Book-Entry Only **RATINGS: (See "Ratings" herein)**

In the opinion of Co-Bond Counsel, interest on the 2017A Bonds is not includable in gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions, subject to the condition described in "TAX MATTERS" herein and interest on the 2017A Bonds is not treated as an item of tax preference under Section 57 of the Internal Revenue Code of 1986, as amended (the "Code") for purposes of the individual and corporate alternative minimum taxes; however, under the Code, such interest may be subject to certain other taxes affecting corporate holders of the 2017A Bonds. In the opinion of Co-Bond Counsel, interest on the 2017B Bonds is not includable in gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions, except for interest on any 2017B Bond during any period such 2017B Bond is held by a person who is a "substantial user" of the facilities financed or refinanced by the 2017B Bonds or a "related person" within the meaning of Section 147(a) of the Code and subject to the condition described in "TAX MATTERS" herein. Interest on the 2017B Bonds is treated as an item of tax preference under Section 57 of the Code for purposes of the individual and corporate alternative minimum taxes. Under the laws of the Commonwealth of Pennsylvania, the 2017 Bonds are exempt from personal property taxes in Pennsylvania, and interest on the 2017 Bonds is exempt from Pennsylvania personal income tax and the Pennsylvania corporate net income tax. For a more complete discussion, see "TAX MATTERS" herein. For information relating to the federal tax reform legislation recently released by the committee on conference, see "Changes in Law and Post Issuance Events" herein.

$692,530,000
THE CITY OF PHILADELPHIA, PENNSYLVANIA
AIRPORT REVENUE AND REFUNDING BONDS,
SERIES 2017
Consisting of

$138,630,000 Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT)

$553,900,000 Airport Revenue and Refunding Bonds, Series 2017B (AMT)

Dated: Date of Delivery **Due:** July 1, as shown on inside covers

Defined Terms All capitalized terms that are not otherwise defined on this cover page have the meanings provided to such terms in this Official Statement.

The Bonds The City of Philadelphia, Pennsylvania (the "City"), a corporation and body politic and City of the First Class existing under the laws of the Commonwealth of Pennsylvania (the "Commonwealth") is issuing its $692,530,000 Airport Revenue and Refunding Bonds, Series 2017, consisting of $138,630,000 aggregate principal amount of Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) (the "2017A Bonds") and $553,900,000 aggregate principal amount of Airport Revenue and Refunding Bonds, Series 2017B (AMT) (the "2017B Bonds", and together with the 2017A Bonds, the "2017 Bonds") for the benefit of the Philadelphia International Airport (the "Airport") and Northeast Philadelphia Airport (the "Northeast Airport") owned by the City and operated by the Division of Aviation of the City's Department of Commerce.

Purpose The 2017 Bonds are being issued for the purpose of providing funds to (i) currently refund certain outstanding commercial paper notes, (ii) pay for a portion of the costs of the 2017 Capital Project (as defined herein), (iii) currently refund all of the City's outstanding Airport Revenue Bonds, Series 2007A, and all of the City's outstanding Airport Revenue Refunding Bonds, Series 2007B, and a portion of the 2017B Bond proceeds will be used to currently refund all of the City's outstanding Airport Revenue Refunding Bonds, Series 2009A as more fully described herein under "PLAN OF REFUNDING – Refunded Bonds" (the "Refunded Bonds"), (iv) provide for capitalized interest on a portion of the 2017 Bonds, (v) fund a deposit to the Parity Sinking Fund Reserve Account and (vi) pay the costs of issuance of the 2017 Bonds.

Security **THE 2017 BONDS ARE LIMITED OBLIGATIONS OF THE CITY OF PHILADELPHIA PAYABLE SOLELY FROM THE PLEDGED AMOUNTS (AS DESCRIBED HEREIN). THE 2017 BONDS ARE NOT SECURED BY A PLEDGE OF THE FULL FAITH, CREDIT OR TAXING POWER OF THE CITY. THE 2017 BONDS DO NOT CREATE ANY DEBT OR CHARGE AGAINST THE TAX OR GENERAL REVENUES OF THE CITY, OR CREATE A LIEN AGAINST ANY PROPERTY OF THE CITY OTHER THAN THE PLEDGED AMOUNTS.**

Bond Insurance The scheduled payment of principal of and interest on the 2017A Bonds maturing on July 1, 2034 through and including July 1, 2037 and the 2017B Bonds maturing on July 1, 2036 (the "Insured Bonds"), when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Insured Bonds by **ASSURED GUARANTY MUNICIPAL CORP.**

Redemption The 2017 Bonds are subject to optional and mandatory redemption prior to maturity. See "DESCRIPTION OF THE 2017 BONDS – Optional Redemption of the 2017 Bonds" and "– Mandatory Redemption".

Interest Payment Dates Interest on the 2017 Bonds is payable semiannually on each January 1 and July 1, commencing July 1, 2018.

Tax Status For information on the tax status of the 2017 Bonds, see the italicized language at the top of this cover page and "TAX MATTERS" herein.

Delivery Date It is expected that the 2017 Bonds will be available for delivery to The Depository Trust Company ("DTC") via DTC's FAST automated securities transfer program on or about December 20, 2017.

The Sixteenth Supplemental Ordinance provides for certain amendments to the General Ordinance (as defined herein), some of which amendments became effective upon enactment without the consent of any Bondholders and others of which will become effective upon the consent of the applicable percentages of Bondholders. By acceptance of a confirmation of purchase of the 2017 Bonds, each Beneficial Owner (i.e., the actual purchasers of the 2017 Bonds) will be deemed to have approved and agreed to the amendments to the General Ordinance described herein. See "AMENDMENTS TO THE GENERAL ORDINANCE" herein.

THIS COVER PAGE CONTAINS CERTAIN INFORMATION FOR QUICK REFERENCE ONLY. IT IS NOT INTENDED TO BE A SUMMARY OF THE 2017 BONDS OR THIS OFFICIAL STATEMENT. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT, INCLUDING THE APPENDICES, WHICH ARE AN INTEGRAL PART HEREOF, TO OBTAIN INFORMATION ESSENTIAL TO THE MAKING OF AN INFORMED INVESTMENT DECISION REGARDING THE 2017 BONDS.

The 2017 Bonds are offered when, as and if issued and accepted by the Underwriters, subject to the approving legal opinion of Saul Ewing Arnstein & Lehr LLP and Andre C. Dasent, P.C., both of Philadelphia, Pennsylvania, Co-Bond Counsel. Certain legal matters relating to disclosure will be passed upon for the City by Nixon Peabody LLP, New York, New York, and Turner Law, P.C., Philadelphia, Pennsylvania, Co-Disclosure Counsel. Certain legal matters will be passed upon for the City of Philadelphia by the City Solicitor. Certain legal matters will be passed upon for the Underwriters by their Co-Underwriters' Counsel, Eckert Seamans Cherin & Mellott and Ahmad Zaffarese, LLC, both of Philadelphia, Pennsylvania.

BofA Merrill Lynch **Siebert Cisneros Shank & Co., L.L.C.**

Jefferies **Loop Capital Markets**

Barclays BNY Mellon Capital Markets, LLC PNC Capital Markets LLC

Raymond James Stern Brothers & Co. TD Securities

Dated: December 15, 2017

$692,530,000
CITY OF PHILADELPHIA, PENNSYLVANIA
AIRPORT REVENUE AND REFUNDING BONDS,
SERIES 2017

Consisting of

$138,630,000
Airport Revenue and Refunding Bonds,
Series 2017A (Non-AMT)

$553,900,000
Airport Revenue and Refunding Bonds,
Series 2017B (AMT)

MATURITY SCHEDULES

$97,595,000 Series 2017A (Non-AMT) Serial Bonds

Maturity Date (July 1)	Principal Amount	Interest Rate	Price	Yield	CUSIP** 717817
2018	$2,670,000	5.000%	101.922	1.35%	SS0
2019	3,805,000	5.000	105.151	1.58	ST8
2020	4,270,000	5.000	108.165	1.69	SU5
2021	4,520,000	5.000	110.970	1.78	SV3
2022	4,740,000	5.000	113.628	1.85	SW1
2023	4,980,000	5.000	115.802	1.97	SX9
2024	5,230,000	5.000	117.810	2.07	SY7
2025	5,480,000	5.000	119.409	2.19	SZ4
2026	5,765,000	5.000	120.804	2.30	TA8
2027	6,045,000	5.000	122.031	2.40	TB6
2028	4,035,000	5.000	121.083†	2.50	TC4
2029	4,235,000	5.000	120.330†	2.58	TD2
2030	4,450,000	5.000	119.677†	2.65	TE0
2031	4,670,000	5.000	119.120†	2.71	TF7
2032	4,905,000	5.000	118.658†	2.76	TG5
2033	5,150,000	5.000	118.290†	2.80	TH3
2034*	5,410,000	3.000	98.077	3.15	TJ9
2035*	5,570,000	3.125	98.470	3.24	TK6
2036*	5,745,000	3.125	97.996	3.27	TL4
2037*	5,920,000	3.250	99.283	3.30	TM2

$15,965,000 5.00% Series 2017A Term Bonds maturing July 1, 2042, Price 116.741†, Yield – 2.97%, CUSIP**: 717817TN0

$25,070,000 5.00% Series 2017A Term Bonds maturing July 1, 2047, Price 116.380† Yield – 3.01%, CUSIP**: 717817TP5

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† Priced at the stated yield to the July 1, 2027 optional redemption date at a redemption price of 100% of the principal amount of such 2017 Bonds or portions thereof to be redeemed, plus accrued interest to the redemption date.

* Insured by Assured Guaranty Municipal Corp.

** CUSIP is a registered trademark of the American Bankers Association (the "ABA"). CUSIP data is provided by CUSIP Global Services, which is managed on behalf of the ABA by S&P Capital IQ, a division of McGraw-Hill Financial, Inc. The CUSIP numbers listed above are being provided solely for the convenience of the holders of the 2017 Bonds only at the time of issuance of the 2017 Bonds and the City and the Underwriters do not make any representation with respect to such CUSIP numbers or undertake any responsibility for their accuracy now or at any time in the future. The CUSIP numbers are subject to being changed after the issuance of the 2017 Bonds as a result of various subsequent actions including but not limited to, a refunding in whole or in part of the 2017 Bonds or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that may be applicable to all or a portion of the 2017 Bonds.

$692,530,000
CITY OF PHILADELPHIA, PENNSYLVANIA AIRPORT REVENUE AND REFUNDING BONDS,
SERIES 2017

Consisting of

$138,630,000
Airport Revenue and Refunding Bonds,
Series 2017A (Non-AMT)

$553,900,000
Airport Revenue and Refunding Bonds,
Series 2017B (AMT)

MATURITY SCHEDULES

$334,930,000 Series 2017B (AMT) Serial Bonds

Maturity Date (July 1)	Principal Amount	Interest Rate	Price	Yield	CUSIP** 717817
2018	$7,045,000	5.000%	101.868	1.45%	TQ3
2019	9,025,000	5.000	104.964	1.70	TR1
2020	10,350,000	5.000	107.803	1.83	TS9
2021	14,970,000	5.000	110.464	1.92	TT7
2022	15,715,000	5.000	112.792	2.03	TU4
2023	16,505,000	5.000	114.841	2.14	TV2
2024	17,330,000	5.000	116.416	2.28	TW0
2025	18,200,000	5.000	117.738	2.41	TX8
2026	19,110,000	5.000	119.013	2.51	TY6
2027	20,060,000	5.000	120.237	2.59	TZ3
2028	17,535,000	5.000	118.750†	2.75	UA6
2029	18,415,000	5.000	118.015†	2.83	UB4
2030	15,770,000	5.000	117.376†	2.90	UC2
2031	16,570,000	5.000	116.832†	2.96	UD0
2032	17,395,000	5.000	116.380†	3.01	UE8
2033	18,265,000	5.000	116.021†	3.05	UF5
2034	19,180,000	5.000	115.662†	3.09	UG3
2035	20,140,000	5.000	115.395†	3.12	UH1
2036*	21,145,000	5.000	116.200†	3.03	UJ7
2037	22,205,000	5.000	115.128†	3.15	UK4

$85,170,000 5.00% Series 2017B Term Bonds maturing July 1, 2042, Price 114.950† Yield – 3.17%, CUSIP**: 717817UL2

$133,800,000 5.00% Series 2017B Term Bonds maturing July 1, 2047, Price 114.507† Yield – 3.22%, CUSIP**: 717817UM0

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† Priced at the stated yield to the July 1, 2027 optional redemption date at a redemption price of 100% of the principal amount of such 2017 Bonds or portions thereof to be redeemed, plus accrued interest to the redemption date.

* Insured by Assured Guaranty Municipal Corp.

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THE CITY OF PHILADELPHIA, PENNSYLVANIA

MAYOR
JAMES F. KENNEY

MAYOR'S CHIEF OF STAFF

Jane Slusser

MAYOR'S CABINET

Michael DiBerardinis .... Managing Director
Rob Dubow .... Director of Finance
Sozi Tulante, Esq. .... City Solicitor
Nolan Atkinson .... Chief Diversity and Inclusion Officer
James Engler .... Deputy Mayor for Policy and Legislation
Harold Epps .... Commerce Director
Anne Fadullon .... Director of Planning and Development
Otis Hackney .... Chief Education Officer
Sheila Hess .... City Representative
Ellen Kaplan .... Chief Integrity Officer
Amy L. Kurland .... Inspector General
Richard Lazer .... Deputy Mayor for Labor Relations
Deborah Mahler .... Deputy Mayor for Intergovernmental Affairs
Christine Derenick-Lopez .... Chief Administrative Officer

City Treasurer
Rasheia Johnson

PHILADELPHIA DEPARTMENT OF COMMERCE
DIVISION OF AVIATION

Rochelle L. Cameron .... Chief Executive Officer
Tracy S. Borda .... Chief Financial Officer
Keith Brune .... Chief Operating Officer
Folasade A. Olanipekun-Lewis .... Chief Administrative Officer
Diego Rincón .... Deputy Director of Aviation – Capital Development
James Tyrrell .... Chief Revenue Officer

City Controller
Alan L. Butkovitz

CO-FINANCIAL ADVISORS
Frasca & Associates, LLC
PFM Financial Advisors LLC

FISCAL AGENT
U.S. Bank National Association

No dealer, broker, salesperson or other person has been authorized by the City or the Underwriters to give any information or to make representations, other than as contained in this Official Statement, and if given or made, such other information or representations must not be relied upon as having been authorized by the City or the Underwriters. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2017 Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

This Official Statement is not to be construed as a contract or agreement between the City, the Underwriters and the purchasers or owners of any 2017 Bonds. The information set forth herein has been furnished by the City and includes information obtained from other sources, all of which are believed to be reliable. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City or of the Division of Aviation of the Department of Commerce or in any other matters discussed herein since the date hereof or the date as of which particular information is given, if earlier. Such information and expressions of opinion are made for the purpose of providing information to prospective investors and are not to be used for any other purpose or relied on by any other party.

The order and placement of materials in this Official Statement, including the Appendices, are not to be deemed a determination of relevance, materiality or importance, and this Official Statement, including the cover page, the inside cover pages and the Appendices, must be considered in its entirety. The captions and headings in this Official Statement are for convenience only and in no way define, limit or describe the scope or intent, or affect the meaning or construction, of any provisions or sections of this Official Statement. The offering of the 2017 Bonds is made only by means of this entire Official Statement.

The statements contained in this Official Statement, including the Appendices, and in any other information provided by the City and other parties to this transaction described herein that are not purely historical are forward-looking statements. Such forward-looking statements can be identified, in some cases, by terminology such as "projects," "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "illustrate," "example," and "continue," or the singular, plural, negative or other derivations of these of other comparable terms. Readers should not place undue reliance on forward-looking statements. All forward-looking statements included in this Official Statement are based on information available to such parties on the date hereof, and the City assumes no obligation to update any such forward-looking statements. The forward-looking statements included herein are necessarily based on various assumptions and estimates and are inherently subject to various risks and uncertainties, including, but not limited to, risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in various important factors. Accordingly, actual results may vary from the projections, forecasts and estimates contained in this Official Statement, including the Appendices, and such variations may be material, which could affect the ability to fulfill some or all of the obligations under the 2017 Bonds.

The Underwriters (who have provided this sentence for inclusion herein) have reviewed the information in this Official Statement, including the Appendices, in accordance with, and as a part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

Assured Guaranty Municipal Corp. ("AGM") makes no representation regarding the 2017 Bonds or the advisability of investing in the 2017 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE" and APPENDIX IX – "SPECIMEN MUNICIPAL BOND INSURANCE POLICY".

In connection with the offering of the 2017 Bonds, the Underwriters may overallot or effect transactions which stabilize or maintain the market price of the 2017 Bonds at a level above those which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time without prior notice. The Underwriters may offer and sell the 2017 Bonds to certain dealers at prices lower than the public offering prices stated on the inside cover pages hereof and said public offering prices may be changed from time to time by the Underwriters without prior notice.

Upon issuance, the 2017 Bonds will not be registered under the Securities Act of 1933, as amended, and will not be listed on any stock or other Securities Exchange, nor have the Ordinances been qualified under the Trust Indenture Act of 1939, as amended, in reliance upon exemptions contained in such acts.

THE 2017 BONDS HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS OFFICIAL STATEMENT; ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

THIS OFFICIAL STATEMENT IS BEING PROVIDED TO PROSPECTIVE PURCHASERS EITHER IN BOUND PRINTED FORM ("ORIGINAL BOUND FORMAT") OR IN ELECTRONIC FORMAT ON THE FOLLOWING WEBSITE: WWW.MCELWEEQUINN.COM. THIS OFFICIAL STATEMENT MAY BE RELIED UPON ONLY IF IT IS IN ITS ORIGINAL BOUND FORMAT OR IF IT IS PRINTED IN FULL DIRECTLY FROM SUCH WEBSITE.

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Summary of the Offering

This summary is subject in all respects to more complete information contained in this Official Statement and should not be considered a complete statement of the facts material to making an investment decision. The offering of the 2017 Bonds to potential investors is made only by means of the entire Official Statement, including the cover page, the inside cover pages, and the Appendices.

Issuer:	The City of Philadelphia, Pennsylvania (the "City"), a corporation and body politic and City of the First Class existing under the laws of the Commonwealth of Pennsylvania, for the benefit of the Airport System owned by the City and operated by the Division of Aviation of the City's Department of Commerce.
Bonds Offered:	$692,530,000 aggregate principal amount of Airport Revenue and Refunding Bonds consisting of $138,630,000 aggregate principal amount of Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) (the "2017A Bonds") and $553,900,000 aggregate principal amount of Airport Revenue and Refunding Bonds, Series 2017B (AMT) (the "2017B Bonds", and together with the 2017A Bonds, the "2017 Bonds").
Maturities:	The Bonds mature on the dates and in the principal amounts set forth on the inside cover pages hereof.
Interest Payment Dates:	Interest on the Bonds is payable semiannually on each January 1 and July 1, commencing July 1, 2018.
Use of Proceeds:	The 2017 Bonds are being issued for the purpose of providing funds to (i) currently refund certain outstanding commercial paper notes, (ii) pay for a portion of the costs of the 2017 Capital Project (as defined herein), (iii) currently refund all of the City's outstanding Airport Revenue Bonds, Series 2007A, and all of the City's outstanding Airport Revenue Refunding Bonds, Series 2007B, and a portion of the 2017B Bond proceeds will be used to currently refund all of the City's outstanding Airport Revenue Refunding Bonds, Series 2009A as more fully described herein under "PLAN OF REFUNDING – Refunded Bonds" (the "Refunded Bonds"), (iv) provide for capitalized interest on a portion of the 2017 Bonds, (v) fund a deposit to the Parity Sinking Fund Reserve Account and (vi) pay the costs of issuance of the 2017 Bonds.
Redemption:	The 2017 Bonds are subject to optional and mandatory redemption prior to maturity. See "DESCRIPTION OF THE 2017 BONDS – Optional Redemption of the 2017 Bonds" and "– Mandatory Redemption" herein.
Security and Sources of Payment:	Pursuant to the General Ordinance (as defined herein), the City has covenanted that the 2017 Bonds, together with all other parity Airport Revenue Bonds (as defined herein) issued under and outstanding or subject to the General Ordinance, are and will be equally and ratably secured by a lien on and security interest in (i) Project Revenues (as defined herein); (ii) amounts payable to the City under a Qualified Swap; (iii) all amounts on deposit in or credited to the Aviation Funds (including the Parity Sinking Fund Reserve Account), except for amounts deposited into any Non-Parity Sinking Fund Reserve Subaccount; and (iv) proceeds of the foregoing (the amounts described in subsections (i) through (iv) are sometimes hereinafter referred to, collectively, as the "Pledged Amounts"). On May 17, 2017, the Sixteenth Supplemental Ordinance (the "Sixteenth Supplemental Ordinance") to the General Ordinance was approved by the Mayor. The Sixteenth Supplemental Ordinance provides for certain amendments to the General Ordinance, some of which amendments became effective upon enactment without the consent of any Bondholders and others of which will become effective upon the consent of the applicable percentages of Bondholders, as described herein under "AMENDMENTS TO THE GENERAL ORDINANCE". Among the amendments that are currently effective is a provision that permits the City to elect to designate any available Passenger Facility Charges as "Designated PFC Revenues for Debt Service" and make available such Designated PFC Revenues for Debt Service to the payment of debt service on designated Airport Revenue Bonds, in the amount and for the period of time designated by the City, subject to any applicable prior liens and pledges. To the extent made available to any Airport Revenue Bonds, the Designated PFC Revenues for Debt Service do <u>not</u> constitute "Pledged Amounts" as described herein. The 2017 Bonds are not currently payable from Designated PFC Revenues for Debt Service, however the City may in the future designate available PFCs as Designated PFC Revenues for Debt Service for some or all of the 2017 Bonds pursuant to the requirements of the Sixteenth Supplemental Ordinance. See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS" herein. In addition, one of the amendments that will become effective with the consent of 100% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of Airport Revenue Bonds Outstanding, would permit the City to release certain revenues ("Released Revenues") from the definition of "Project Revenues" upon satisfaction of certain historical and projected debt service coverage tests, delivery of an opinion of Bond Counsel to the effect that the tax-exemption of the Airport Revenue Bonds would not be adversely affected and ratings confirmation. See "AMENDMENTS TO THE GENERAL ORDINANCE" herein.

THE 2017 BONDS ARE LIMITED OBLIGATIONS OF THE CITY PAYABLE SOLELY FROM THE PLEDGED AMOUNTS. THE 2017 BONDS ARE NOT SECURED BY A PLEDGE OF THE FULL FAITH, CREDIT OR TAXING POWER OF THE CITY. THE 2017 BONDS DO NOT CREATE ANY DEBT OR CHARGE AGAINST THE TAX OR GENERAL REVENUES OF THE CITY, OR CREATE A LIEN AGAINST ANY PROPERTY OF THE CITY OTHER THAN THE PLEDGED AMOUNTS.

See "SECURITY FOR THE AIRPORT REVENUE BONDS" herein.

Bond Insurance

The scheduled payment of principal of and interest on the 2017A Bonds maturing on July 1, 2034 through and including July 1, 2037 and the 2017B Bonds maturing on July 1, 2036 (the "Insured Bonds"), when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Insured Bonds by **ASSURED GUARANTY MUNICIPAL CORP.**

Parity Sinking Fund Reserve Account:

The City is required to maintain an aggregate balance in the Parity Sinking Fund Reserve Account for all Airport Revenue Bonds which are to be secured by the Parity Sinking Fund Reserve Account equal to the lesser of (a) the greatest amount of Debt Service Requirements on Airport Revenue Bonds payable in any one fiscal year, determined as of any particular date, or (b) the maximum amount permitted by the Internal Revenue Code of 1986, as amended (the "Code"), to be maintained without yield restriction for bonds the interest on which is not includable in gross income for Federal income tax purposes; provided, however, that additional Airport Revenue Bonds may be secured by a Non-Parity Sinking Fund Reserve Account under certain circumstances. See "SECURITY FOR THE AIRPORT REVENUE BONDS – Sinking Fund Reserve Account" herein.

Under the Sixteenth Supplemental Ordinance, certain amendments to the General Ordinance affecting the Parity Sinking Fund Reserve Account and the amount to be deposited therein are subject to Bondholder consent, including the rating requirements relating to Credit Facilities and Substitute Credit Facilities that can be deposited therein and the definition of "Sinking Fund Reserve Requirement". See "AMENDMENTS TO THE GENERAL ORDINANCE" herein.

Amendments to General Ordinance:

The Sixteenth Supplemental Ordinance provides for certain amendments to the General Ordinance, some of which amendments became effective upon enactment without the consent of any Bondholders and others of which will become effective upon the consent of the applicable percentages of Bondholders. By acceptance of a confirmation of purchase of the 2017 Bonds, each Beneficial Owner (i.e., the actual purchasers of the 2017 Bonds) will be deemed to have approved and agreed to the amendments to the General Ordinance described herein. See "AMENDMENTS TO THE GENERAL ORDINANCE" herein. The City, through the Director of Finance, will publish notice to all Bondholders upon the occurrence of the consent of at least sixty-seven percent (67%) of the Bondholders and upon the occurrence of the consent of one-hundred percent (100%) of the Bondholders. Publication through the Electronic Municipal Market Access System ("EMMA") or such other nationally recognized municipal securities information repository shall constitute acceptable notice.

Rate Covenant:

The City covenants with the holders of the Airport Revenue Bonds that it will, at a minimum, impose, charge and recognize as revenues in each fiscal year such rentals, charges and fees as shall, together with that portion of the Aviation Operating Fund balance attributable to Amounts Available for Debt Service and carried forward at the beginning of such fiscal year and together with all other Amounts Available for Debt Service to be received in such fiscal year, be equal to not less than the greater of: (a) the sum of: (i) all Net Operating Expenses payable during such fiscal year; (ii) 150% of the amount required to pay the Debt Service Requirements during such fiscal year; (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such fiscal year; and (iv) the amount, if any, required to be paid into the Renewal Fund during such fiscal year; or (b) the sum of: (i) all Operating Expenses payable during such fiscal year, and (ii) (A) all Debt Service Requirements during such fiscal year, (B) all debt service requirements during such fiscal year in respect of all outstanding General Obligation Bonds issued for improvements to the Airport System and all outstanding NSS General Obligation Bonds issued for improvements to the Airport System, (C) all the debt service requirements during such fiscal year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service, (D) all amounts required to repay loans among the funds made pursuant to the General Ordinance, (E) the amount, if any, required to be paid into the Sinking Fund Reserve Account or Renewal Fund during such fiscal year, and (F) all amounts required to be paid under Exchange Agreements. See "SECURITY FOR THE AIRPORT REVENUE BONDS – Rate Covenant" herein. See also "SECURITY FOR THE AIRPORT REVENUE BONDS – Certain Provisions of General Ordinance Effective Upon City Election and Certain Consents" for a discussion of certain events that may allow the City to use an alternative rate covenant.

Under the Sixteenth Supplemental Ordinance, certain amendments to the General Ordinance affecting the Rate Covenant, including an amendment to the manner in which debt service on Balloon Bonds is calculated, would become effective with Bondholder consent. See "AMENDMENTS TO THE GENERAL ORDINANCE" herein

Authorized Denominations:

The 2017 Bonds will be issued as registered bonds in denominations of $5,000 or any integral multiple thereof.

Form and Depository:	The 2017 Bonds will be delivered solely in registered form under a global book-entry system through the facilities of DTC via DTC's FAST automated securities transfer program. See APPENDIX VIII.
Fiscal Agent/Registrar:	The fiscal agent for the 2017 Bonds is U.S. Bank National Association, Philadelphia, Pennsylvania.
Tax Status:	For information on the tax status of the Bonds, see the italicized language at the top of the cover page and "TAX MATTERS" herein.
Ratings:	

	Uninsured	Insured
Moody's:	"A2"	"A2"
Fitch:	"A"	N/A
S&P	"A"	"AA"

See "RATINGS" herein.

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OFFICIAL STATEMENT

relating to

$692,530,000
CITY OF PHILADELPHIA, PENNSYLVANIA
AIRPORT REVENUE AND REFUNDING BONDS,
SERIES 2017

Consisting of

$138,630,000 Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT)	**$553,900,000 Airport Revenue and Refunding Bonds, Series 2017B (AMT)**

INTRODUCTION

General

This Official Statement, including the cover page and appendices attached hereto, sets forth certain information in connection with the offering and sale by the City of Philadelphia, Pennsylvania (the "City"), a corporation and body politic and City of the First Class existing under the laws of the Commonwealth of Pennsylvania (the "Commonwealth"), of its Airport Revenue and Refunding Bonds, Series 2017 in the aggregate principal amount of $692,530,000, consisting of $138,630,000 Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) (the "2017A Bonds") and $553,900,000 Airport Revenue and Refunding Bonds, Series 2017B (AMT) (the "2017B Bonds", and together with the 2017A Bonds, the "2017 Bonds"). The 2017 Bonds are authorized and are being issued under and pursuant to The First Class City Revenue Bond Act of October 18, 1972, Act No. 234 (the "Act"), the City's Amended and Restated General Airport Revenue Bond Ordinance, approved June 16, 1995 (Bill No. 950282), as amended and supplemented (the "General Ordinance"), the Fifteenth Supplemental Ordinance (Bill No. 161001 approved by the Mayor on February 8, 2017) (the "Fifteenth Supplemental Ordinance") and the Sixteenth Supplemental Ordinance (Bill No. 170308 approved by the Mayor on May 17, 2017) (the "Sixteenth Supplemental Ordinance" and together with the General Ordinance and Fifteenth Supplemental Ordinance, the "Ordinances"). U.S. Bank National Association is serving as Fiscal Agent and Sinking Fund Depository for the 2017 Bonds (the "Fiscal Agent"). Unless otherwise indicated, capitalized terms used in this Official Statement, including the cover page hereto, are defined in APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS".

THE 2017 BONDS ARE LIMITED OBLIGATIONS OF THE CITY PAYABLE SOLELY FROM THE PLEDGED AMOUNTS (AS DESCRIBED HEREIN). THE 2017 BONDS ARE NOT SECURED BY A PLEDGE OF THE FULL FAITH, CREDIT OR TAXING POWER OF THE CITY. THE 2017 BONDS DO NOT CREATE ANY DEBT OR CHARGE AGAINST THE TAX OR GENERAL REVENUES OF THE CITY, OR CREATE A LIEN AGAINST ANY PROPERTY OF THE CITY OTHER THAN THE PLEDGED AMOUNTS.

The Airport System

The Airport System consists of the Philadelphia International Airport (the "Airport") and the Northeast Philadelphia Airport (the "Northeast Airport", together with the Airport are collectively, the "Airport System") and is owned by the City and operated by the Division of Aviation of the City's Department of Commerce (the "Division of Aviation"). In calendar year 2016, it was ranked 19th in the United States in terms of total passengers and 18th in terms of total cargo weight handled according to Airports Council International. In fiscal year 2017 (ending June 30), the Airport served a total of approximately 29.6 million passengers, a decrease of 5.4% from the previous year. The Airport currently serves as a major hub for American Airlines. As set forth in the Report of the Airport Consultant (the "Market Analysis and Financial Projections"), American Airlines, together with its regional airline affiliates, accounted for approximately 10.4 million enplaned passengers, or 70.0% of the Airport's enplaned passengers, in fiscal year 2017. For a further description of the Airport System, the Service Area of the Airport and the Air Transport Industry, see "THE AIRPORT SYSTEM – MANAGEMENT AND DESCRIPTION", "THE AIRPORT SYSTEM – AIRPORT ACTIVITY AND SIGNATORY AIRLINES", "THE AIRPORT SERVICE REGION" and "CERTAIN INVESTMENT CONSIDERATIONS".

Brief descriptions of the 2017 Bonds, the security therefor, the Airport System and certain data about the City are included in this Official Statement. Such descriptions do not purport to be comprehensive or definitive. All references in this Official Statement to the Act, the General Ordinance, the Fifteenth Supplemental Ordinance and the Sixteenth Supplemental Ordinance are qualified by reference to the definitive form of each such document in its entirety. Copies of the Act, the General Ordinance, the Fifteenth Supplemental Ordinance, the Sixteenth Supplemental Ordinance and the financial statements of the City for the fiscal year ended June 30, 2016, are available from the Office of the Director of Finance, 13th Floor, Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102. A copy of the financial statements of the City for the fiscal year ended June 30, 2016 may be downloaded at http://www.phila.gov/investor. The Market Analysis and Financial Projections is attached hereto as APPENDIX I. Financial statements of the Division of Aviation for the fiscal year ended June 30, 2016, are attached hereto as APPENDIX II. Certain information concerning the government of and fiscal affairs of the City is attached hereto as APPENDIX III. Summaries of legislation authorizing the issuance of the City's Airport Revenue Bonds is attached hereto as APPENDIX IV. Summaries of certain provisions of the Airport-Airline Use and Lease Agreement (the "Airline Agreement") is attached hereto as APPENDIX V. The form of approving opinion of Co-Bond Counsel that will be delivered in connection with the issuance of the Bonds is attached hereto as APPENDIX VI. The form of the Continuing Disclosure Agreement is attached hereto as APPENDIX VII. The information concerning the book-entry only system is attached hereto as APPENDIX VIII.

The City Controller has examined and expressed opinions on the basic financial statements of the City contained in the fiscal year 2016 Comprehensive Annual Financial Report ("CAFR"). The City Controller has not participated in the preparation of this Official Statement nor in the preparation of the budget estimates and projections and cash flow statements and forecasts set forth in various tables contained in this Official Statement. Consequently, the City

Controller expresses no opinion with respect to any of the data contained in this Official Statement other than what is contained in the fiscal year 2016 CAFR.

Under the caption "CERTAIN INVESTMENT CONSIDERATIONS" is a discussion of certain investment risks which, among others, may affect repayment of and security for the 2017 Bonds.

Certain statements contained in this Official Statement, including the Appendices, and in any other information provided by the City and other parties to this transaction described herein that are not purely historical are forward-looking statements. Readers should not place undue reliance on forward-looking statements. Actual results may vary from the projections, forecasts and estimates contained in this Official Statement, including the Appendices, and such variations may be material, which could affect the ability to fulfill some or all of the obligations under the 2017 Bonds. See "CERTAIN INVESTMENT CONSIDERATIONS – Forward Looking Statements."

PLAN OF FINANCE

General

The 2017 Bonds are being issued for the purpose of providing funds to (i) currently refund certain outstanding commercial paper notes, (ii) pay for a portion of the costs of the 2017 Capital Project (as defined herein), (iii) currently refund all of the City's outstanding Airport Revenue Bonds, Series 2007A, and all of the City's outstanding Airport Revenue Refunding Bonds, Series 2007B, and a portion of the 2017B Bond proceeds will be used to currently refund all of the City's outstanding Airport Revenue Refunding Bonds, Series 2009A as more fully described herein under "PLAN OF REFUNDING – Refunded Bonds" (the "Refunded Bonds"), (iv) provide for capitalized interest on a portion of the 2017 Bonds, (v) fund a deposit to the Parity Sinking Fund Reserve Account and (vi) pay the costs of issuance of the 2017 Bonds.

2017 Capital Project

A portion of the proceeds from the sale of the 2017 Bonds will be used to finance the 2017 Capital Project, which includes airfield and apron projects, terminal and landside improvements, security and information technology improvements and additional infrastructure projects for the Airport and Northeast Airport (collectively, the "2017 Capital Project").

Plan of Refunding

A portion of the proceeds from the sale of the 2017 Bonds will be used to (i) currently refund certain outstanding commercial paper notes, and (ii) currently refund all of the City's outstanding Airport Revenue Bonds, Series 2007A, and all of the City's outstanding Airport Revenue Refunding Bonds, Series 2007B, and a portion of the 2017B Bond proceeds will be used to currently refund all of the City's outstanding Airport Revenue Refunding Bonds, Series 2009A (collectively, the "Refunded Bonds").

A portion of the proceeds of the 2017 Bonds will be deposited with the Fiscal Agent on the closing date of the 2017 Bonds in an amount sufficient to redeem the Refunded Bonds on the date of delivery of the 2017 Bonds. Upon such deposit with the Fiscal Agent, the Refunded Bonds will no longer be deemed outstanding under the General Ordinance.

Refunded Bonds

The following table sets forth the maturity date for each of the Refunded Bonds, the outstanding principal amount of the Refunded Bonds, the principal amount of each such maturity being refunded, the redemption price of such maturity and the applicable CUSIP numbers for each maturity.

Series	Maturity (June 15)	Outstanding Principal Amount	Amount To Be Refunded	Redemption Price	CUSIP Number 717817*
2007A	2018	$4,440,000	$4,440,000	100%	JZ4
2007A	2019	4,660,000	4,660,000	100%	KA7
2007A	2020	4,895,000	4,895,000	100%	KB5
2007A	2021	5,140,000	5,140,000	100%	KC3
2007A	2023	11,060,000	11,060,000	100%	KD1
2007A	2025	12,195,000	12,195,000	100%	KE9
2007A	2027	13,445,000	13,445,000	100%	KF6
2007A	2032	39,950,000	39,950,000	100%	KG4
2007A	2037	50,995,000	50,995,000	100%	KH2
2007B	2018	3,720,000	3,720,000	100%	KU3
2007B	2019	3,905,000	3,905,000	100%	KV1
2007B	2021	8,405,000	8,405,000	100%	KW9
2007B	2023	9,270,000	9,270,000	100%	KX7
2007B	2025	10,220,000	10,220,000	100%	KY5
2007B	2027	11,265,000	11,265,000	100%	KZ2
2009A(1)	2018	2,120,000	2,120,000	100%	LY4
2009A(1)	2019	2,205,000	2,205,000	100%	LZ1
2009A(1)	2020	2,295,000	2,295,000	100%	MA5
2009A(1)	2021	2,395,000	2,395,000	100%	MB3
2009A(1)	2022	2,500,000	2,500,000	100%	MC1
2009A(1)	2023	1,420,000	1,420,000	100%	MD9
2009A(1)	2024	3,940,000	3,940,000	100%	ME7
2009A(1)	2029	16,055,000	16,055,000	100%	MF4

* Neither the City nor the Underwriters make any representation with respect to such CUSIP numbers or undertake any responsibility for their accuracy now or at any time in the future.
(1) To be currently refunded by the 2017B Bond proceeds.

AUTHORIZATION FOR THE 2017 BONDS

The 2017 Bonds are authorized and are being issued under the Act, the General Ordinance, the Fifteenth Supplemental Ordinance and the Sixteenth Supplemental Ordinance. The Act authorizes a City of the First Class to issue revenue bonds to finance certain revenue producing projects and to refund any such bonds or other bonds of the City issued for the foregoing purposes. Such bonds must be payable solely from Pledged Amounts (as defined in the General Ordinance) and if designated by the City, such bonds may also be payable by Designated PFC Revenues for Debt Service subject to any applicable prior liens and pledges. To the extent made available to any Airport Revenue Bonds, the Designated PFC Revenues for Debt Service do not constitute "Pledged Amounts" as described herein. Designated PFC Revenues for

Debt Service have not been designated for all or a portion of the 2017 Bonds, however the City may in the future designate PFCs as Designated PFC Revenues for Debt Service for some or all of the 2017 Bonds pursuant to the requirements of the Sixteenth Supplemental Ordinance. See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS" herein. All of the bonds and notes, including the City of Philadelphia, Pennsylvania, Airport Revenue Commercial Paper Notes (the "Commercial Paper Notes"), issued under the General Ordinance are referred to herein collectively as the "Airport Revenue Bonds." See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS — The Amended and Restated General Airport Revenue Bond Ordinance — Summary of Operative Provisions of the General Ordinance-Covenants of the City."

AMENDMENTS TO THE GENERAL ORDINANCE

General

On May 17, 2017, the Sixteenth Supplemental Ordinance (Bill No. 170308) (the "Sixteenth Supplemental Ordinance") was approved by the Mayor. The Sixteenth Supplemental Ordinance provides for certain amendments to the General Ordinance, some of which amendments became effective upon enactment without the consent of any Bondholders and others of which will become effective upon the consent of the applicable percentages of Bondholders, as noted below. Only certain of the amendments of the Sixteenth Supplemental Ordinance are detailed below. For a more complete listing of all amendments made by the Sixteenth Supplemental Ordinance investors must review APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS."

Amendments Effective Without Bondholder Consent

In addition to certain clarifying and administrative amendments, the following amendments became effective upon enactment of the Sixteenth Supplemental Ordinance:

- the definition of "Amounts Available for Debt Service" was amended to include certain portions of the Aviation Operating Fund; and

- a provision was added permitting the City to elect to designate any available Passenger Facility Charges as "Designated PFC Revenues for Debt Service" and make available such Designated PFC Revenues for Debt Service to the payment of debt service on designated Airport Revenue Bonds, in the amount and for the period of time designated by the City, on a subordinate basis to any applicable prior liens and pledges.

Amendments Effective With 67% Bondholder Consent

The following amendments will become effective upon the written consent of 67% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of the Airport Revenue Bonds Outstanding:

- the rating requirement for Credit Facilities and Substitute Credit Facilities from "not lower than the credit rating of any Series of Airport Revenue Bonds which has no Credit Facility" will be lowered to the "A" category;

- the rating requirement for Sinking Fund Reserve Facilities (as defined herein under "SECURITY FOR THE AIRPORT REVENUE BONDS – Sinking Fund Reserve Account") will be lowered from "the second highest rating category" to the "A" category;

- for purposes of the Rate Covenant, the manner of computing debt service on Balloon Bonds for purposes of calculating "Debt Service Requirements" will be revised by assuming a no more than 30-year amortization based upon *The Bond Buyer* 25 Revenue Bond Index or successor index; and

- the percentage of principal amount and Original Value of Airport Revenue Bonds Outstanding needed to consent to future amendments to the Original Ordinance will be decreased from 67% to 51%.

Amendments Effective With 100% Bondholder Consent

The following amendments will become effective upon the written consent of 100% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of the Airport Revenue Bonds Outstanding:

- a definition of "Released Revenues" and an exclusion of the "Released Revenues" from the definition of "Project Revenues" to permit the City to release certain revenues from the pledge of the Ordinance in favor of the Bondholders upon (a) satisfaction of certain historical and projected debt service coverage tests, (b) delivery of an opinion of bond counsel to that effect that tax-exemption on the Airport Revenue Bonds is not adversely affected, and (c) ratings confirmation will be added; and

- the definition of "Sinking Fund Reserve Requirement" will be amended to be the least of (a) 10% of principal amount (or proceeds in the case of discount bonds), (b) maximum annual debt service and (c) 125% of average annual debt service.

A full list of the proposed amendments are also set forth in APPENDIX IV – "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS".

The City may seek the consent of the Holders of currently Outstanding Airport Revenue Bonds and will seek the consent of the Holders of Airport Revenue Bonds to be issued in the future in order to obtain the consent of the requisite percentages of Holders.

BY ACCEPTANCE OF A CONFIRMATION OF PURCHASE OF THE 2017 BONDS, EACH BENEFICIAL OWNER (I.E., THE ACTUAL PURCHASERS OF THE 2017 BONDS) WILL BE DEEMED TO HAVE APPROVED AND AGREED TO THE AMENDMENTS TO THE GENERAL ORDINANCE DESCRIBED HEREIN.

The City issued its $125,000,000 Airport Revenue Bonds, Series 2017 (Federally Taxable) (the "2017 Taxable Bonds"), which 2017 Taxable Bonds were purchased by PNC Bank, National Association (the "Taxable Bonds Purchaser"). As part of that transaction, the Taxable Bonds Purchaser consented to the amendments contained in the Sixteenth Supplemental Ordinance. As of the date of issuance of the 2017 Bonds, taking into consideration the consent of the 2017 Bondholders and the previous consent of the Taxable Bonds Purchaser, the Holders of the 2017 Bonds and the 2017 Taxable Bonds represent consent of $817,530,000 (or approximately 45.6%) of the $1,793,657,000 of currently Outstanding Airport Revenue Bonds (including the Commercial Paper Notes that are expected to remain outstanding after the application of the proceeds of the 2017 Bonds to the refunding of certain Commercial Paper Notes).

The City, through the Director of Finance, will publish notice to all Bondholders upon the occurrence of the consent of at least sixty-seven percent (67%) of the Bondholders and upon the occurrence of the consent of one-hundred percent (100%) of the Bondholders. Publication through the Electronic Municipal Market Access System ("EMMA") or such other nationally recognized municipal securities information repository shall constitute acceptable notice.

DESCRIPTION OF THE 2017 BONDS

General

The 2017 Bonds will be dated, will bear interest at the rates and will mature on the dates (subject to prior redemption) as shown on the inside cover pages of this Official Statement. The 2017 Bonds are secured as described herein under "SECURITY FOR THE AIRPORT REVENUE BONDS." The 2017 Bonds have been issued in fully-registered form, registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC").

Interest on the 2017 Bonds is payable semiannually on each January 1 and July 1, beginning on July 1, 2018 (the "Interest Payment Dates"). Interest is payable on such Interest Payment Dates by check or draft mailed by the Fiscal Agent to the registered owners of the 2017 Bonds as of the close of business on the first day of the month containing each such Interest Payment Date (the "Record Date") until maturity or prior redemption. Any person who is the registered owner of at least $1,000,000 principal amount of 2017 Bonds may, by written request to the Fiscal Agent, at least three days before the Record Date in connection with which such request is made, request that interest be paid by wire transfer to an account at a financial institution in the United States as may be specified in such written request. The principal or redemption price of the 2017 Bonds is payable at the principal Philadelphia corporate trust office of the Fiscal Agent upon surrender of the 2017 Bonds.

Book-Entry Only System

DTC will act as securities depository for the 2017 Bonds. The 2017 Bonds will be initially issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of

DTC. One fully-registered Bond certificate will be issued for each maturity of each series of the 2017 Bonds, each in the aggregate principal amount thereof, and will be deposited with DTC.

When the book-entry system is in effect, payments relating to, and transfers of, Beneficial Owner's interests in the 2017 Bonds will be accomplished by book entries made by DTC and, in turn, by DTC Participants who act on behalf of the Beneficial Owners. See APPENDIX VIII – "BOOK-ENTRY ONLY SYSTEM."

Optional Redemption of the 2017 Bonds

The 2017A Bonds maturing on and after July 1, 2028, are subject to redemption prior to maturity in whole at any time or in part from time to time (and if in part, in such order of maturity as the City may direct and within a maturity by lot) on and after July 1, 2027, at the redemption price of 100% of the principal amount thereof, together with accrued interest to the date fixed for redemption.

The 2017B Bonds maturing on and after July 1, 2028, are subject to redemption prior to maturity in whole at any time or in part from time to time (and if in part, in such order of maturity as the City may direct and within a maturity by lot) on and after July 1, 2027, at the redemption price of 100% of the principal amount thereof, together with accrued interest to the date fixed for redemption.

Mandatory Redemption

The 2017A Bonds maturing on July 1, 2042, are subject to mandatory redemption prior to maturity, in part, as drawn by lot by the Fiscal Agent by application of moneys required to be deposited for that purpose in the Sinking Fund at a redemption price equal to 100% of the principal amount of each such 2017A Bond to be redeemed, together with accrued interest to the date of redemption in accordance with the Act and the General Ordinance on the dates and in the principal amounts as set forth below:

Sinking Fund Payment Date July 1	Sinking Fund Payment
2038	$2,890,000
2039	3,035,000
2040	3,185,000
2041	3,345,000
2042†	3,510,000

†Stated Maturity.

The 2017A Bonds maturing on July 1, 2047, are subject to mandatory redemption prior to maturity, in part, as drawn by lot by the Fiscal Agent by application of moneys required to be deposited for that purpose in the Sinking Fund at a redemption price equal to 100% of the principal amount of each such 2017A Bond to be redeemed, together with accrued interest to the date of redemption in accordance with the Act and the General Ordinance on the dates and in the principal amounts as set forth below:

Sinking Fund Payment Date July 1	Sinking Fund Payment
2043	$4,535,000
2044	4,765,000
2045	5,000,000
2046	5,255,000
2047†	5,515,000

†Stated Maturity.

The 2017B Bonds maturing on July 1, 2042, are subject to mandatory redemption prior to maturity, in part, as drawn by lot by the Fiscal Agent by application of moneys required to be deposited for that purpose in the Sinking Fund at a redemption price equal to 100% of the principal amount of each such 2017B Bond to be redeemed, together with accrued interest to the date of redemption in accordance with the Act and the General Ordinance on the dates and in the principal amounts as set forth below:

Sinking Fund Payment Date July 1	Sinking Fund Payment
2038	$15,415,000
2039	16,185,000
2040	16,995,000
2041	17,840,000
2042†	18,735,000

†Stated Maturity.

The 2017B Bonds maturing on July 1, 2047, are subject to mandatory redemption prior to maturity, in part, as drawn by lot by the Fiscal Agent by application of moneys required to be deposited for that purpose in the Sinking Fund at a redemption price equal to 100% of the principal amount of each such 2017B Bond to be redeemed, together with accrued interest to the date of redemption in accordance with the Act and the General Ordinance on the dates and in the principal amounts as set forth below:

Sinking Fund Payment Date July 1	Sinking Fund Payment
2043	$24,215,000
2044	25,425,000
2045	26,695,000
2046	28,030,000
2047†	29,435,000

†Stated Maturity.

Notice of Redemption

As provided more fully in the General Ordinance and in the forms of the 2017 Bonds, notice of redemption of such 2017 Bonds shall be given by the Fiscal Agent by mailing a copy of the redemption notice by first class mail, postage prepaid, to each Holder of 2017 Bonds to be redeemed at such Holder's registered address as it appears in the Bond Register, not less than 30 or more than 60 days prior to the redemption date. Each notice shall be given in the name of the City and shall contain the CUSIP number, and, in the case of partial redemption of any 2017 Bonds, the certificate numbers and the respective principal amounts of the 2017 Bonds to be redeemed, the publication date, the redemption date, the redemption price and the name and address of the redemption agent, and shall further identify the 2017 Bonds by date of issue, interest rate and maturity date. Failure to mail any notice or any defect in a mailed notice or in the mailing thereof in respect of any notice shall not affect the validity of the redemption proceedings.

If at the time of mailing notice of redemption, the City shall not have deposited with the Fiscal Agent moneys sufficient to redeem the 2017 Bonds called for redemption, such notice may state that it is conditional in that it is subject to the deposit of the redemption moneys with the Fiscal Agent not later than the redemption date, and such notice shall be of no effect unless such moneys are so deposited. Notice having been given, irrevocable instructions having been delivered to the Fiscal Agent to pay the refunded 2017 Bonds or portions thereof and funds having been deposited in the Sinking Fund in accordance with the requirements of the General Ordinance, all interest on the 2017 Bonds called for redemption shall cease to accrue from the date fixed for redemption.

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ESTIMATED SOURCES AND USES OF FUNDS

Estimated Sources of Funds

	2017A Bonds	2017B Bonds	Total
Principal Amount of the 2017 Bonds	$138,630,000	$553,900,000	$692,530,000
Net Original Issue Premium	18,820,560	84,122,115	102,942,675
Total Sources of Funds	$157,450,560	$638,022,115	$795,472,675

Estimated Uses of Funds

	2017A Bonds	2017B Bonds	Total
Deposit to the 2017 Project Construction Fund	$28,939,520	$305,122,480	$334,062,000
Commercial Paper Refunding	50,147,014	75,790,986	125,938,000
Refunding Deposit	62,133,118	164,518,931	226,652,049
Capitalized Interest Deposit	2,091,639	36,445,143	38,536,782
Deposit to Parity Sinking Fund Reserve Account	13,181,052	52,665,258	65,846,310
Costs of Issuance*	958,217	3,479,317	4,437,534
Total Uses of Funds	$157,450,560	$638,022,115	$795,472,675

*Includes underwriters' discount, municipal bond insurance premium, printing costs, rating agency fees, legal fees and other expenses.

SECURITY FOR THE AIRPORT REVENUE BONDS

Pledge of Project Revenues and Funds

Pursuant to the General Ordinance, the City has covenanted that the 2017 Bonds, together with all other parity Airport Revenue Bonds issued under and outstanding or subject to the General Ordinance, are and will be equally and ratably secured by a lien on and security interest in (i) Project Revenues (as defined below); (ii) amounts payable to the City under a Qualified Swap; (iii) all amounts on deposit in or credited to the Aviation Funds (including the Parity Sinking Fund Reserve Account), except for amounts deposited into any Non-Parity Sinking Fund Reserve Subaccount; and (iv) proceeds of the foregoing (the amounts described in subsections (i) through (iv) are sometimes herein referred to, collectively, as the "Pledged Amounts"). See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS — The Amended and Restated General Airport Revenue Bond Ordinance — Summary of Operative Provisions of the General Ordinance Pledge of Revenues; Grant of Security Interest; Limitation on Recourse."

The Sixteenth Supplemental Ordinance provides for certain amendments to the General Ordinance, some of which amendments became effective upon enactment without the consent of any Bondholders and others of which will become effective upon the consent of the applicable percentages of Bondholders, as described herein under "AMENDMENTS TO THE GENERAL ORDINANCE".

To the extent that the Fiscal Agent maintains such Pledged Amounts, the Fiscal Agent shall hold and apply the Pledged Amounts in trust, for the equal and ratable benefit and security of all Holders of parity Airport Revenue Bonds issued under or subject to the General Ordinance. The General Ordinance provides that such Pledged Amounts may also be pledged for the benefit of a letter of credit issuer, municipal bond insurance provider, standby purchaser, swap provider or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any series of Airport Revenue Bonds on an equal and ratable basis with Airport Revenue Bonds.

THE 2017 BONDS ARE LIMITED OBLIGATIONS OF THE CITY PAYABLE SOLELY FROM THE PLEDGED AMOUNTS. THE 2017 BONDS ARE NOT SECURED BY A PLEDGE OF THE FULL FAITH, CREDIT OR TAXING POWER OF THE CITY. THE 2017 BONDS DO NOT CREATE ANY DEBT OR CHARGE AGAINST THE TAX OR GENERAL REVENUES OF THE CITY, OR CREATE A LIEN AGAINST ANY PROPERTY OF THE CITY OTHER THAN THE PLEDGED AMOUNTS.

Definition of Project Revenues

The General Ordinance defines Project Revenues to include all of the revenues, rents, rates, tolls or other charges imposed upon all lessees, occupants and users of the Airport System and all moneys received by or on behalf of the City from all sources during any fiscal year (except as hereinafter excluded) from or in connection with the ownership, operation, improvements and enlargements of the Airport System, or any part thereof and the use thereof including, without limitation, revenues pledged or appropriated for the benefit of the Airport System, all rentals, rates, charges, landing fees, use charges, concession revenues, income derived from the City's sale of services, fuel, oil, and other supplies or commodities and all other charges received by the City or accrued by it from the Airport System, and any investment income realized from the investment of the foregoing, except as provided below, and all accounts, contract rights and general intangibles representing the Project Revenues, all consistently determined in accordance with the accrual basis of accounting adjusted to meet particular requirements of the Airline Agreements (if any of the Airline Agreements are in effect) and the General Ordinance.

Project Revenues as defined in the preceding paragraph shall not include the following:

(a) (i) any and all Passenger Facility Charges, or any taxes which the City may from time to time impose upon users of the Airport System, and

(ii) Designated PFC Revenues for Debt Service,

(b) any governmental grants and contributions in aid of capital projects,

(c) such rentals as may be received pursuant to Special Facility Agreements for Special Purpose Facilities,

(d) unless pledged pursuant to a Supplemental Ordinance pursuant to Section 4.02 of the General Ordinance, Customer Facility Charges,

(e) proceeds of the sale of Airport Revenue Bonds and any income realized from the investment of proceeds of the sale of Airport Revenue Bonds maintained in the Aviation Capital Fund and income realized from investments of amounts maintained in the Renewal Fund and Sinking Fund Reserve Account,

(f) except as required by applicable laws, rules or regulations, net proceeds from the sale of Airport assets, including the sale or transfer of all or substantially all of the assets of the Airport System under Section 9.01 of the General Ordinance unless the Division of Aviation determines to include any such net proceeds as Project Revenues and such determination is evidenced by written notification by the City to the Fiscal Agent,

(g) proceeds of insurance or eminent domain (other than proceeds that provide for lost revenue due to business interruption or business loss), and

(h) net amounts payable to the City under a Qualified Swap (other than termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap).

As described under "AMENDMENTS TO THE GENERAL ORDINANCE", upon the written consent of 100% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of the Airport Revenue Bonds Outstanding, the Sixteenth Supplemental Ordinance adds a definition of "Released Revenues" to the General Ordinance and excludes "Released Revenues" from the definition of "Project Revenues" in the General Ordinance to permit the City to release certain revenues from the pledge of the General Ordinance in favor of the Bondholders upon (a) satisfaction of certain historical and projected debt service coverage tests, (b) delivery of an opinion of bond counsel to the effect that the tax-exempt status of the Airport Revenue Bonds is not adversely affected, and (c) ratings confirmation.

City May Pledge Passenger Facility Charges

Under federal law, the City is permitted under certain circumstances to pledge Passenger Facility Charges ("PFCs") to the payment of debt service on bonds. However, the pledge of PFCs is limited to the allowable costs of approved PFC projects ("PFC-Eligible" projects) and may not be used to pay debt service on any bonds issued to finance projects that are not PFC-Eligible projects.

Pursuant to the Sixteenth Supplemental Ordinance, a new section was added to the General Ordinance that permits the City to designate any available PFCs as Designated PFC Revenues for Debt Service and make available such Designated PFC Revenues for Debt Service to the payment of debt service on designated Airport Revenue Bonds, in the amount and for the period of time designated by the City, subject to any applicable prior liens and pledges. Designated PFC Revenues for Debt Service are not Project Revenues. See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS" herein. See also "CAPITAL DEVELOPMENT PROJECTS AT THE AIRPORT — Funding Sources for Airport System Capital Projects — Passenger Facility Charges" for additional information concerning the impact of federal law on the City's ability to collect and pledge PFCs, and "CERTAIN INVESTMENT CONSIDERATIONS – Passenger Facility Charges."

The City was permitted to, and did, pledge PFCs to secure payment of the PFC-Pledge Bonds (i.e., those Airport Revenue Bonds additionally secured by PFCs) listed below under "FINANCIAL FACTORS – Outstanding and Additional Indebtedness", currently the 2010D and 2011A Bonds.

As provided in the Fifteenth Supplemental Ordinance and the Bond Committee Determination, the City may in the future pledge PFCs, to the extent annually available to the City, to pay debt service on all or a portion of the 2017 Bonds. Prior to pledging such PFCs to pay any debt service on the 2017 Bonds the following is required: (1) written Rating Agenc(ies) confirmation in accordance with the requirements of Section 4.02 of the General Ordinance, and; (2) a certificate of the Director of Finance filed with the Fiscal Agent that includes (a) a description of the allocation of such PFCs with respect to such debt service payments of the 2017 Bonds (the "2017 PFC-Pledge Bonds") and (b) a representation by the City that the 2017 PFC-Pledge Bonds constitute bonds issued for PFC-Eligible Projects (the "2017 PFC-Pledge Certificate"). Any 2017 PFC-Pledge Certificate shall be filed through EMMA or such other nationally recognized municipal securities information repository.

The 2010D and 2011A Bonds are secured on an equal and ratable basis, without preference or priority, by a first lien on the PFCs. Any 2017 PFC-Pledge Bonds will also be secured on an equal and ratable basis with the 2010D Bonds and the 2011A Bonds, without preference or priority, by a first lien on the PFCs. The City may issue Airport Revenue Bonds or other obligations that are secured by PFCs on a parity with the 2010D Bonds and the 2011A Bonds, subject to the terms and conditions of a Supplemental Ordinance.

PFC-Pledge Bonds and any future Airport Revenue Bonds that are issued for PFC-Eligible projects (to the extent the City pledges PFCs for Debt Service pursuant to a Supplemental Ordinance) share a first priority parity lien with respect to all pledged PFCs up to an amount in any year equal to the PFCs pledged for such PFC-Eligible projects.

Designated PFC Revenues for Debt Service are not currently designated for all or a portion of the 2017 Bonds, however the City may in the future designate available PFCs as Designated PFC Revenues for Debt Service for some or all of the 2017 Bonds pursuant to the requirements of the Sixteenth Supplemental Ordinance.

Flow of Funds and Application of Project Revenues

The following is a diagram showing the flow of funds under the General Ordinance. A more complete description of the flow of funds follows the diagram.

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Flow of Funds

Transfer of Aviation Operating Fund to Other Funds and Accounts

NOTES:

+ Includes pledged PFC Revenues; grants-in-aid for capital projects deposited into the Sinking Fund; and portions of the Aviation Operating Fund related to the Bond Improvement and Redemption Account, the O&M Account, and the Discretionary Account, created under the Airline Agreement.

++ Amounts payable to a Qualified Swap Provider due as a result of the termination of a Qualified Swap and termination amounts payable to JP Morgan Chase Bank- New York, if any, with respect to Payments Upon Early Termination on the Interest Rate Swap Transaction effective June 15, 2005.

SOURCE: General Ordinance, as defined herein.

PREPARED BY: AVK Consulting, Inc. November 2017.

The priority and application of Project Revenues under the terms of the General Ordinance and other amounts received which relate to the Airport System into the Aviation Funds are set forth below:

Under the provisions of the General Ordinance, the City is required to deposit all Project Revenues and other amounts received which relate to the Airport System into the Aviation Funds. The Aviation Funds are to be held separate and apart from all other funds and accounts of the City and the Fiscal Agent and the funds and accounts therein shall not be commingled with or loaned or transferred among themselves or to any other funds or accounts of the City (except for transfers between City funds which are expressly permitted by the General Ordinance). Amounts on deposit in the Aviation Operating Fund shall be applied by the City or the Fiscal Agent, as the case may be, in the following order of priority:

(a) To pay such sums constituting Net Operating Expenses in a timely manner.

(b) For deposit in the appropriate accounts of the Sinking Fund, the amount necessary to provide for the timely payment of the Debt Service Requirements.

(c) For deposit in the Sinking Fund Reserve Account or the appropriate subaccount thereof, the amount, if any, required to eliminate any deficiencies therein; provided, however, in the event there are insufficient amounts available to replenish all of the accounts or subaccounts within the Sinking Fund Reserve Account, the amount to be deposited in each Sinking Fund Reserve Account or subaccount shall be determined by dividing the Sinking Fund Reserve Requirement on the Outstanding Bonds secured thereby by the sum of the Sinking Fund Reserve Requirements on all Bonds Outstanding under the General Ordinance and multiplying that result by the total amount available to be deposited under this clause (c).

(d) For deposit in the Renewal Fund the amount, if any, required to eliminate any deficiency therein, and to pay amounts due and payable under Exchange Agreements.

(e) To pay termination amounts to a Qualified Swap Provider due as a result of the termination of a Qualified Swap and termination amounts, if any, payable to JP Morgan Chase Bank — New York with respect to Payments upon Early Termination on the Interest Rate Swap Transaction effective June 15, 2005.

(f) For deposit in the Subordinate Obligation Fund (i) the amount necessary to provide for the timely payment of the principal or redemption price of and interest on Subordinate Obligations, (ii) on or before the dates that other payments are due under any credit facility, liquidity facility or swap agreement constituting Subordinate Obligations, to deposit the amount necessary to make such payments, (iii) forward to the paying agent in respect of bond anticipation notes (payable by exchange for, or out of the proceeds of the sale of Subordinate Obligations) the amount necessary to provide for the timely payment of interest thereon (to the extent not capitalized), and (iv) deposit in the applicable subaccount of the Sinking Fund Reserve Account for a series of Subordinate Obligations the amounts, if any, required to eliminate any deficiency in such account.

(g) To pay to the City the amount necessary to provide for the timely payment of the principal or redemption price of and interest on General Obligation Bonds.*

(h) To pay any Interdepartmental Charges.

(i) To pay to the City the amount necessary to provide for the timely payment of the principal or redemption price of and interest on NSS (non-self-sustaining) General Obligation Bonds.*

Any amounts remaining in the Aviation Operating Fund following any transfer then required to be made pursuant to subparagraphs (a)-(i) above, may be used at the written direction of the City for any Airport System purposes. In the Airline Agreement, the City has provided its written direction to use such remaining amounts as provided in subparagraphs (j)-(m) below.

So long as any 2017 Bonds or bonds are outstanding, the deposit and application of Project Revenues for each fiscal year during the term of the Airline Agreement shall be governed by the General Ordinance. The City is expressly permitted in the General Ordinance to use amounts remaining in the Aviation Operating Fund following any transfers pursuant to subparagraphs (a)-(i) above for the Bond Redemption and Improvement Requirement, the O&M Requirement, the Airline Revenue Allocation and City Revenue Allocation (as defined in the Airline Agreement). Pursuant to Section 4.06 of the General Ordinance, any amounts remaining in the Aviation Operating Fund following any transfer then required to be made pursuant to subparagraphs (a)-(i) above may be used for any Airport System purposes at the written direction of the City. The City has directed that such amounts remaining will be applied or credited in the following manner:

(j) Bond Redemption and Improvement Account. In accordance with the provisions of the General Ordinance and the Airline Agreement, amounts on deposit in the Bond Redemption and Improvement Account are available for use by the City for the payment of deficiencies with respect to the Debt Service Requirements and the Sinking Fund Reserve Requirement, as provided under the General Ordinance. If (i) no such deficiencies exist, (ii) the City is not in default under the General Ordinance and (iii) a Majority-in Interest of the Eligible Signatory Airlines, determined pursuant to the Airfield Area MII Formula, mutually agree (whose agreement will not be unreasonably withheld), then the Division of Aviation may use such amounts for: repair, renewals, replacements or alterations to the Airport System, redemption of Bonds, costs of Capital Projects or equipment, purchase of Bonds, arbitrage rebate pursuant to Section 148(f) of the Code or for any lawful Airport System purposes.

In accordance with the provisions of the General Ordinance and the Airline Agreement, the balance of moneys on deposit in the Bond Redemption and Improvement Account shall equal the "Bond Redemption and Improvement Requirement." The Bond Redemption and Improvement Requirement shall mean an amount not to exceed the lesser of (1) the amount of Debt Service Reserve Surety Bonds fulfilling the City's Sinking Fund Reserve requirements, or (2) twenty-five percent (25%) of the Debt Service Requirement. At the termination of the

* No such general obligation debt of the City is currently outstanding.

Airline Agreement, it is the City's intention to retain the balance in the Bond Redemption and Improvement Account in an Airport related account with substantially the same purpose.

(k) O&M Account. The O&M Account is available for use by the City for the payment of Operating Expenses in the City's sole discretion in the event the then current Airport Revenues allocated to Operating Expenses in the Annual Budget are deemed to be insufficient.

(l) Airline Revenue Allocation. For each fiscal year during the term of the Airline Agreement, the Airline Revenue Allocation shall be equal to fifty percent (50%) of the prior fiscal year's total net revenue from the Outside Terminal Areas Cost Center reduced by an amount of up to $7,000,000, to the extent net revenue from the Outside Terminal Areas Cost Center equals or exceeds $7,000,000.

(m) Discretionary Account. Following any and all transfers required by subparagraphs (a)-(l) above, any amounts remaining in the Aviation Operating Fund, less the Airline Revenue Allocation shall be deposited in the Discretionary Account to be used at the written direction of the City for any Airport System purposes.

Application of PFCs

The PFCs shall be deposited, upon receipt, in the Aviation Capital Fund; the amount of the PFCs pledged to the PFC-Pledge Bonds shall be transferred therefrom, at least semiannually, and deposited in the Sinking Fund for PFC-Pledge Bonds; such PFC's deposited into the Sinking Fund for the PFC-Pledge Bonds are on parity with the PFC's deposited into the Sinking Fund for the other PFC-Pledge Bonds.

Sinking Fund Reserve Account

Under the General Ordinance, the City is required to maintain a parity Sinking Fund Reserve Account within the Sinking Fund known as the Parity Sinking Fund Reserve Account. The City is required to maintain an aggregate balance in the Parity Sinking Fund Reserve Account for all Airport Revenue Bonds which are to be secured by the Parity Sinking Fund Reserve Account, equal to the lesser of (a) the greatest amount of Debt Service Requirements on Airport Revenue Bonds payable in any one fiscal year, determined as of any particular date, or (b) the maximum amount permitted by the Internal Revenue Code of 1986, as amended (the "Code"), to be maintained without yield restriction for bonds the interest on which is not includable in gross income for Federal income tax purposes; provided, however, that additional Airport Revenue Bonds may be secured by a Non-Parity Sinking Fund Reserve Account under certain circumstances. See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS — The Amended and Restated General Airport Revenue Bond Ordinance — Summary of Operative Provisions of the General Ordinance — Establishment of Funds and Accounts."

As described above under "AMENDMENTS TO THE GENERAL ORDINANCE", the City has amended the definition of "Sinking Fund Reserve Requirement", which amendment will become effective upon the receipt of consent of 100% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of the holders of Airport Revenue Bonds Outstanding, to be equal to the least of (a) 10% of principal amount (or proceeds in the case of discount bonds),

(b) maximum annual debt service and (c) 125% of average annual debt service. See APPENDIX IV – "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS".

In the event that the moneys in the Debt Service Account of the Sinking Fund are insufficient to pay as and when due, the principal of (and premium, if any) or interest on any Airport Revenue Bonds or other obligations payable from the Debt Service Account then due (including any amounts payable out of the Sinking Fund under Swap Agreements), the Fiscal Agent is authorized and directed (i) with respect to Airport Revenue Bonds secured by the Parity Sinking Fund Reserve Account, to withdraw an amount equal to the deficiency from the Parity Sinking Fund Reserve Account, and use such amount to pay debt service on the Airport Revenue Bonds secured thereby, and (ii) with respect to Airport Revenue Bonds secured by a Non-Parity Sinking Fund Reserve Subaccount, to withdraw an amount equal to the deficiency from such Non-Parity Sinking Fund Reserve Subaccount and use such amount to pay debt service on the Airport Revenue Bonds secured thereby. If by reason of such withdrawal or for any other reason there is a deficiency in the Sinking Fund Reserve Account or any subaccount thereof, the City has covenanted to restore such deficiency promptly from Project Revenues, in no event later than the next interest payment date for Airport Revenue Bonds outstanding under the General Ordinance.

Any moneys in the Sinking Fund Reserve Account or any subaccount thereof in excess of the applicable Sinking Fund Reserve Requirement shall be transferred on an annual basis to the Debt Service Account of the Sinking Fund at the written direction of the City.

Under the General Ordinance, in lieu of the required deposits into the Sinking Fund Reserve Account, the City may cause to be deposited in such Account an unconditional and irrevocable surety bond, an insurance policy or an irrevocable letter of credit in the required amount ("Sinking Fund Reserve Facilities"); provided that such surety bond, insurance policy or irrevocable letter of credit, or the issuer thereof (as applicable), at least meets the credit ratings threshold prescribed in the General Ordinance.

As described above under "AMENDMENTS TO THE GENERAL ORDINANCE", the City has amended the credit ratings threshold applicable to Sinking Fund Reserve Facilities by lowering the rating requirement from "the second highest rating category" to the "A" category, which amendment will become effective upon the receipt of consent of 67% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of the holders of the Airport Revenue Bonds Outstanding. See APPENDIX IV – "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS".

As of September 1, 2017, the Parity Sinking Fund Reserve Requirement was $119,436,019, of which $76,778,795 was funded with cash or cash equivalents and $42,657,224 with Sinking Fund Reserve Facilities. A portion of the proceeds of the 2017 Bonds in the amount of $65,846,310.36 will be deposited in the Parity Sinking Fund Reserve Account and the Sinking Fund Reserve Facilities will be released. Upon issuance and delivery of the 2017 Bonds, the Parity Sinking Fund Reserve Requirement will be $138,461,754, all of which will be funded with cash or cash equivalents.

Renewal Fund

The General Ordinance establishes a renewal fund (the "Renewal Fund") in the amount of $2,500,000 (the "Renewal Fund Requirement"). The amount required to be maintained in the Renewal Fund may be increased or decreased from time to time as determined by the Consultants. The Renewal Fund is maintained by the Fiscal Agent and, under the General Ordinance, may be used (i) to pay the cost of major repairs, renewals and replacements of Airport System facilities for purposes of meeting unforeseen contingencies and emergencies arising from the operation of the Airport System, (ii) to pay expenses chargeable as Operating Expenses if Project Revenues are insufficient, for whatever reason, to cover such Operating Expenses in any fiscal year, (iii) to pay debt service on Airport Revenue Bonds, or (iv) to repay any loan from the Aviation Capital Fund to the Aviation Operating Fund, in accordance with the requirements of the General Ordinance. If the amount in the Renewal Fund drops below the Renewal Fund Requirement, such deficiency must be restored by regular quarterly deposits from Project Revenues which shall not be required to exceed the total of $500,000 in any fiscal year. If the moneys and investments in the Renewal Fund are in excess of the Renewal Fund Requirement, the amount of such excess, on order of the Director of Finance, shall be paid over by the City to the Debt Service Account of the Sinking Fund, to be used and applied as are all other moneys deposited in or on deposit therein.

Rate Covenant

The City covenants with the holders of the 2017 Bonds, that it will, at a minimum, impose, charges and recognize as revenues in each fiscal year such rentals, charges and fees as shall, together with that portion of the Aviation Operating Fund balance attributable to Amounts Available for Debt Service and carried forward at the beginning of such fiscal year and together with all other Amounts Available for Debt Service to be received in such fiscal year, equal not less than the greater of:

(a) the sum of: (i) all Net Operating Expenses payable during such fiscal year; (ii) 150% of the amount required to pay the Debt Service Requirements during such fiscal year; (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such fiscal year; and (iv) the amount, if any, required to be paid into the Renewal Fund during such fiscal year; or

(b) the sum of: (i) all Operating Expenses payable during such fiscal year; and; (ii) (A) all Debt Service Requirements during such fiscal year; (B) all debt service requirements during such fiscal year in respect of all outstanding General Obligation Bonds issued for improvements to the Airport System and all outstanding NSS General Obligation Bonds issued for improvements to the Airport System; (C) all the debt service requirements during such fiscal year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service; (D) amounts required to repay loans among the funds made pursuant to Section 4.05(c) of the General Ordinance; (E) the amount, if any, required to be paid into the Sinking Fund Reserve Account or Renewal Fund during such fiscal year; and (F) all amounts required to be paid under Exchange Agreements.

As described above under "AMENDMENTS TO THE GENERAL ORDINANCE", the City has amended the manner of computing debt service on Balloon Bonds for purposes of calculating "Debt Service Requirements" by assuming a no more than 30-year amortization based upon *The Bond Buyer* 25 Revenue Bond Index or successor index, which amendment will become effective upon the receipt of the consent of 67% in principal amount, or Original Value in the case of Capital Appreciation Bonds, of the holders of the Airport Revenue Bonds Outstanding. See APPENDIX IV – "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS".

For a further discussion of the funds and accounts, priority of payment, the Rate Covenant, the Alternative Rate Covenant which may be elected by the City, and other provisions of the General Ordinance, see APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS —The Amended and Restated General Airport Revenue Bond Ordinance."

Certain Provisions of General Ordinance Effective Upon City Election and Certain Consents

The City may elect an alternative rate covenant in lieu of the Rate Covenant (the "Alternative Rate Covenant"), upon the conveyance of all or substantially all of the City's right, title and interest in the Airport System, the occurrence of certain other circumstances and the consent of certain parties, all as set forth in the General Ordinance. As of the date hereof, the City has no plans to elect the Alternative Rate Covenant, however, the City may elect the Alternative Rate Covenant in the future. For additional information about the City's election and calculation of the Alternative Rate Covenant, see APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS — The Amended and Restated General Airport Revenue Bond Ordinance — Conveyance of System and Assignment, Assumption and Release of Obligations — *Alternative Rate Covenant*."

Issuance of Additional Airport Revenue Bonds

The General Ordinance permits the issuance of Additional Bonds which, except as otherwise provided in the General Ordinance, will be equally and ratably secured with the 2017 Bonds and all other outstanding parity bonds issued under and/or subject to the General Ordinance. Additional Bonds may be issued under the General Ordinance to pay the costs of Projects relating to the Airport System, to reimburse the City for the prior payment of such costs, to fund any such costs for which the City shall have outstanding obligations, to refund bonds of the City previously issued for such purposes or to finance other costs relating to the Airport System permitted under the Act; provided that, among other requirements, in each case other than certain refundings of bonds, the City obtains reports of the Consultants stating, among other things, that (i) for either the immediately preceding fiscal year of the City, or any period of 12 full consecutive months during the 18-month period preceding the delivery of the Consultants' reports, the Airport System yielded pledged Amounts Available for Debt Service, sufficient to satisfy the Rate Covenant, (ii) the Airport System will, in the opinion of the Consultant, yield pledged Amounts Available for Debt Service for each of the five fiscal years (or three fiscal years in the event that the Consultant is professionally unable to provide an opinion for a period in excess of three fiscal years) ended immediately following the issuance of the 2017 Bonds, sufficient to comply with the Rate Covenant, and (iii) a statement that the Airport System is in good operating condition or that adequate steps are being taken to return the Airport System to good operating condition. For a discussion of the issuance and assumption of additional Bonds under the General Ordinance, see APPENDIX IV – "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS – The Amended and Restated General Airport Revenue Bond Ordinance – Summary of Operative Provisions of the General Ordinance – Conditions of and Provisions Relating to Issuing Bonds."

Authorization for Possible Transfer of Airport System

The General Ordinance provides that, under certain circumstances, the City has the ability to transfer the Airport System to a municipal authority created pursuant to the Municipality Authorities Act, P.L. 382, No. 164 (May 2, 1945), as amended, or to an authority created pursuant to other authorizing legislation or to another entity which will assume all of the obligations evidenced by the bonds outstanding under the Ordinances, including the 2017 Bonds. See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS — The Amended and Restated General Airport Revenue Bond Ordinance — Summary of Operative Provisions of the General Ordinance — Conveyance of System and Assignment, Assumption and Release of Obligations" for a summary of the conditions which must be satisfied prior to any such transfer. The City has no plans to transfer the Airport System to a municipal authority at this time.

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BOND INSURANCE

Bond Insurance Policy

Concurrently with the issuance of the 2017 Bonds, Assured Guaranty Municipal Corp. (“AGM”) will issue its Municipal Bond Insurance Policy (the “Policy”) for the 2017A Bonds maturing July 1, 2034 through and including July 1, 2037 and the 2017B Bonds maturing July 1, 2036 (the “Insured Bonds”). The Policy guarantees the scheduled payment of principal of and interest on the Insured Bonds when due as set forth in the form of the Policy included as APPENDIX IX to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

Assured Guaranty Municipal Corp.

AGM is a New York domiciled financial guaranty insurance company and an indirect subsidiary of Assured Guaranty Ltd. (“AGL”), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol “AGO”. AGL, through its operating subsidiaries, provides credit enhancement products to the U.S. and global public finance, infrastructure and structured finance markets. Neither AGL nor any of its shareholders or affiliates, other than AGM, is obligated to pay any debts of AGM or any claims under any insurance policy issued by AGM.

AGM’s financial strength is rated “AA” (stable outlook) by S&P Global Ratings, a business unit of Standard & Poor’s Financial Services LLC (“S&P”), “AA+” (stable outlook) by Kroll Bond Rating Agency, Inc. (“KBRA”) and “A2” (stable outlook) by Moody’s Investors Service, Inc. (“Moody’s”). Each rating of AGM should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of AGM in its sole discretion. In addition, the rating agencies may at any time change AGM’s long-term rating outlooks or place such ratings on a watch list for possible downgrade in the near term. Any downward revision or withdrawal of any of the above ratings, the assignment of a negative outlook to such ratings or the placement of such ratings on a negative watch list may have an adverse effect on the market price of any security guaranteed by AGM. AGM only guarantees scheduled principal and scheduled interest payments payable by the issuer of bonds insured by AGM on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the relevant insurance policy), and does not guarantee the market price or liquidity of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

Current Financial Strength Ratings

On June 26, 2017, S&P issued a research update report in which it affirmed AGM’s financial strength rating of “AA” (stable outlook). AGM can give no assurance as to any further ratings action that S&P may take.

On December 14, 2016, KBRA issued a financial guaranty surveillance report in which it affirmed AGM’s insurance financial strength rating of “AA+” (stable outlook). AGM can give no assurance as to any further ratings action that KBRA may take.

On August 8, 2016, Moody’s published a credit opinion affirming its existing insurance financial strength rating of “A2” (stable outlook) on AGM. AGM can give no assurance as to any further ratings action that Moody’s may take.

For more information regarding AGM's financial strength ratings and the risks relating thereto, see AGL's Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

Capitalization of AGM

At September 30, 2017:

- The policyholders' surplus of AGM was approximately $2,322 million.

- The contingency reserves of AGM and its indirect subsidiary Municipal Assurance Corp. ("MAC") (as described below) were approximately $1,371 million. Such amount includes 100% of AGM's contingency reserve and 60.7% of MAC's contingency reserve.

- The net unearned premium reserves of AGM and its subsidiaries (as described below) were approximately $1,681 million. Such amount includes (i) 100% of the net unearned premium reserves of AGM and AGM's wholly owned subsidiaries Assured Guaranty (Europe) plc, Assured Guaranty (UK) plc, CIFG Europe S.A. and Assured Guaranty (London) plc (together, the "AGM European Subsidiaries") and (ii) 60.7% of the net unearned premium reserve of MAC.

The policyholders' surplus of AGM and the contingency reserves and net unearned premium reserves of AGM and MAC were determined in accordance with statutory accounting principles. The net unearned premium reserves of the AGM European Subsidiaries were determined in accordance with accounting principles generally accepted in the United States of America.

Incorporation of Certain Documents by Reference

Portions of the following documents filed by AGL with the Securities and Exchange Commission (the "SEC") that relate to AGM are incorporated by reference into this Official Statement and shall be deemed to be a part hereof:

(i) the Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (filed by AGL with the SEC on February 24, 2017);

(ii) the Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017 (filed by AGL with the SEC on May 5, 2017);

(iii) the Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017 (filed by AGL with the SEC on August 3, 2017); and

(iv) the Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017 (filed by AGL with the SEC on November 3, 2017).

All consolidated financial statements of AGM and all other information relating to AGM included in, or as exhibits to, documents filed by AGL with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, excluding Current Reports or portions thereof "furnished" under Item 2.02 or Item 7.01 of Form 8-K, after the filing of the last document referred to above and before the termination of the offering of the 2017 Bonds shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the internet at the SEC's website at http://www.sec.gov, at AGL's website at http://www.assuredguaranty.com, or will be provided upon request to Assured Guaranty Municipal Corp.: 1633 Broadway, New York, New York

10019, Attention: Communications Department (telephone (212) 974-0100). Except for the information referred to above, no information available on or through AGL's website shall be deemed to be part of or incorporated in this Official Statement.

Any information regarding AGM included herein under the caption "BOND INSURANCE – Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "AGM Information") shall be modified or superseded to the extent that any subsequently included AGM Information (either directly or through incorporation by reference) modifies or supersedes such previously included AGM Information. Any AGM Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

Miscellaneous Matters

AGM makes no representation regarding the 2017 Bonds or the advisability of investing in the 2017 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE".

SOURCES OF PROJECT REVENUES UNDER THE GENERAL ORDINANCE

Airport-Airline Use and Lease Agreements

From July 1, 2007 through June 30, 2015, the City and the principal airlines serving the Airport operated under the terms of an Airport-Airline Use and Lease Agreement (the "Prior Airline Agreement") that established procedures for the annual review and adjustment of airline rentals, fees, and charges so that the Airport System yielded Amounts Available for Debt Service at least sufficient to comply with the Rate Covenant.

Beginning July 1, 2015, the City and American Airlines have operated under the terms of a new Airport-Airline Use and Lease Agreement (which is referred to herein as the "Airline Agreement") which succeeded the Prior Airline Agreement. The material terms of the Airline Agreement are substantially the same as the material terms of the Prior Airline Agreement. The City has executed the Airline Agreement with the fourteen airlines at the Airport: Air Canada, Alaska Airlines, American Airlines, British Airways, Delta Airlines, FedEx, Frontier Airlines, JetBlue Airways, Lufthansa, Qatar Airways, Southwest Airlines, Spirit Airlines, United Airlines and UPS. The Airline Agreement is scheduled to expire on June 30, 2020, and is thereafter subject to two one-year extension options.

For purposes of developing rentals, fees and charges under the Airline Agreement, the Airport System has been divided into the following cost centers to which all revenues, expenses, and debt service on Airport Revenue Bonds are allocated: Airfield Area, Terminal Area, Ramp Area, Other Buildings and Areas, Northeast Airport and Outside Terminal Area.

The procedures in the Airline Agreement for setting airline rentals, fees and charges are such as to ensure continued compliance with the Rate Covenant.

As more fully described below under "–Non-Signatory Airline Rentals, Fees, and Charges", airlines that do not sign the Airline Agreement are subject to a City regulation that would require them to pay more than the Signatory Airlines. To operate at the Airport, such airlines are required to execute an Operating License Agreement with the City, with most terms and conditions the same as the Airline Agreement, but higher rates and charges.

Certain airlines that supply regional jet service to the Signatory Airlines under the same livery as the Signatory Airline will be asked to execute an Operating License under essentially the same terms and conditions as the Airline Agreement.

Prior to and during the term of the Prior Airline Agreement, the relevant Signatory Airlines approved $1.609 billion in Capital Expenditures. Under the Airline Agreement, the Signatory Airlines approved an additional $766.35 million in Capital Expenditures bringing total approved Capital Expenditures to $2.375 billion, which represents the approved Capital Development Program (CDP) discussed more fully under the heading "CAPITAL DEVELOPMENT PROJECTS AT THE AIRPORT." The Airline Agreement does not limit or restrict the right of the City to implement additional Capital Expenditures within the Airport System at any time; the lack of approval of the Capital Expenditures by a Majority-in-Interest of the Signatory Airlines ("MII Approval") after consultation with the City (other than certain exempted projects that do not require approval) prevents the City from including the cost of such Capital Expenditures in the applicable rate base for the Airline Cost Centers during the term of the Airline Agreement. MII Approval obligates the respective Signatory Airlines to pay rentals, fees, and charges as required by the Airline Agreement to enable the City to comply with the Rate Covenant. The City has obtained MII Approval for the 2017 Capital Project.

A summary of certain provisions of the Airline Agreement are set forth in APPENDIX V — "SUMMARY OF CERTAIN PROVISIONS OF THE AIRLINE AGREEMENT". This summary is in all respects subject to and qualified by the complete, definitive form of the Airline Agreement in its entirety, copies of which are available from the Office of the Director of Finance at the address set forth under the heading "ADDITIONAL INFORMATION" herein.

Non-Signatory Airline Rentals, Fees, and Charges

If any airline enters into the Airline Agreement, then such Signatory Airline shall be governed by the rates and charges and terms and conditions as set forth in the Airline Agreement. Non-signatory Airlines rates and charges to use the Airport System are governed by the Airport Rates and Charges Regulation (the "Airport Rates and Charges Regulation"). The Airport Rates and Charges Regulation became effective August 7, 2017 and supersedes all previous rates and charges regulations.

Pursuant to the Airport Rates and Charges Regulation, Non-Signatory Airlines are required to pay amounts equal to 115% of the calculated Signatory Airline Landing Fee Rate, Terminal Rentals, International Common Use Area Fees, and Domestic Common Use Area Fees.

Certain Other Revenues

Some air carriers operating at the Airport are governed by duly promulgated regulations of the Department of Commerce of the City, rather than pursuant to written agreements. Certain of these carriers are not tenants and, whether scheduled or nonscheduled, their operations at the Airport do not warrant the undertaking of the obligations imposed upon carriers entering into written agreements. Pursuant to the Airline Agreement, rates and charges paid by such carriers may not be substantially less than the rates and charges paid by the Signatory Airlines.

Users of the Airport other than Signatory Airlines and other air carriers include providers of aviation services, such as ground handlers, fixed base operators, fuelers and in-flight kitchen operators. Concessionaires provide services and products to passengers and visitors, and include, among other things, restaurant and fast-food service, newsstands and gift shops, rental cars, taxi and limousine and other forms of ground transportation and on-Airport and off-Airport parking. See "Philadelphia Parking Authority" below. Lease and license agreements with the providers of these products and services provide the Airport with rentals and concession revenues.

All food, beverage and retail concessions in the terminal buildings are managed and operated under the Master Lease and Concession Management Agreement (the "Master Lease") between the City and MarketPlace PHL LLC ("MarketPlace") which was executed in December 2014 and became effective January 2015. The Master Lease provides for MarketPlace to develop and manage Airport terminal concessions showcasing national brands and local Philadelphia products. The Master Lease Agreement has a seven (7) year term scheduled to expire December 31, 2021 with two consecutive renewal terms of three (3) years and two (2) years, respectively.

Rental car companies (a) pay ground rent to the Airport on their facilities, (b) pay the Airport a privilege fee pursuant to City regulation, and (c) collect for payment to the Airport the Customer Facility Charges described below under "CAPITAL DEVELOPMENT PROJECTS AT THE AIRPORT – Funding Sources for Airport System Capital Projects – Customer Facility Charges for Rental Car Facility" pursuant to a Commonwealth law and a City enabling ordinance. Customer Facility Charges are not pledged for the payment of the 2017 Bonds.

In 2016, the Pennsylvania General Assembly temporarily authorized Transportation Network Companies ("TNC") operations in the City via a budget bill. In July of 2016, the Airport negotiated temporary license agreements with two national TNCs which expired on September 30, 2016. In October 2016, the Pennsylvania General Assembly passed a bill that allows the Airport to adopt contracts, licenses, and regulations relating to the duties and responsibilities on Airport property of TNCs, including the imposition of reasonable fees. On December 1, 2016, the Airport negotiated a three-year license agreement with two TNCs. Both the temporary and three-year license agreements provide that the TNCs pay per-trip fees of $3.00 pick-up and $2.60 per drop-off to PHL based on the number of Airport passenger drop offs and pick-ups.

Philadelphia Parking Authority

The Philadelphia Parking Authority ("PPA") was established by an ordinance of the City of Philadelphia in 1950 pursuant to the Pennsylvania Parking Authority Law, P.L. 458, No. 208 (June 5, 1947). Various statutes, ordinances, and contracts authorize PPA to plan, design, acquire, hold, construct, improve, maintain, and operate, own or lease land and facilities for parking in the City, including such facilities at the Airport; and to administer and enforce City on-street parking regulations for the City through an Agreement of Cooperation (the "Agreement of Cooperation") with the City.

The PPA owns and operates five parking garages at the Airport, and it also operates a number of surface parking lots at the Airport. The land on which these garages and surface lots are located is leased from the City, acting through the Department of Commerce, Division of Aviation, pursuant to a lease that extends to December 31, 2030 or such time as all bonds issued under PPA's bond indenture have been retired (the "Ground Lease"). The PPA currently has bonds outstanding until 2030. The Ground Lease provides for payment of rent to the City (the "Rental Payment"), which is equal to gross receipts less operating expenses, debt service on PPA's bonds issued to finance improvements at the Airport and reimbursement to PPA for capital expenditures and prior year operating deficits relating to its Airport operations, if any. The Rental Payments that were transferred from the PPA to the City's Aviation Operating Fund as rent are listed as "Automobile Parking" in Table 10.

PPA's administrative costs are included in its operating expenses. In 1999, at the request of the Federal Aviation Administration ("FAA"), PPA and the City entered into a letter agreement (the "FAA Letter Agreement") which contained a formula for calculating PPA's administrative costs and capped such administrative costs at 28% of PPA's total administrative costs throughout all its revenue centers. (PPA owns and operates parking facilities at a number of non-Airport locations in the City. These parking facilities are revenue centers for purposes of the FAA Letter Agreement.) According to the Division of Aviation, PPA's 2017 audited financial statements of PPA submitted to the City show that PPA has been in compliance with the FAA Letter Agreement since its execution.

The PPA may issue bonds to refinance short-term borrowings and fund capital improvements related to public parking at the Airport in the near future.

THE AIRPORT SYSTEM – MANAGEMENT AND DESCRIPTION

General

The Airport System consists of the Airport and the Northeast Airport, and it is owned by the City and operated by the Division of Aviation. The City is classified as a large air traffic hub by the Federal Aviation Administration (the "FAA"). In calendar year 2016, it was ranked 19th in the United States in terms of total passengers and 18th in terms of total cargo weight handled according to Airports Council International. In the fiscal year ended June 30, 2017, approximately 29.6 million passengers were enplaned and deplaned at the Airport. Origin-destination traffic for fiscal year 2017 accounted for approximately 67.3% of annual passengers, with the remaining 32.7% being passengers connecting between flights.

Management of the Airport System

The Chief Executive Officer of the Division of Aviation, Rochelle L. Cameron, is responsible for the operation of the Airport System. As of June 30, 2017, there were approximately 777 (Division of Aviation employees), 161 (Police Department), 60 (Fire Department), 20 (Law Department, five of which are at the Airport), and 19 (Office of Fleet Management) persons employed by the City.

Airport System operations are conducted under the supervision of the following members of the Division of Aviation Staff:

Rochelle L. Cameron, Chief Executive Officer. Ms. Cameron was appointed Chief Executive Officer ("CEO") of the City's Division of Aviation in January 2016. She has served on the Division's leadership team for the past six years, including as Chief Operating Officer ("COO") and Deputy Director of Aviation, Finance and Administration. As CEO, Ms. Cameron serves as the City's chief representative in local, state, national and international affairs, in marketing the Airport System and improving air service. In this capacity, she is responsible for directing the planning, development and administration of all the activities of the Division of Aviation, including both Philadelphia International Airport and Northeast Airport and the management of about 800 personnel. Before joining the City of Philadelphia, Ms. Cameron had 13 years' experience working for the Metropolitan Washington Airports Authority. Her experience also includes seven years as an active duty officer in the United States Air Force and one year as an Air Force civilian employee. Ms. Cameron holds a Bachelor of Arts degree in Political Science from the University of Notre Dame and a Master's degree in Business Administration from Auburn University at Montgomery. She is a Certified Public Accountant in the Commonwealths of Pennsylvania and Virginia, and an American Association of Airport Executives ("AAAE") Certified Member. Ms. Cameron serves on the Board of Directors for Airports Council International – North America ("ACI-NA"), the Policy Review Committee for AAAE and numerous other local nonprofit boards, including the Philadelphia Convention and Visitors Bureau and Global Philadelphia.

Tracy S. Borda, Chief Financial Officer. Ms. Borda was appointed Chief Financial Officer in January 2016. She is responsible for the Division's financial operations, including accounting, budget, rates and charges, debt management, grant management, capital program funding, audit, procurement, contract management, and materials management. Prior to her current role, Ms. Borda served as Acting Deputy Director of Aviation, Finance and Administration, since March 2015. Ms. Borda joined the Division of Aviation in 1995 as the Internal Audit Manager and has held various positions including Assistant Director of Aviation and Airport Administrative Manager. Ms. Borda holds a Bachelor of Science degree in Finance from the Pennsylvania State University and a Master's degree in Business Administration from Temple University. She is a Certified Public Accountant in the Commonwealth of Pennsylvania, an AAAE Certified Member and a member of AAAE, the Government Financial Officers Association ("GFOA") and the Finance Committee for ACI-NA.

Keith Brune, Chief Operating Officer. Mr. Brune was appointed Chief Operating Officer ("COO") in October 2017. He oversees all day-to-day operations of the Philadelphia International and Northeast Airports including landside and airside operations and security and maintenance of terminals and facilities. Mr. Brune joined the Division of Aviation as an Airport Operations Officer in 1991 and has held various positions including Airport Operations Superintendent, Acting Facilities Maintenance Manager, Airport Operations Manager and Acting Deputy Director, Operations and Facilities. Mr. Brune holds Bachelor of Science and Master of Aeronautical Science degrees from Embry-Riddle Aeronautical University and is an Accredited Airport Executive ("A.A.E."). Additionally, Mr. Brune served ten years with the United States Air Force and is a former adjunct instructor of aviation at Embry-Riddle Aeronautical University and Drexel University. He is a member of the Board of Directors for the Delaware County (PA) Transportation Management Association and the Aviation Council of Pennsylvania.

Folasade A. Olanipekun-Lewis, Chief Administrative Officer. Ms. Olanipekun-Lewis was appointed Chief Administrative Officer ("CAO") for the Division of Aviation in January

2016. She leads the Division's administrative functions, including: Business Diversity, Image, Government Affairs, Marketing and Public Affairs and Strategy and Business Intelligence. Previously, she served as the Chief Financial Officer for the City of Philadelphia's City Council President Darrell L. Clarke, where she provided a variety of financial and professional support to the Council body. Prior to that, Ms. Olanipekun-Lewis served as Deputy Commerce Director for Finance and Administration for the City where she was responsible for managing the department's daily operations. Prior to joining the City of Philadelphia, Ms. Olanipekun-Lewis held the following roles: Chief Financial Officer for the School District of Philadelphia and Director of Finance for the City of Birmingham, Alabama. Ms. Olanipekun-Lewis also served as City Treasurer for the City of Philadelphia and was responsible for managing the issuance of debt instruments for the City and oversaw investments and payments of City funds. Ms. Olanipekun-Lewis obtained an undergraduate degree in Economics from the Graduate Center, City University of New York, CUNY BA Program; a Juris Doctor degree from Temple University Beasley School of Law; and a Master's degree in Government Administration from the University of Pennsylvania, Fels School of Government.

Diego Rincón, Deputy Director of Aviation – Capital Development. Mr. Rincón was appointed Deputy Director of Aviation, Capital Development in July 2013. He is an aviation professional with an international and domestic background in planning, engineering, program management and construction management. His experience includes over 20 years leading and contributing to major airport programs in Washington, D.C., Dallas, Texas, and Mumbai, India and he has supported airport development work in Mexico, Germany, Saudi Arabia, the United Arab Emirates, Honduras, Venezuela, Argentina, Spain, Hungary and India. He has served as a consultant and has held senior executive roles in airport management in both public and private sectors. In addition, he has direct involvement in Capital Development Program with the Airport's tenants and internal departments, ensuring safety and quality. He oversees major construction and engineering projects, introducing new, progressive approaches to engineering management and execution. Mr. Rincon holds a Bachelor of Science in Aviation Management from the Florida Institute of Technology, is a member of AAAE, and an Accredited Airport Executive ("A.A.E."). He is a member of the Standing Committee on Aviation Security and Emergency Management of the Transportation Research Board ("TRB") and co-chair of the Airport Construction and Project Delivery Committee for the ACI-NA.

James Tyrrell, Chief Revenue Officer. Mr. Tyrrell was appointed to the position of Chief Revenue Officer in January 2016 and is directly responsible for airline relations and all real estate related functions including the development, purchase, sale, use and lease of all Airport properties and facilities. He also oversees air service development, food, beverage and retail concessions, rental cars, advertising and other business development activities. Additionally, Mr. Tyrrell is responsible for all business development related activities at Northeast Airport. Prior to his current appointment, Mr. Tyrrell had served as the Deputy Director of Aviation, Property Management and Business Development since February 2001 and prior to that, in various capacities including Airport's Properties Manager and as an Airport Properties Assistant. Mr. Tyrrell holds a Bachelor of Science degree in Marketing from Saint Joseph's University, is an AAAE Certified Member and serves on ACI-NA's Air Cargo, Air Service, U.S. International Air Service Program, Commercial Management and Business Diversity committees. Mr. Tyrrell was recognized in 2016 by Airport Revenue News as Airport Property Manager of the Year.

Description of the Airport

The Airport was opened in 1940 and is owned by the City and operated by the Division of Aviation. The Airport serves residents of and visitors to a broad geographic area that includes portions of four states: Pennsylvania, New Jersey, Delaware and Maryland. The primary service region of the Airport consists of the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Areas. See "THE AIRPORT SERVICE REGION" herein. The Airport is located partly in the southwestern section of the City and partly in the northeastern section of Delaware County, 7.2 miles from Center City, Philadelphia. It is adjacent to Interstate 95 and is served by a commuter rail line with direct service to Center City, Philadelphia, operated by the Southeastern Pennsylvania Transportation Authority ("SEPTA").

Land. The Airport contains approximately 2,447 acres, which the City owns in fee simple subject only to certain liens or encumbrances which do not interfere with the orderly operation of the Airport. In 2015, the Airport purchased an adjacent property to the airport known as International Plaza, which has two fully leased buildings with approximately 500,000 square feet of rentable space on a 27-acre tract of land, which is included in the total acreage noted previously. The Airport also purchased four parcels of land in 2016 and 2017 that resulted in the current Airport acreage noted previously. These properties were acquired for future Airport expansion, enhancement, and development. The Airport is attempting to acquire an approximately 135-acre track (known as the Henderson property) to the west of the airport through condemnation. The acquisition is being litigated by the previous owners.

Airfield. The airfield consists of parallel runways 9L-27R and 9R-27L, crosswind runway 17-35 and commuter runway 8-26, together with interconnecting taxiways and aircraft parking aprons. The runway system is capable of handling the largest commercial aircraft currently operated by the Signatory Airlines. The current lengths and widths of runways comprising the runway system are set forth in the table below.

Runway	Length (ft)	Width (ft)
9R-27L	10,506	200
9L-27R	9,500	150
17-35	6,501	150
8-26	5,000	150

The Airport has embarked on a project to extend existing Runway 9R-27L to the east by approximately 1,500 feet to a total length of 12,000 feet. This project is currently under construction and scheduled for completion in 2018.

Passenger Terminals. The passenger terminal complex located north of the two main runways comprises seven terminal units, each providing a concourse for aircraft loading and unloading; a landside building for passenger ticketing, check-in, and security screening; and a separate baggage claim building. The landside buildings and baggage claim buildings are served by separate curbside roadway systems. The terminal complex provides a total of approximately 3.3 million square feet of space and 126 aircraft gates.

Ticketing and baggage claim operations occupy the ground level and are served by ground level roadways. Airline operational facilities and baggage make-up areas are located on the ground level of the Terminal Building and in the concourses. While airline office space is provided adjacent to ticket counter locations or in concourses, there are also offices in the connectors, the tower levels in A/B, B, and F Terminals, and the baggage claim buildings. Approximately 151,000 square feet of space in the passenger terminals has been developed for food, beverage and retail concessions, which are located throughout the post-security terminal buildings and concourses and in the baggage claim buildings.

Parking and Outside Terminal Area. The Outside Terminal Area includes public parking facilities, ground transportation and rental car facilities, and an airport hotel.

Public parking facilities, which are leased to and operated by the PPA, consist of five multi-story garages and surface lots immediately north of the terminals (approximately 11,823 spaces) and a remote surface lot (approximately 7,117 spaces) served by shuttle buses.

Seven car rental brands (Alamo, Avis, Budget, Dollar, Enterprise, Hertz, and National) lease facilities and parking areas adjacent to the parking garages, and offer shuttle bus pickup and drop off service to passengers. Off-Airport rental car operators include Payless Car Rental, Sixt, Advantage, E-Z and Thrifty Car Rental. As part of the Airport's capital program, Airport management is in the planning phases of constructing a consolidated rental car facility ("CONRAC"). Although the car rental concessions are physically located in the Outside Terminal Area, the majority of the revenues payable by the car rental companies are Project Revenues.

Parkway Corporation manages the Airport ground transportation dispatch system and provides for the sequencing of taxicabs and limousines in the Airport's taxicab holding area and their orderly dispatch to and from the terminal baggage claim facilities. An eight-zone system for delineating commercial traffic is in effect on the north and south sides of the baggage claim areas, which provides separate zones for SEPTA's Hi-Speed Line, rental car shuttles, parking shuttles, hotel shuttles, taxicabs, inter-terminal shuttles, limousine and shuttle van services and charter buses and courier services. The City imposes egress fees for commercial vehicles based upon the seating capacity. All commercial vehicles are subject to the fees and must pay to enter the commercial roadway at a tollbooth operated by Parkway Corporation. The only exception to the fees is for those operators who do not operate "for hire" (i.e., rental car courtesy vehicles and hotel courtesy vehicles).

As mentioned previously, the Airport negotiated a three-year license agreement with two TNCs to pay per-trip fees of $3.00 pick-up and $2.60 per drop-off to PHL based on the number of Airport passenger drop offs and pick-ups.

Host Marriott Corporation operates a 15-story hotel adjacent to the Terminals A-B parking garage and connected to Terminal B via a skybridge with approximately 414 guest rooms and 5 suites on approximately three acres leased from the City. It features a restaurant, lounge and eleven meeting rooms, including a grand ballroom which is approximately 8,640 square feet in area. Hotel customer parking is provided in the adjacent parking garage and connected to the hotel by a skybridge.

General Aviation Facilities. Atlantic Aviation, a fixed-base operator located at the easternmost end of the Airport, services general aviation operations. This 29-acre facility, constructed and operated by Atlantic Aviation, opened in May 2000 with: an 8,800 square-foot terminal building; two 24,000 square-foot open hangars; a fuel farm consisting of two 20,000 gallon jet fuel tanks and one 10,000 gallon aviation gas tank; and 18 acres of ramp space.

Cargo and Other Facilities. There are six active cargo facilities located at the western end of the Airport, which include: the shared American Airlines/United Airlines building, two American Airlines buildings, two Aero Philadelphia buildings, Prologis, Inc. and Ridgely Group. UPS Air Cargo operates its east coast package handling and sorting hub from an approximately 700,000 square-foot building located at the southeastern side of the Airport.

American Airlines operates a 56,000 square foot ground service equipment facility at the west end of the Airport that handles repairs and upkeep on equipment that service American Airlines' daily arrivals and departures to and from Airport. The building achieved Leadership in Energy and Environmental Design (LEED) Silver certification.

American Airlines also operates an aircraft maintenance hangar, a 25,000 square foot cold storage facility and parking apron on 9.15 acres of land located in Cargo City.

Hertz Rent-A-Car operates a maintenance facility located on 10 acres of land at the corner of 84th Street and Bartram Avenue.

Northeast Airport

Northeast Airport is located on a 1,126-acre site situated within the City limits about 10 miles by road northeast of Center City, Philadelphia, and provides for general aviation, air taxi and corporate aviation, as well as occasional military aviation use.

The Northeast Airport currently has no scheduled commercial service. In recent years, the Northeast Airport has handled approximately 75,000 general aviation operations annually. There are 85 T-hangars and nine corporate hangars in use, and six open hangars available for general aviation activities.

General aviation fuel services for both propeller and jet aircraft as well as aircraft and avionics maintenance are available. There are approximately 175 general aviation aircraft based at the Northeast Airport.

Two fixed based operators service general aviation operations at the Northeast Airport. Atlantic Aviation is located on the southwest side of the Northeast Airport. This facility consists of the following facilities: an 8,000 square-foot terminal building, four open hangars totaling a combined 73,280 square feet, 65 T-hangars, a fuel farm consisting of two 15,000 gallon tanks, and 17 acres of ramp space. The North Philadelphia Jet Center is located on the northeast side of the Northeast Airport. The Jet Center opened in 1977 and has subsequently been renovated. The Jet Center includes a two-story 8,000 square-foot terminal building, two open hangars totaling a combined 20,000 square feet, a fuel farm consisting of four 10,000 gallon fuel tanks, and 20 T-hangars.

Leonardo Helicopters ("Leonardo") operates out of a 275,000 square foot facility, on a 39-acre site at Northeast Airport. The facility includes final assembly lines for the AW119Kx and AW139 helicopters, a parts supply depot for the Americas and a fully approved FAA and JAA repair station. Leonardo also performs helicopter customization, as well as providing maintenance services for customer aircraft based in the local area. Leonardo is also working on developing the AW609 which is a tiltrotor (VTOL) vertical takeoff and landing aircraft.

CAPITAL DEVELOPMENT PROJECTS AT THE AIRPORT

General

The Division of Aviation maintains an on-going capital plan that addresses airport development needs, as well as repair and maintenance of existing facilities. The following sections describe the Division's capital plans, including a shift from the prior Capacity Enhancement Program ("CEP") to the Capital Development Program ("CDP").

In January 2011, the FAA approved the CEP for the Airport, a program with the purpose of enhancing airfield capacity to address delays at the Airport. At that time, the Airport had been long identified by the FAA as one of the airports contributing to delays throughout the National Airspace System (NAS). The CEP was based on the Airport's Master Plan and included projects addressing runway length, airfield geometry, runway capacity, in addition to expansion and reconfiguration of the existing terminal complex.

In September 2011, the FAA awarded a $466.5 million Letter of Intent (LOI) to provide some funding for airfield elements of the CEP. From 2007 through 2017, improvements to air traffic control were implemented by FAA, and some airfield improvements were completed by the Airport. These improvements, in conjunction with a decrease in operational activity during this same period (due in part to airline changes to their aircraft fleets and increase to average seats per operation), resulted in reduced aircraft movements and a reduction in delays at the Airport. As a result, the Airport and Airlines priorities shifted from airfield capacity and delay projects, such as a new runway, and focused instead on the terminal, gate capacity, landside, and cargo development. Additionally, airfield improvement priorities were reassessed by the Airlines, Airport and the FAA.

In 2017, the Airport and the FAA agreed to close the LOI, which resulted in the suspension of FAA's Record of Decision and a formal closure notice posted by FAA in the Federal Register in October 2017. This is anticipated to allow the Airport to focus FAA Entitlement and future Discretionary Grant funding for other airfield improvements rather than projects associated with the new runway. The Airport Master Plan, which includes the new runway project, is still valid and the Airport intends to preserve the ability to construct the new runway and other projects when operational needs warrant it.

The shift in capital priorities to terminal, landside, and cargo development along with reprioritized airfield improvements, has resulted in the Airport implementing a revised capital plan that incorporates terminal, landside and cargo projects identified in the Master Plan in addition to near-term capital facility needs, including on-going rehabilitation and repair projects. That plan is identified as the CDP and is described in more detail below.

Under the Airline Agreement, the Airlines have approved approximately $2.4 billion in capital development projects, of which approximately $370.1 million have been completed. The CDP includes approximately $2.0 billion of airline approved projects remaining to be completed, which incorporate long-term development projects and on-going rehabilitation and repair projects that generally address the Airport's capital needs. The primary focus of the CDP is for the terminal development and rehabilitation, airfield improvements and pavement rehabilitation, apron improvements, land acquisition, ground transportation projects, security and information technology enhancements, support facilities, and improvements at the Northeast Airport. The Airport continues to work with the airlines to evaluate operational needs at the Airport and assess the timing and scope of projects. The CDP will continue to evolve as adjustments are made.

The Northeast Airport is a general aviation airport that has two runways. The Northeast Airport does not provide commercial service, is owned by the City and operated by the Division and is included in the City's Aviation Fund.

Airfield and Apron Improvements

Airfield and apron improvement projects comprise approximately $699.1 million, or 34.9 percent of the total CDP. Major airfield improvements in CDP include: 9R-27L Runway extension and taxiway work; construction of an air traffic control tower, which is contingent on partial federal funding; an airfield pavement program; deicing improvements; wetlands mitigation; airfield security and access control; lighting and electrical improvements; and additional airfield and apron improvement and equipment.

Terminal and Landside Improvements

Terminal and landside improvements projects comprise approximately $812.6 million, or 40.2 percent of the total CDP. Major terminal improvements in the CDP include: Terminal D and E ticketing hall and checked baggage system renovations; planning and design for international gate expansion; loading bridge replacement; terminal systems rehabilitation and improvements; terminal interior and exterior renovations and improvements; roof replacement program; restroom renovation program; baggage handling system improvements; terminal concession development and redevelopment; and other terminal improvements. Major landside improvements include: improvements to support facilities and other projects.

Security and Information Technology

Security and Information Technology (IT) improvement projects comprise approximately $67.1 million, or 3.3 percent of the total CDP. Major security improvements in the CDP include: perimeter surveillance upgrades; badging system upgrades, design of automated unstaffed exited lanes expansion, expansion of the ID badging office, Terminal B/C boarding bridge access control extension, additional security and perimeter gate improvements, and construction of redundant IT support facilities to maintain business continuity.

Land Acquisition and Ground Transportation Projects

The CDP includes approximately $88.4 million in proposed land acquisition and approximately $312.1 million for development of a CONRAC facility and associated transportation system. In total, these two projects comprise approximately $400.5 million, or approximately 20.3 percent of the total CDP.

Northeast Airport

Northeast Airport improvement projects comprise approximately $26.0 million, or 1.3 percent of the total CDP. Major improvements in the CDP include: runway rehabilitation taxiway rehabilitation program, airfield lighting program, Runway Safety Area (RSA) upgrades, and signage improvements.

Funding Sources for Airport System Capital Projects

Airport System Capital Projects have been financed primarily through federal and Commonwealth grants-in-aid, PFCs, Customer Facility Charge (CFC) Revenues, Airport Revenue Bonds (including the Commercial Paper Notes) and general obligation bonds of the City. The Airport expects to continue to fund capital development projects with a combination of federal and Commonwealth grants-in-aid, PFCs, CFC Revenues and proceeds from additional issues of Airport Revenue Bonds.

Airport Revenue Bonds. The financing of a portion of the Capital Developments for the Airport System has been accomplished through the sale of Airport Revenue Bonds. See "INTRODUCTION – Outstanding and Additional Indebtedness" for a list of the outstanding Airport Revenue Bonds. No general obligation bonds of the City issued to finance Capital Developments to the Airport System are currently outstanding or contemplated.

The financing of capital development projects with MII Approval under the Airline Agreement allows the City to include the debt service on Airport Revenue Bonds issued for such approved projects in the rates, fees and charges paid by the Signatory Airlines. Based on current project cash flow estimates, the following table shows the current and completed Capital Projects that have received MII Approval under the Airline Agreement and the amount to be funded with Airport Revenue Bonds over the next several years. As existing or additional projects receive additional MII Approval, the amount of Airport Revenue Bonds to be issued may increase. The financial analysis included in the Report of the Airport Consultant includes approximately $815 million of project costs funded with Airport Revenue Bonds through fiscal year 2023. See APPENDIX I – "REPORT OF THE AIRPORT CONSULTANT."

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Table 1
Current Capital Development Program as of November 1, 2017
City of Philadelphia, Division of Aviation
(in thousands)

		Total Project Costs[1]
AIRFIELD AND APRON IMPROVEMENTS		
Runway 9R-27L extension and taxiway work	$	202,800
Air Traffic Control Tower		197,500
Airfield Pavement Program		65,750
Deicing Improvements		49,710
Wetlands Mitigation		30,000
Airfield Security and Access Control		28,000
Lighting & Electrical Improvements		19,000
Other Airfield Improvements and Equipment		75,300
Apron projects		31,000
	$	**699,060**
TERMINAL AND LANDSIDE IMPROVEMENTS		
Terminal Redevelopment and Expansion	$	420,090
Loading Bridge Replacement Program		43,000
Terminal Systems Rehabilitation and Improvements		61,250
Terminal Interior and Exterior Renovations and Improvements		46,800
Roof Replacement Program		17,500
Restroom Renovation Program		28,250
Baggage Handling System Improvements		23,000
Terminal Concession Development		13,000
Other Terminal Improvements		19,500
PHL Support Facilities		96,500
Other landside improvements		43,720
	$	**812,610**
SECURITY AND INFORMATION TECHNOLOGY		**67,160**
LAND ACQUISITION AND GROUND TRANSPORTATION PROJECTS		
Land Acquisition	$	88,400
Ground Transportation		312,090
	$	**400,490**
NORTHEAST AIRPORT PROJECTS		**26,000**
Total Approved Capital Development Program	**$**	**2,005,320**

[1] Does not include $370.1 million of completed CDP projects.
Source: City of Philadelphia, Department of Commerce, Division of Aviation, November 2017.
Prepared by: Ricondo & Associates, Inc. and AVK Consulting, Inc. November 2017

Table 2

Funding of Current Capital Development Program as of November 1, 2017
City of Philadelphia, Division of Aviation
(in thousands)

SOURCES OF FUNDING	
PFC / Grants	$340,951
CFC / Other	319,584
Existing Bonds / Direct Loan	95,228
Proposed 2017 Bonds	431,053
Proposed 2020 Bonds	384,905
Future Debt	433,605
Estimate Total Sources of Funds	**$2,005,320**

Source: City of Philadelphia, Department of Commerce, Division of Aviation, November 2017.
Prepared by: Ricondo & Associates, Inc. and AVK Consulting, Inc. November 2017.

Federal Grants-in-Aid. The Airport and Airway Improvement Act of 1982 created the Airport Improvement Program (the "AIP"), which is administered by the FAA and funded by the Airport and Airway Trust Fund. This fund is financed by various federal aviation user taxes. Grants are available to airport operators across the country in the form of "entitlement" funds and "discretionary" funds. Entitlement funds are apportioned annually based upon cargo volume and enplaned passengers, and discretionary funds are available at the discretion of the FAA based upon a national priority system. Actual entitlement funds will vary with the actual number of passenger enplanements and cargo volume, with total appropriations for the AIP and with any revision of the existing statutory formula for calculating such funds. In addition, pursuant to the PFC Act (defined below) and the Aviation Investment and Reform Act for the 21st Century, an airport's annual Federal entitlement grants are reduced by 50% following the imposition of PFCs at the $3.00 level and by 75% following imposition at the $4.00 or $4.50 level.

In September 2011, the FAA committed to the City a $466.5 million LOI to provide funding for certain airfield elements of the CEP. From Federal fiscal year 2013 through 2016, the City was awarded a total of $86.1 million in LOI grant funds for CEP airfield improvements and the acquisition of land. From 2007 through 2017 airspace improvements were implemented by FAA, as well as certain airfield improvements were undertaken by the Airport. These improvements, in conjunction with a decrease in operational activity during this same period (due in part to airline changes to their aircraft fleet and increase to average seats per operation), resulted in improved operations at the Airport. These improved operations caused the Airport to shift its Master Plan project priorities from significant airfield capacity projects, such as the new runway, to terminal, landside, and cargo development and reprioritized airfield improvements. In 2017, the Airport and the FAA agreed to close the LOI, which resulted in the suspension of FAA's Record of Decision and a formal closure notice posted by the FAA in the Federal Register in October 2017. The closure of the LOI allows the Airport to focus FAA entitlement and future discretionary grant funding for other airfield improvements rather than projects associated with the new runway under the CEP. However, the Airport intends to preserve the ability to construct the new runway and other projects when operational needs warrant it.

In Federal fiscal year 2017, the Airport was awarded a total of almost $16.7 million in AIP entitlement and discretionary funds. During the last five Federal fiscal years (2013-2017), the Airport has received approximately $20.8 million a year, which includes LOI funding as discussed above.

Commonwealth Grants-in-Aid and Other Assistance. The Pennsylvania Department of Transportation (PennDOT), through Act 164 of 1984, provides grants for airport improvements. Over the last five years, the Airport has received approximately $800,000 per year for improvements at the Airport and received on average $20,100 per year in matching AIP funds for improvements at the Northeast Airport. In addition, over the last five years, the Airport received $5,075,100 from the State Capital Budget. These grants have been used for airfield improvements.

Customer Facility Charges For Rental Car Facility. On November 25, 2013, the Governor of Pennsylvania signed a comprehensive transportation bill into law which permitted the Airport to establish and collect a customer facility charge ("CFC") of not more than $8 per rental day on customers renting motor vehicles from Airport rental car operators. The proceeds of the CFC collections are to be used solely for the planning, development, financing, construction and operation of a CONRAC and associated transportation system referenced in the CDP. Rental car operators began collecting CFCs in May 2014 at $8 per rental day from their customers and remitting them to the Airport. As of June 30, 2017, CFC collections total approximately $97.6 million.

Passenger Facility Charges. PFCs are authorized by the Aviation Safety and Capacity Expansion Act of 1990, as amended (the "PFC Act"), and implemented by the FAA pursuant to published regulations issued with respect to the PFC Act (the "PFC Regulations"). The PFC Act permits a public agency, such as the City, which controls certain commercial service airports to charge each paying passenger enplaning at the airport (subject to certain limited exceptions) a PFC of up to $4.50. Pursuant to the PFC Act and to the City's current approvals from the FAA, the City may, with certain exceptions, charge each paying passenger who enplanes at the Airport a PFC of $4.50. The annual amount of PFCs payable to the City depends upon the number of passenger enplanements at the Airport. The PFC Act requires air carriers and their agents to collect the PFCs and to remit to the City once each month the proceeds of such collections, less a $0.11 handling fee and without interest earned prior to such remittance.

PFCs are to be used to finance FAA-approved airport-related projects that preserve or enhance capacity, safety or security of the national air transportation system, reduce noise from an airport that is part of the system or provide an opportunity for enhanced competition between or among air carriers or foreign air carriers. Examples of projects that could meet those objectives include airport development or planning, airfield rehabilitation/improvements, airport noise compatibility measures, roads and access projects, and terminal development such as the planning and construction of gates and related areas that facilitate the movement of passengers and baggage.

The FAA approval provides that bond documents, such as the General Ordinance, may define pledged airport revenues in a manner that would include PFCs. However, the FAA approval also provides that the use of PFCs is limited to the allowable costs of approved PFC projects ("PFC-Eligible" projects) and may not be used to pay debt service on any bonds issued to finance non-PFC-Eligible projects. The use of PFCs deposited in the special PFC account in the Aviation Capital Fund for any other project would require special FAA approval. Under the

General Ordinance, PFCs do not constitute Project Revenues, but may be included in Amounts Available for Debt Service to the extent that such PFCs have been pledged pursuant to a Supplemental Ordinance. PFCs may also be made available for debt service including as Designated PFC Revenues for Debt Service.

The City has, since September 1992, been authorized by the FAA to impose a PFC on eligible passengers enplaned at the Airport and to use PFCs to pay the costs of various FAA-approved projects. The PFC was initially $3.00 per enplaned passenger and, effective April 1, 2001, was increased to $4.50 per enplaned passenger. The City currently has authority from the FAA to impose the PFC and to collect PFCs, inclusive of investment earnings, in an aggregate amount of $1.56 billion. The estimated expiration date of such authority is May 2021.

As of June 30, 2017, PFCs received by the City, including investment earnings, totaled approximately $1.22 billion, of which approximately $1.14 billion had been expended on approved project costs, including debt service of PFC-Pledge Bonds. Further detail on the City's PFCs is provided in Table 3.

The City is authorized to use PFCs to pay all or a portion of the PFC-Eligible Debt Service Requirements of the PFC-Pledge Bonds in an aggregate amount not exceeding the PFC-Eligible Debt Service Requirements of the PFC-Pledge Bonds. The City pledges PFCs, to the extent annually available to the City, equal to the total amount of the PFC-Eligible Debt Service on the PFC-Pledge Bonds over the life of such PFC-Pledge Bonds. The amount of such PFCs to be applied toward debt service on any annual basis will be determined year-to-year by the City.

See "CERTAIN INVESTMENT CONSIDERATIONS – Passenger Facility Charge Revenues."

Table 3
Annual PFCs
Philadelphia International Airport
(Fiscal Years Ending June 30)

Fiscal Year	Collections	Interest	Total Revenues
1993-2006	$506,426,126	$26,514,049	$532,940,175
2007	65,328,768	5,047,045	70,375,813
2008	70,120,974	5,098,760	75,219,734
2009	60,898,941	1,886,741	62,785,682
2010	61,696,738	353,391	62,050,129
2011	62,338,653	191,092	62,529,745
2012	59,885,669	325,805	60,211,475
2013	58,495,629	414,832	58,910,461
2014	60,377,268	329,507	60,706,774
2015	60,644,306	436,648	61,080,954
2016	61,256,560	538,897	61,795,457
2017	$55,151,223	933,337	56,084,560
Total	$1,182,620,855	$42,070,104	$1,224,690,959

Expenditures through June 30, 2017....................................$1,135,694,112
PFC Account Balance...$88,996,847

Source: City of Philadelphia, Division of Aviation.

THE AIRPORT SYSTEM – AIRPORT ACTIVITY AND SIGNATORY AIRLINES

Aviation Activity at the Airport

As of December 2017, the airlines serving the Airport provided a total of 434 average daily departures to 109 destinations, including 86 domestic and 23 international destinations. In July 2018, scheduled passenger service increases to 497 average daily departures to 125 destinations, comprised of 92 domestic and 33 international destinations, inclusive of seasonal service.

Table 4 provides the air carriers serving the Airport as of December 2017.

Table 4
Airlines Serving the Airport as of December 2017

LEGACY/MAINLINE U.S. AIRLINES (5)	LOW-COST AIRLINES (4)	REGIONAL AIRLINES (12)	ALL-CARGO AIRLINES (2)
Alaska Airlines	Frontier Airlines	Air Wisconsin (dba American Eagle)	FedEx
American Airlines	JetBlue Airways	Compass Airlines (dba Delta Connection)	UPS Air Cargo
Delta Air Lines	Southwest Airlines	Endeavor Air (dba Delta Connection)	
United Airlines	Spirit Airlines	Envoy Air (dba American Eagle)	
Virgin America		ExpressJet Airlines (dba Delta Connection and United Express)	
		GoJet Airlines (dba Delta Connection and United Express)	
		Mesa Airlines (dba United Express)	
FOREIGN AIRLINES (5)		Piedmont Airlines (dba American Eagle)	
Air Canada		PSA Airlines (dba American Eagle)	
British Airways		Republic Airlines (dba American Eagle and United Express)	
Lufthansa		SkyWest Airlines (dba Delta Connection and United Express)	
Qatar Airways		Trans States Airlines (dba United Express)	
Icelandair			

NOTE: dba = Doing Business As

SOURCES: Innovata, September 2017.

PREPARED BY: Ricondo & Associates, Inc., September 2017.

The Airport historically served as a major hub for US Airways. On December 9, 2013, the parent companies of US Airways and the prior American Airlines merged to form the American Airlines Group, Inc. (referred to herein as American Airlines). American Airlines was awarded a single operating certificate on April 8, 2015. American Airlines is the principal air carrier operating at the Airport, and the Airport serves as a primary hub in American Airlines' route system. American Airlines currently leases 75 gates under the American Airlines Airline Agreement and utilizes another 17 gates on a common-use basis, for 73% of the total 126 gates at the Airport. As set forth in the Market Analysis and Financial Projections, American Airlines, together with its regional airline affiliates, accounted for approximately 10.4 million enplaned passengers, or 70.0% of the Airport's enplaned passengers, in fiscal year 2017, followed by Southwest Airlines with 7.8% and Delta Airlines with 7.0%.

Table 5 presents historical data for domestic and international enplaned passengers at the Airport and Table 6 provides enplanement activity by airline.

Enplaned passenger traffic peaked in 2008 as Southwest Airlines expanded airport operations to 71 daily flights to 20 cities. However, beginning in fiscal year 2008 and through fiscal year 2011, enplaned passenger traffic decreased an average of 0.9 percent per year reflecting the global economic recession, higher fuel prices and capacity cuts by the airlines. In fiscal year 2011, total enplaned passengers increased 2.8 percent primarily due to continued growth from US Airways.

Total enplaned passengers at the Airport decreased by 1.7 percent in fiscal year 2012 followed by an additional decrease of 0.8 percent in fiscal year 2013. During this period, US Airways' enplaned passenger traffic increased by 0.6 percent and 2.2 percent, respectively, and new entrants Alaska Airlines and Virgin America began operating at the Airport in fiscal year 2012. Southwest Airlines continued to reduce operations at the Airport during this period, partially offset by service added by Delta Air Lines.

In fiscal year 2014, enplaned passengers increased by 0.7 percent reflecting continued growth by legacy carriers American Airlines, Delta Air Lines and US Airways, declines by Southwest Airlines and United Airlines, growth by Spirit Airlines, Alaskan Airlines and JetBlue Airways and new service from Qatar Airways, which commenced daily service to Doha in April 2014.

In fiscal year 2015, enplaned passenger traffic was flat. Reductions in enplaned passenger traffic from the new American Airlines, Delta Air Lines, Southwest Airlines and United Airlines, as well as the suspension of Virgin America service in October 2014 were offset by increases from low cost carriers Frontier Airlines and JetBlue Airways and international service from British Airways, Lufthansa German Airlines and Qatar Airways.

In fiscal year 2016, enplaned passenger traffic increased by 2.4% reflecting service to several new destination cities by low-cost carriers, specifically Frontier Airlines and Spirit Airlines. JetBlue Airways also added twice daily service to Fort Lauderdale, Florida during the course of fiscal year 2016. This growth was offset by slight reductions in outbound international traffic, which was mainly attributable to American Airlines discontinuing year-round service to Tel Aviv, Israel in early January 2016 and seasonal service to Edinburgh, Scotland, which did not return in May 2015. Additionally, American Airlines temporarily suspended service to Brussels, Belgium in March 2016 after a series of coordinated bombings in the city, two of which occurred at Brussels Airport. American Airlines later closed the Brussels station across their entire network.

In fiscal year 2017, enplaned passenger traffic decreased by 5.6%, largely attributed to capacity reductions and schedule restructuring undertaken by American Airlines. The decrease in international enplaned passengers as a result of the discontinuation of service in 2016 as discussed herein was offset, in part, by a capacity increase at London Heathrow Airport, a critical hub that provides access to a large local passenger base as well as to passengers connecting from other airports. Additional international capacity growth by Air Canada which increased service to

Montreal, Canada and nonstop service to Reykjavik, Iceland by Icelandair in May 2017, partially offset the effect of capacity reductions that occurred in fiscal year 2017.

Scheduled departing seats to international destinations is expected to increase 2.8% from fiscal year 2017 to fiscal year 2018 as American plans to launch seasonal service to Budapest, Hungary and Prague, Czech Republic in May 2018. American will also resume previously canceled year-round international service to Zurich, Switzerland in March 2018. Additionally, Aer Lingus announced in October 2017 service between the Airport and Dublin, Ireland will begin in March 2018.

Between fiscal year 2008 and fiscal year 2017, the total number of enplaned passengers at the Airport decreased at a compound annual growth rate of (0.9)%.

Table 5
Historical Enplaned Passengers
Philadelphia International Airport
(Fiscal Years Ending June 30)

Fiscal Year	Domestic	International	Total	Total Annual Increase (Decrease)
2008	13,971,056	2,081,917	16,052,973	1.3
2009	13,357,446	2,005,297	15,362,743	(4.3)
2010	13,113,239	2,080,502	15,193,741	(1.1)
2011	13,407,158	2,204,425	15,611,583	2.8
2012	13,134,251	2,209,875	15,344,126	(1.7)
2013	13,021,515	2,194,370	15,215,885	(0.8)
2014	13,059,804	2,256,249	15,316,053	0.7
2015	13,072,574	2,240,164	15,312,738	0.0
2016	13,484,253	2,199,305	15,683,558	2.4
2017	12,775,958	2,031,019	14,806,882	(5.6)
		Compound Annual Growth Rate		
2008-2017	(1.0%)	(0.3%)	(0.9%)	

Source: City of Philadelphia, Division of Aviation, U.S. Department of Transportation August 2017, Bureau of Transportation Statistics (U.S. total), October 2017.

Table 6
Historical Total Enplaned Passengers
by Airline Philadelphia International Airport
(Fiscal Year Ending June 30)

	Fiscal Year 2013		Fiscal Year 2014		Fiscal Year 2015		Fiscal Year 2016		Fiscal Year 2017	
Airlines [1/]	**Enplaned Passengers**	**Share**	**Enplaned Passengers**	**Share**	**Enplaned Passengers**	**Share**	**Enplaned Passengers**	**Share**	**Enplaned Passengers**	**Share**
American Airlines[2/]	**11,549,729**	75.9%	**11,781,929**	76.9%	**11,723,633**	76.6%	**11,397,694**	72.7%	**10,361,644**	70.0%
Southwest Airlines	1,350,819	8.9%	1,116,209	7.3%	1,059,963	6.9%	1,133,501	7.2%	1,152,350	7.8%
Delta Air Lines	1,059,638	7.0%	1,093,845	7.1%	1,071,866	7.0%	1,145,534	7.3%	1,040,270	7.0%
Frontier Airlines	51,256	0.3%	24,891	0.2%	190,893	1.2%	554,469	3.5%	648,505	4.4%
United Airlines	735,940	4.8%	645,520	4.2%	611,799	4.0%	640,419	4.1%	644,036	4.3%
Spirit Airlines	30,747	0.2%	129,417	0.8%	142,411	0.9%	245,438	1.6%	361,782	2.4%
JetBlue Airways	15,502	0.1%	116,655	0.8%	123,511	0.8%	183,285	1.2%	205,817	1.4%
British Airways	110,271	0.7%	112,422	0.7%	120,461	0.8%	128,290	0.8%	118,177	0.8%
Air Canada	53,728	0.4%	56,524	0.4%	56,038	0.4%	61,797	0.4%	77,018	0.5%
Lufthansa German Airlines	54,906	0.4%	63,334	0.4%	70,438	0.5%	69,405	0.4%	73,251	0.5%
Alaska Airlines	47,617	0.3%	54,569	0.4%	56,514	0.4%	59,076	0.4%	64,154	0.4%
Qatar Airways	-	0.0%	18,299	0.1%	57,650	0.4%	61,745	0.4%	52,728	0.4%
Virgin America	155,152	1.0%	97,932	0.6%	26,566	0.2%	-	0.0%	-	0.0%
Other [3/]	580	0.0%	4,507	0.0%	995	0.0%	2,905	0.0%	7,150	0.0%
Airport Total	**15,215,885**	**100.0%**	**15,316,053**	**100.0%**	**15,312,738**	**100.0%**	**15,683,558**	**100.0%**	**14,806,882**	**100.0%**

Notes: Figures may not add to totals shown due to rounding.
1/ Includes regional affiliated airlines, as applicable.
2/ American Airlines and US Airways merged on December 9, 2013, and a Single Operating Certificate was awarded April 2015. Historical numbers of enplaned passengers are combined in this table.
3/ Includes airlines with minimal market shares or that may not operate at the Airport as of fiscal year 2017.

Source: City of Philadelphia, August 2017.
Prepared by: Ricondo & Associates, Inc., September 2017.

Air service at the Airport has been introduced or discontinued by multiple air carriers. Table 7 below depicts new air service that has been introduced at the Airport as well as air service that has been ended at the Airport between July 2016 and what is currently scheduled up to June 2018 (scheduled).

Table 7
Scheduled and Discontinued Air Service
Philadelphia International Airport
(July 2016 through June 2018)

	Added Since July 2016
Aer Lingus	Dublin, Ireland (DUB)
Alaska Airlines	Los Angeles, CA (LAX), Portland, OR (PDX), San Francisco, CA (SFO)
American Airlines	Budapest, Hungary (BUD), Des Moines, Iowa, (DSM), Madison, WI (MSN), Omaha, Nebraska, (OMA), Prague, Czech Republic, (PRG), San Antonio, TX, (SAT)
Frontier Airlines	Charleston, SC (CHS), Fort Myers (RSW), Houston-Intercontinental (IAH), Jacksonville, FL (JAX), Madison, WI (MSN), Memphis, TN (MEM), Omaha, NE (OMA), San Juan, Puerto Rico (SJU)
Icelandair	Reykjavik, Iceland (KEF)
Spirit Airlines	Orlando, FL (MCO)
Southwest Airlines	Fort Lauderdale, FL (FLL)
	Discontinued Since July 2016
American Airlines	Binghamton, NY (BGM), Brussels, Belgium (BRU), Elmira, NY (ELM), Newark, NJ (EWR), Freeport, Bahamas (FPO), Ft. Wayne (FWA), White Plains, NY (HPN), Portland, OR (PDX), Salt Lake City, UT (SLC), Halifax, Nova Scotia, Canada (YHZ), Quebec City, Quebec, Canada (YQB)
Delta Air Lines	London-Heathrow, England (LHR), Paris-Charles de Gaulle, France (CDG)
Frontier Airlines	Cleveland, OH (CLE), Columbus, OH (CMH), Indianapolis, Indiana (IND), Chicago-O'Hare (ORD), Raleigh/Durham, NC (RDU), St. Augustine, FL (UST)

Source: Innovata, November 2017.

The Airport also provides significant air cargo service as shown in Table 8. United Parcel Service (UPS) operates a regional cargo hub at the Airport that connects the UPS network with mid-Atlantic and European markets. The Airport ranks second among UPS' continental U.S. hubs in terms of destinations served and third in terms of cargo weight. Additionally, passenger airlines carry belly cargo to and from the Airport.

Table 8
Historical Air Cargo (in US tons)
Philadelphia International Airport
(Fiscal Years Ending June 30)

Fiscal Year	Freight	Mail	Total	Growth
2008	575,640	22,181	597,821	1.4%
2009	475,365	24,692	500,057	(16.4%)
2010	440,495	20,544	461,039	(7.8%)
2011	449,683	23,937	473,620	2.7%
2012	416,731	27,151	443,882	(6.3%)
2013	388,383	28,285	416,668	(6.1%)
2014	395,661	29,545	425,206	2.0%
2015	402,194	26,681	428,875	0.9%
2016	414,891	22,866	437,757	2.1%
2017	424,009	24,659	448,668	2.5%
	Compound Annual Growth Rate			
2008-2017	(3.3%)	1.2%	(3.1%)	

Source: City of Philadelphia, Division of Aviation, December 2016; U.S. Department of Transportation, DB1B Survey, December 2016.
Prepared by: Ricondo & Associates, Inc., November 2017.

Information Concerning Airlines Operating at the Airport

General. The Airline Agreement requires the Signatory Airlines to make payments in each fiscal year in amounts which, together with other Project Revenues and other pledged Amounts Available for Debt Service such as pledged PFCs, are sufficient to pay Operating Expenses and annual debt service on all of the City's outstanding Airport Revenue Bonds and general obligation bonds issued by the City for the Airport System and are sufficient to comply with the Rate Covenant. See "SOURCES OF PROJECT REVENUES UNDER THE GENERAL ORDINANCE — Airport-Airline Use and Lease Agreements."

Certain domestic Signatory Airlines serving the Airport are reporting companies subject to the information requirements of the Securities Exchange Act of 1934 and, in accordance therewith, must file reports and other information with the Securities and Exchange Commission (the "Commission"). Certain information, including financial information, concerning such a Signatory Airline (or its agent corporation) is disclosed in certain reports and statements filed with the Commission. Such reports and statements can be inspected in the Public Reference Room of the Commission at 100 F Street, N.E., Washington, D.C. 20549, or at the Commission website at http://www.sec.gov, and copies of such reports and statements can be obtained from the Public Reference Section of the Commission at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates.

In addition, each Scheduled Airline is required to file periodic reports of financial and operating statistics with the Department of Transportation. Such reports may be inspected at the following location: Office of Aviation Information Management; Data Requirements and Public Reports Division Research and Special Programs Administration, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590.

Domestic airlines serving the Airport that are privately held, foreign airlines serving the Airport, and foreign corporations operating airlines serving the Airport (unless such foreign airlines have American Depositary Receipts ("ADR") registered on a national exchange) are not required to file information with the Commission. Such airlines, or foreign corporations operating airlines, serving the Airport file limited information only with the Department of Transportation ("DOT"). Additional data may be posted at the websites of the respective airlines. The City makes no representation as to the accuracy or completeness of any such information prepared and filed by any of the Signatory Airlines.

American Airlines

The Airport currently serves as a major hub for the combined American Airlines system. As set forth in the Market Analysis and Financial Projections, American Airlines, together with its regional airline affiliates, accounted for approximately 10.4 million enplaned passengers, or 70.0% of the Airport's enplaned passengers, in fiscal year 2017. See "CERTAIN INVESTMENT CONSIDERATIONS – Dominance of American Airlines Presence at the Airport" herein.

Based on its current activities at the Airport, American Airlines is an "obligated person" as such term is defined by Rule 15c2-12 promulgated by the Commission ("Rule 15c2-12") and as used in the Continuing Disclosure Agreement to be executed by the City and accepted and acknowledged by American Airlines in connection with the delivery of the Bonds. See "CONTINUING DISCLOSURE AGREEMENT" and APPENDIX VII – "FORM OF CONTINUING DISCLOSURE AGREEMENT."

Philadelphia Terminal & Equipment Company

In 2016, Airlines operating at the Airport that have executed the Airline Agreement established Philadelphia Terminal & Equipment Company ("PhiliTEC"), a special purpose limited liability company to manage the maintenance and operation of certain facilities, equipment, systems and services at the Airport twenty-four (24) hours a day, seven (7) days a week. The City entered into a Maintenance and Operating License Agreement with PhiliTEC on February 10, 2017, providing for PhiliTEC assumption of maintenance and operating responsibilities thereafter as agreed. The City and PhiliTEC agreed for PhiliTEC assumption on July 1, 2017 of responsibility for the operation of, and provision of maintenance services for, aircraft deicing facilities. The City and PhiliTEC agreed for PhiliTEC assumption on August 1, 2017 of responsibility (including financial responsibility) for the operation of, and provision of corrective and preventive maintenance services for, Airport passenger boarding bridges, outbound baggage handling systems, international recheck systems, inbound arriving baggage handling systems, electric GSE charging stations, and lavatory waste stations. Prior to August 1, 2017 the City had paid contractors for these maintenance and operating services. Ownership of the systems and facilities remains with the City.

THE AIRPORT SERVICE REGION

Philadelphia International Airport is the principal airline airport serving the City of Philadelphia and surrounding areas of Pennsylvania, New Jersey, Delaware, and Maryland. The Airport serves as an international passenger gateway for the region and as a connecting hub and leading transatlantic gateway for American Airlines. The Airport also serves as an international air cargo hub. According to APPENDIX I – "REPORT OF THE AIRPORT CONSULTANT", the Airport Service Region (or Air Trade Area as referred to therein) had a population of approximately 6.1 million in 2016. Its population has increased at a compound annual growth rate of 0.4% since 2000, compared to a compound annual growth rate of 0.9% for the nation as a whole. According to Market Analysis and Financial Projections, the Airport Service Region's 2016 per capita personal income of $52,778 was 18.2% higher than that of the nation $44,637.

FINANCIAL FACTORS

The City Controller has not participated in the preparation of the budget estimates and projections set forth in various tables contained in this Official Statement or otherwise set forth herein. The financial statements, tables, statistics and other information contained in this Official Statement have been provided by the Division of Aviation and can be reconciled to the financial statements in the City's Comprehensive Annual Financial Report ("CAFR") for the fiscal years 2011 through 2016.

Historical Project Revenues and Operating Expenses

Table 9 contains data provided by the Division of Aviation from its unaudited accrual basis reports and presents information regarding Project Revenues and expenses of the City's Airport System. The information presented in Table 9 reconciles to the Basic Financial Statements contained in the City's Comprehensive Annual Financial Report (CAFR), which is audited by the Office of the City Controller.

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Table 9
Summary of Historical Project Revenues and Expenses of the Airport System
(Fiscal Years Ending June 30)
(Amounts expressed in thousands)

	Amounts Available for Debt Service	2013	2014	2015	2016	2017*
1.	Space rentals	$101,393	$97,743	$109,731	$108,115	$113,400
2.	Landing Fees	63,877	80,265	64,708	73,968	80,457
3.	Ramp Area rentals	1,051	1,229	1,064	1,213	572
4.	International Terminal revenues	20,042	24,874	26,572	34,025	33,747
5.	Subtotal, Airline Rentals, Fees and Charges	$186,363	$204,111	$202,075	$217,322	$228,175
6.	Nonairline Revenue	103,519	112,759	119,096	123,434	133,658
7.	Interest Income	1,899	24	1,676	494	232
8.	Total Project Revenues	$291,781	$316,893	$322,847	$341,250	$362,065
9.	Passenger Facility Charges (PFCs) Available for Debt Service	31,160	31,168	31,169	31,176	33,693
10.	Portion of Fund Balance Attributable to Amounts Available for Debt Service	69,272	66,542	66,340	71,220	87,875
11.	Total Amounts Available for Debt Service	$392,213	$414,604	$420,356	$443,646	$483,633
	Expenses					
12.	Net Operating Expenses	$110,210	$117,282	$125,967	$132,149	$136,498
13.	Required Renewal Fund Deposit	500	500	0	500	250
14.	Revenue Bond Debt Service	109,836	125,397	125,248	120,595	122,596
15.	Interdepartmental Charges	101,858	103,902	108,692	106,775	116,753
16.	Total Expenses	$322,404	$347,081	$359,907	$360,019	$376,097
17.	Net Revenue	$69,809	$67,523	$60,449	$83,626	$107,536
	Rate Covenant Test of the General Ordinance					
18.	Test A (Line 11-Line 12-Line 13)/(Line 14)	2.56	2.37	2.35	2.58	2.83
19.	Test B (Line 11-Line 12-Line 13-Line 15)/(Line 14)	1.64	1.54	1.48	1.69	1.88

Source: Unless otherwise noted, the information presented above reconciles to the Basic Financial Statements contained in the City's Comprehensive Annual Financial Report (CAFR), which is audited by the Office of the City Controller.
* Fiscal year 2017 information is based on the City's preliminary year-end unaudited financial results.

Management Discussion of Historical Results

Table 9 presents the annual revenues and expenses of the Airport System for fiscal years 2013 through 2017. Fiscal year 2017 information is based on the City's preliminary year-end unaudited financial results. The information contained in Table 9 is presented on the accrual basis of accounting adjusted to meet the particular requirements of the General Ordinance and the current and the prior Airline Agreement. See APPENDIX II – "FINANCIAL STATEMENTS OF THE DIVISION OF AVIATION FISCAL YEAR ENDED JUNE 30, 2016."

Fiscal Year 2016 and Fiscal Year 2017 Discussion

Between fiscal years 2016 and 2017, Total Project Revenues, which consist of both Airline and Nonairline Revenues, increased from $341.3 million to $362.3 million. Airline Revenues increased from nearly $217.3 million in fiscal year 2016 to $228.2 million in fiscal year 2017, as projected in the rates and charges budget, primarily due to an increase in Operating Expenses related to hiring of additional personnel and associated fringe benefit costs, increases in contractual services for facility maintenance costs, and equipment and vehicle purchases deferred from prior years. These increases in expenses were offset by an increase in Nonairline Revenues from nearly $123.4 million in fiscal year 2016 to $133.7 million in fiscal year 2017 primarily due to the Airport's concession development program, an increase in the short-term parking rate, higher utilization of the economy parking lot, and a full year of fee recovery from the TNCs.

Net Revenue

Net Revenue represents the balance of Total Amounts Available for Debt Service after total Expenses. Net Revenues have increased from $83.6 million in fiscal year 2016 to $107.5 million in fiscal year 2017. This increase is attributable to the increase in Non-Airline Revenues described previously, the continued replenishment and funding of the Bond Redemption and Improvement Account and the O&M Account, and the increase in prior fund balances available for Debt Service.

Rate Covenants

As illustrated in Table 9, the rate covenants prescribed in the General Ordinance were satisfied in each fiscal year. The increase in debt service coverage from fiscal year 2013 to fiscal year 2017 is attributable to increases in OTA net revenues and replenishment of the Airport's funds used to mitigate the airline rate impacts over a three-year period beginning in fiscal year 2016.

Non-Airline Revenues

Non-Airline Revenues consist of those Project Revenues generated at the Airport System from sources other than airlines (e.g., automobile parking, rental cars, restaurants, retail, landside building and ground rents, hangar and cargo rentals). A majority of the Airport System's Non-Airline Revenues are generated from concessions. The following Table 10 presents Non-Airline Revenue at the Airport from fiscal year 2013 through fiscal year 2017.

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Table 10
Summary of Historical Non-Airline Revenues of the Airport System
(Fiscal Years Ending June 30)
(Amounts expressed in thousands)

	2013	2014	2015	2016	2017*
Non-Airline Revenues					
Concessions					
Automobile Parking	$ 23,939	$ 23,756	$ 27,824	$ 28,600	$ 32,556
Rental Car	19,352	19,130	17,973	18,925	19,037
Restaurants and Retail	23,651	27,241	29,665	28,871	29,845
Ground Transportation	1,717	2,872	3,233	3,821	6,851
Other Concessions	7,407	7,998	8,598	9,839	10,299
	$ 76,067	$ 80,997	$ 87,293	$ 90,057	$ 98,588
Other Non-Airline Revenues					
Building and Ground Rentals	14,662	16,063	15,973	17,437	19,295
Hangar and Cargo Rentals	2,561	2,324	2,388	2,361	2,312
Sales of Utilities	3,483	4,199	3,457	3,175	2,871
Other Landing and Fuel Flowage Fees	1,937	1,937	2,193	1,713	2,583
Miscellaneous	4,809	7,239	7,792	8,691	8,240
Total Non-Airline Revenues	$ 103,519	$ 112,759	$ 119,096	$ 123,434	$ 133,890

Source: City of Philadelphia, Division of Aviation, November 2017.
Prepared by: Ricondo & Associates, Inc., November 2017.
* Fiscal year 2017 information is based on the City's preliminary year-end unaudited financial results.

Concession revenues were approximately $76.1 million in fiscal year 2013, and increased to approximately $98.6 million in fiscal year 2017, reflecting a compound annual growth rate of 6.7%. The increase in fiscal year 2013 through fiscal year 2017 resulted from enhanced food, beverage and retail concession offerings at the Airport, the entry of TNCs and increased utilization of the Airport's long-term parking lot.

Estimated Project Revenues and Expenses

Table 11 contains data provided by the Airport regarding estimated Project Revenues and expenses of the City's Airport System for actual amounts for fiscal year 2017 and for budgeted amounts for fiscal year 2018.

Table 11
Summary of Project Revenues and Expenses
Philadelphia International Airport
FY 2017 and Budget FY 2018
(Fiscal Years Ending June 30)

		Actual FY 2017*	Budget FY 2018
Amounts Available for Debt Service			
Airline Rentals, Fees and Charges[1]		$ 228,175	$ 247,765
Non-Airline Revenue		133,890	131,225
Total Project Revenues		$ 362,065	$ 378,990
Passenger Facility Charges (PFCs) Available for Debt Service[2]		33,693	31,202
Portion of Fund Balance Attributable to Amounts Available for Debt Service[3]		87,875	106,442
Total Amounts Available for Debt Service	[A]	$ 483,633	$ 516,634
Expenses			
Net Operating Expenses	[B]	$ 136,748	$ 148,747
Interdepartmental Charges		116,753	120,250
Total Operating Expenses		$ 253,501	$ 268,997
Bond Debt Service Requirements	[C]	122,596	127,862
Total Expenses		$ 376,097	$ 396,859
Net Revenue	[A-B=D]	$ 346,886	$ 367,887
1.50x Coverage Requirement (Test A)	[D÷C]	2.83	2.88

* Fiscal year 2017 information is based on the City's preliminary year-end unaudited financial results.
1. Includes required revenue for Terminal Area rentals, International and Common Use Fees, Ramp Area rentals and Airline Landing Fees.
2. Includes pledged PFC Revenues for eligible Debt Service on the Series 2010D and the Series 2011A Bonds.
3. Per Section 5.01(a) of the General Ordinance, that portion of Aviation Operating Fund balance available for use as Amounts Available for Debt Service.
Source: City of Philadelphia, Division of Aviation.

Management Discussion of Fiscal Year 2017 Actual and Fiscal Year 2018 Budget

Based on fiscal year 2018 budgeted Operating Expenses, Debt Service and Non-Airline Revenues, required Airline Revenues, Fee and Charges in the fiscal year 2018 budget are $247.8 million, a $19.6 million (8.6%) increase over fiscal year 2017. Non-Airline Revenues are expected to decrease by $6.7 million and Other Amounts Available for Debt Service are expected to be increase by $15.8 million. However, these increases in Airline Revenues are expected to be offset by an increase in Project Expenses of $16.7 million (4.4%), including a $15.5 million increase in Operating Expenses, a $1.2 million increase in Debt Service, and no increase in required deposits to the Operating and Maintenance and the Bond Redemption and Improvement Accounts, which includes:

- A projected $12.0 million increase in Net Operating Expenses, which is comprised of the following: a $8.8 million increase in contractual services for facility maintenance; a $2.2 million increase in payroll expenses; a $1.1 million increase in the purchase of materials, supplies and equipment; and a 0.1 million decrease in taxes, deposits to the Renewal Fund, and other expenses.

- A projected $3.5 million increase in Interdepartmental Charges, including: a $1.9 million increase in Airport employee payroll, pension and health and welfare costs, a $2.4 million increase in payroll expenses for the uniformed (police and fire) employees and other City employees providing service to the Airport, a $1.4 million increase in utility (electric and natural gas) costs from anticipated rate increases, a $0.2 million increase for insurance costs and expected settlements of claims that occurred during previous years, and a $2.4 million decrease for new vehicle purchases.

Outstanding and Additional Indebtedness

The following chart reflects the Airport's debt secured on a parity basis by the Pledged Amounts, including its Commercial Paper Notes, and, by Series, its bonds issued under the General Ordinance outstanding as of November 1, 2017:

Series	Amount Outstanding as of November 1, 2017
2005C	$110,700,000
2007A*	146,780,000
2007B*	46,785,000
2009A*	32,930,000
2010A	251,310,000
2010C	8,995,000
2010D	185,755,000
2011A	161,240,000
2011B	26,440,000
2015A	90,525,000
2017 Taxable Bonds	125,000,000
Commercial Paper Notes**	267,100,000
Total	$1,453,560,000

The above-referenced 2010D Bonds and 2011A Bonds are additionally secured by a pledge of PFCs and are sometimes hereinafter referred to, collectively, as the "PFC-Pledge Bonds." As discussed herein, the City may in the future pledge PFCs, to the extent annually available to the City, to pay debt service on all or a portion of the 2017 Bonds. See "SECURITY FOR THE AIRPORT REVENUE BONDS — City May Pledge Passenger Facility Charges Revenues" below for further information on the Pledged PFCs that additionally secure only the PFC-Pledge Bonds.

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* The Series 2007A&B Bonds and Series 2009A Bonds are being refunded with a portion of the proceeds from the 2017 Bonds.

** A portion of the Commercial Paper Notes are being refunded with a portion of the proceeds from the 2017 Bonds.

The City may issue additional Airport Revenue Bonds for new capital projects or to refund outstanding Airport Revenue Bonds as more fully described herein under "SECURITY FOR THE AIRPORT REVENUE BONDS – Issuance of Additional Airport Revenue Bonds." If the City receives the approval of the Signatory Airlines as required under the Airline Agreement, or if the project does not require the approval of the Signatory Airlines under the Airline Agreement, the City is authorized to include the debt service on Airport Revenue Bonds issued to finance such approved capital projects in the airlines' rates, fees and charges. See "CAPITAL DEVELOPMENT PROJECTS AT THE AIRPORT – Funding Sources for Airport System Capital Projects – Airport Revenue Bonds" herein.

The City established a $350 million commercial paper program (i.e., the Commercial Paper Notes) in 2013 to provide funding for capital projects for the Airport System approved by the Signatory Airlines. Proceeds of the 2017 Bonds will be used to refund a portion of the Commercial Paper Notes. After issuance of the 2017 Bonds and the application of the proceeds thereof to the refunding of certain Commercial Paper Notes, $141,162,000 of Commercial Paper Notes will be outstanding. The Commercial Paper Notes are secured by three direct pay letters of credit provided by Sumitomo Mitsui Banking Corporation, acting through its New York Branch, PNC Bank, National Association, and Wells Fargo Bank, National Association which expire in 2019, as well as Pledged Amounts (as defined herein) on parity with the other outstanding Airport Revenue Bonds.

Schedule of Debt Service

The following schedule of debt service shows the debt service requirements on the 2017 Bonds together with estimated debt service on other outstanding Airport Revenue Bonds.

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Table 12
Schedule of Debt Service
Philadelphia International Airport
(Fiscal Years Ending June 30)

	2017 Bonds			Other Outstanding Airport Revenue Bonds	
Fiscal Year	Principal	Interest	Total Debt Service on 2017 Bonds**	Existing Debt Service*	Total Debt Service**
2018	$ 9,715,000	$18,146,350	$27,861,350	$107,780,549	$135,641,899
2019	12,830,000	33,716,794	46,546,794	92,685,895	139,232,689
2020	14,620,000	33,075,294	47,695,294	92,711,995	140,407,289
2021	19,490,000	32,344,294	51,834,294	92,744,119	144,578,412
2022	20,455,000	31,369,794	51,824,794	92,769,904	144,594,697
2023	21,485,000	30,347,044	51,832,044	92,786,769	144,618,813
2024	22,560,000	29,272,794	51,832,794	92,806,730	144,639,523
2025	23,680,000	28,144,794	51,824,794	92,826,958	144,651,752
2026	24,875,000	26,960,794	51,835,794	77,713,811	129,549,605
2027	26,105,000	25,717,044	51,822,044	77,755,303	129,577,346
2028	21,570,000	24,411,794	45,981,794	76,567,988	122,549,781
2029	22,650,000	23,333,294	45,983,294	35,004,487	80,987,780
2030	20,220,000	22,200,794	42,420,794	35,054,937	77,475,731
2031	21,240,000	21,189,794	42,429,794	35,098,797	77,528,590
2032	22,300,000	20,127,794	42,427,794	32,545,928	74,973,722
2033	23,415,000	19,012,794	42,427,794	32,601,614	75,029,408
2034	24,590,000	17,842,044	42,432,044	32,646,064	75,078,108
2035	25,710,000	16,720,744	42,430,744	32,693,039	75,123,783
2036	26,890,000	15,539,681	42,429,681	25,077,875	67,507,556
2037	28,125,000	14,302,900	42,427,900	25,130,340	67,558,240
2038	18,305,000	13,000,250	31,305,250	25,186,271	56,491,521
2039	19,220,000	12,085,000	31,305,000	25,248,638	56,553,638
2040	20,180,000	11,124,000	31,304,000	25,305,050	56,609,050
2041	21,185,000	10,115,000	31,300,000	6,708,618	38,008,618
2042	22,245,000	9,055,750	31,300,000	6,774,923	38,075,673
2043	28,750,000	7,943,500	36,693,500	6,840,075	43,533,575
2044	30,190,000	6,506,000	36,696,000	6,913,933	43,609,933
2045	31,695,000	4,996,500	36,691,500	6,986,078	43,677,578
2046	33,285,000	3,411,750	36,696,750	7,066,371	43,763,121
2047	34,950,000	1,747,500	36,697,500	7,095,794	43,793,294
Total	$692,530,000	$563,761,875	$1,256,291,875	$1,399,128,851	$2,655,420,725

* Debt service on the Series 2005C Bonds is calculated using actual fixed swap payments as outlined in the swap documents, plus current Letter of Credit fees relating to the Series 2005C Bonds. The debt service schedule assumes an interest rate of 2.797% through maturity on the 2017 Taxable Bonds. The debt service schedule does not include debt service on the Refunded Bonds or the Commercial Paper Notes.

** Figures may not add to totals shown due to rounding.

Source: City of Philadelphia, Office of City Treasurer

Airline costs for landing fees, terminal rentals and other use charges are often expressed on a cost per enplaned passenger basis. The following Table 13 presents the airline costs (which include landing fees, terminal rentals and other use charges) per enplaned passenger taken from the City's financial records.

Table 13

Airline Cost per Enplaned Passenger
Philadelphia International Airport
(Fiscal Years Ending June 30)

Fiscal Year	Airline Cost Per Enplaned Passenger
2013	$10.48
2014	11.74
2015	12.89
2016	14.97
2017	15.59

Source: City of Philadelphia, Division of Aviation

The budgeted airline cost per enplaned passenger for fiscal year 2018 is $14.97.

Cash Management and Investment Policies

As a division of the City, the Airport is subject to the City's cash management and investment policies. See APPENDIX III – "THE CITY OF PHILADELPHIA GOVERNMENT AND FINANCIAL INFORMATION – CITY CASH MANAGEMENT AND INVESTMENT POLICIES."

Pensions and OPEBs

As a division of the City, the Airport is subject to the City's pension plan and OPEBs liability. See APPENDIX III – "THE CITY OF PHILADELPHIA GOVERNMENT AND FINANCIAL INFORMATION – PENSION SYSTEM" and "– OTHER POST-EMPLOYMENT BENEFITS."

Hedges and Swaps

General. The City has adopted a swap policy for the use of swaps, caps, floors, collars and other derivative financial products. See APPENDIX III – "THE CITY OF PHILADELPHIA GOVERNMENT AND FINANCIAL INFORMATION – OTHER FINANCING RELATED MATTERS – Swap Policy."

The General Ordinance authorizes the City, at the time of issuance of a series of Bonds or at any time thereafter, to enter into interest rate exchange agreements, interest rate swap agreements or other similar agreements, to the extent permitted by applicable law and in accordance with the General Ordinance, if the City determines that such agreement will assist the City in more effectively managing its interest costs. Such agreements may be effected as Qualified Swaps or as Exchange Agreements. Payments under Qualified Swaps (other than termination payments) are made from the Sinking Fund and are calculated as part of Debt Service Requirements, and payments under Exchange Agreements (other than termination payments) are made only after required deposits to the Sinking Fund and the Sinking Fund

Reserve are made and are on a parity with required deposits to the Renewal Fund. Termination payments on Qualified Swaps and on a certain Exchange Agreement (discussed below) are permitted to be made only after required transfers to the Sinking Fund, Sinking Fund Reserve and the Renewal Fund have been made.

The General Ordinance provides, among other things, that the City will not enter into a Qualified Swap or Exchange Agreement unless it receives written confirmation from a rating agency that such agreement, in and of itself, will not result in a downgrade, withdrawal or suspension of the credit ratings on the series of Bonds.

In 2002, the City entered into a swap agreement. In 2005, JP Morgan Chase Bank – New York, the counterparty exercised its option, and the interest rate swap agreement (the "Swap Agreement") commenced. The Swap Agreement is associated with the 2005C Bonds and terminates on June 15, 2025 if not previously terminated by the counterparty. The Swap Agreement is an "Exchange Agreement," as such term is defined in the General Ordinance. The City's obligations under the Swap Agreement are payable solely from and secured solely by Project Revenues in the order of priority listed in Section 4.06 of the General Ordinance, that is, subject and subordinate to the City's obligations to pay Net Operating Expenses, Debt Service Requirements (including debt service on the 2017 Bonds, payments on Qualified Swaps and Credit Facility charges secured on a parity to 2017 Bonds) and obligations to replenish the Sinking Fund Reserve. Further, the City's obligation to pay termination payments with respect to the Swap Agreement and the security interest in Project Revenues therefor are subject and subordinate to its obligation to make periodic payments under the Swap Agreement. As of November 1, 2017, the fair value of the Swap Agreement was negative $8.7 million to the City, including accrued interest.

Letter of Credit Agreements

The City has entered into two letter of credit agreements relating to the Series 2005C Bonds as detailed in the table below. Under the terms of such letter of credit agreements, following a purchase of the applicable bonds, the City may be required to amortize such bonds more quickly than as originally scheduled at issuance.

[Remainder of page intentionally left blank]

Table 14
Letter of Credit Agreements
Philadelphia International Airport
(Related to Series 2005C Bonds)

Sub-Series	Amount Outstanding	Bond Maturity Date	Provider	Expiration Date	Rating Thresholds
2005C-1	$65,600,000	June 15, 2025	TD Bank	Dec. 23, 2019	The unenhanced ratings assigned by any two or all of the Ratings Agencies are withdrawn or suspended for credit-related reasons or falls below investment grade.
2005C-2	$65,600,000	June 15, 2025	Royal Bank of Canada	Dec. 22, 2019	Any unenhanced rating is withdrawn or suspended for credit-related reasons or falls below investment grade.

Source: City of Philadelphia, Division of Aviation.

The City has also entered into three letter of credit agreements for the Airport's Commercial Paper Notes as described above under "–Outstanding and Additional Indebtedness." Such letter of credit agreements expire in 2019.

Aviation Liability and Property Insurance

The City maintains comprehensive Aviation Liability Insurance coverage for claims arising out of bodily injury, personal injury or property damage arising from the operations of the Airport System. This insurance coverage provides a combined single limit of $600 million. The Self Insured Retention is $1,500,000 each occurrence/$1,500,000 annual aggregate. "War Risk" coverage in the amount of $100 million is also provided under the City's General Liability Insurance policy. The City also maintains "All Risks" Property Insurance coverage for property at the Airport System (including real and business) in the amount of $2 billion with deductibles of $250,000 at Philadelphia International Airport and $100,000 at Northeast Airport and International Plaza (Buildings 1 and 2). The Property policy also includes but is not limited to business interruption (including loss of rents and extra expense), mechanical breakdown coverage, electronic data processing coverage, flood, earthquake, and terrorism coverage.

CERTAIN INVESTMENT CONSIDERATIONS

The purchase and ownership of the 2017 Bonds entails certain investment risks. Prospective purchasers of the 2017 Bonds are urged to read this Official Statement, including the Appendices, in its entirety. The factors set forth below, among others, may affect repayment of and the security for the 2017 Bonds.

General Factors Affecting the Airline Industry

The revenues of the Airport are affected substantially by the economic health of the airport transportation industry and the airlines serving the Airport. Particularly, since 2001 the airline industry has undergone structural changes and sustained significant financial losses until recently. The economic condition of the industry is volatile and the industry is sensitive to a variety of factors, including (i) the cost and availability of fuel, labor, aircraft, and insurance, (ii) general economic conditions, (iii) international trade, (iv) currency values, (v) competitive considerations, including the effects of airline ticket pricing, (vi) traffic and airport capacity constraints, (vii) governmental regulation, including security regulations and taxes imposed on airlines and passengers, and maintenance and environmental requirements, (viii) passenger demand for air travel, and (ix) disruption caused by airline accidents, criminal incidents and acts of war or terrorism. Due to the discretionary nature of business and personal travel spending, airline passenger traffic and revenues are heavily influenced by the strength of the U.S. economy, other regional economies, corporate profitability, safety and security concerns and other factors. Ongoing structural changes to the industry are the result of a number of factors including the impact of low cost carriers, internet travel web sites and carriers reorganizing under the U.S. Bankruptcy Code.

Economic Conditions

The financial performance of the air transportation industry correlates with the state of the national economy and the global economy. Future increases in passenger traffic will depend largely on the ability of the U.S. to sustain growth in economic output and income. There can be no assurances that the prolonged weak economic conditions or other national and international fiscal concerns will not have an adverse effect on the air transportation industry.

Aviation Fuel Costs

Airline earnings are significantly affected by changes in the price of aviation fuel. According to the Air Transport Association (the "ATA"), fuel, along with labor costs, is one of the largest cost components of airline operations, and therefore is an important and uncertain determinate of an air carrier's operating economics. There has been no shortage of aviation fuel since the "fuel crisis" of 1974, but there have been significant fluctuations in the price of fuel.

Airline earnings are affected by changes in the price of aircraft fuel, which in turn is affected by natural disasters, hostilities and political unrest in various parts of the world, Organization of the Petroleum Exporting Countries (OPEC) policy, the increased demand for fuel caused by the rapid growth of the economies of certain countries, disruptions to production and refining operations, the levels of fuel inventory maintained by certain industries, currency fluctuations, the amount of fuel reserves maintained by governments, and other factors determining demand and supply. While current fuel costs have decreased, significant and prolonged high aviation fuel costs or any decreases in the availability of aviation fuel would likely have an adverse impact on air transportation industry economics and the ability to provide air service.

Public Health Concerns

Travel restrictions and alerts, as well as other public health measures, may be imposed to limit the spread of communicable diseases which may arise. In recent years, the World Health Organization and the U.S. Department of Health and Human Services (through the Secretary of the Department of Homeland Security) declared public health emergencies as the result of outbreaks of a certain serious communicable disease. The widespread outbreak of and any travel imposed restrictions imposed in relation to the communicable disease could negatively impact passenger activity at the Airport.

Cyber Security

Computer networks and data transmission and collection are vital to the safe and efficient operation of the Airport, the airlines that serve the Airport and other tenants of the Airport. Despite security measures, information technology and infrastructure of the Airport, any of the airlines serving the Airport or any other tenants at the Airport may be vulnerable to attacks by outside or internal hackers, or breached by employee error, negligence or malfeasance. Any such breach or attack could compromise systems and the information stored thereon. Any such disruption or other loss of information could result in a disruption in the efficiency of the operation of the Airport and/or the airlines serving the Airport and the services provided at the Airport, thereby adversely affecting the ability of the Airport to generate revenue.

Demand for Air Travel

Airline fares have an important effect on passenger demand, particularly for relatively short trips where the automobile, rail or other land travel modes are alternatives and for price-sensitive "discretionary" travel, such as vacation travel. Airfares are influenced by airline operating costs and debt burden, passenger demand, capacity and yield management, market presence and competition. If airlines are unable to charge fares sufficiently high to cover operating costs and interest expense they will experience financial difficulty, which could adversely affect Airport revenues and the willingness of the airlines to approve additional capital development projects.

Many factors have combined to alter consumer travel patterns. The threat of terrorism against the United States remains high. As a result, the federal government has mandated various security measures that have resulted in security taxes and fees and longer passenger processing and wait times at airports. Both add to the costs of air travel and make air travel less attractive to consumers relative to ground transportation, especially to short-haul destinations.

Capacity of National Air Traffic Control and Airport Systems

Demands on the nation's air traffic control system continue to cause aircraft delays and restrictions, both on the number of aircraft movements in certain air traffic routes and on the number of landings and takeoffs at certain airports. These restrictions affect airline schedules and passenger traffic nationwide. In addition, increasing demands on the national air traffic control and airport systems could cause increased delays and restrictions in the future.

Aviation Safety and Security Concerns

Concerns about the safety of airline travel and the effectiveness of security precautions, particularly in the context of potential international hostilities and terrorist attacks, may influence passenger travel behavior and air travel demand. Travel behavior may be affected by anxieties about the safety of flying and by the inconveniences and delays associated with more stringent security screening procedures, both of which may give rise to the avoidance of air travel generally and the switching from air to surface travel modes.

Although the U.S. government, airlines and airport operators have upgraded security measures to guard against terrorist incidents and maintain confidence in the safety of airline travel, no assurance can be given that these precautions will be successful. The possibility of intensified international hostilities and further terrorist attacks involving or affecting commercial aviation are a continuing concern that may affect future travel behavior and airline passenger demand.

Further, future enhanced securities procedures may significantly increase inconvenience and delays at airports, including the Airport, again impacting passenger demand for air travel.

Climate Change Issues and Possible New Regulation

Climate change concerns are shaping laws and regulations at the federal and State levels that could have a material adverse effect on airlines operating at the Airport and could also affect ground operations at the Airport. Studies report that airplane emissions equal approximately 12% of all U.S. transportation and more than 3% of total U.S. greenhouse gas emissions. While the U.S. Environmental Protection Agency (the "EPA") does not currently regulate greenhouse gas ("GHG") emissions from aircraft, it could do so in the future. When drafting aircraft emission regulations, the EPA must consult with the Administrator of the FAA and the Secretary of Transportation, and such regulations must not significantly increase noise or adversely affect safety. The President may also disapprove if the Secretary of Transportation advises that the regulations create a hazard to aircraft safety. No assurances can be provided as to the likelihood or potential impact of any such future proposed or enacted regulations.

New Technologies and Services

The growth of new technologies and services may impact the Airport's ability to generate revenues and its costs to provide services to meet the needs of its tenants and customers. For example, the rising popularity of TNCs such as Uber Technologies Inc. and Lyft, Inc., may impact Airport ground transportation, parking and rental car revenues. At this time, the Airport cannot predict the impact of TNCs on its operating revenues.

Cost of Capital Development Program

The ability of the Airport to complete its Capital Development Program may be adversely affected by various factors including: (1) incorrect assumptions for cost and schedule estimates, (2) design and engineering oversights, (3) changes to the scope of the projects, including changes to federal security regulations, (4) delays in contract awards, (5) material and/ or labor shortages, (6) unforeseen site conditions, (7) adverse weather conditions and other force majeure events, (8) contractor defaults, (9) labor disputes, (10) unanticipated economic events such as inflation and (11) environmental issues. No assurance can be made that the projects will not exceed the currently budgeted amounts. Any schedule delays or cost increases could result in the need to issue additional indebtedness, including additional tax-exempt bonds and may result in increased costs per enplaned passenger to the airlines or other rate increases.

Dominance of American Airlines Presence at the Airport

As noted above under "THE AIRPORT SYSTEM – AIRPORT ACTIVITY AND SIGNATORY AIRLINES – American Airlines," American Airlines is, by far, the largest

Signatory Airline at the Airport. A large portion of American Airlines business relates to connecting traffic. If American Airlines ceases or significantly reduces operations at the Airport, other airlines may not pick up all of the traffic. The loss of American Airlines could also leave the remaining Signatory Airlines with significant additional financial commitments.

On December 9, 2013, the parent companies of US Airways and the prior American Airlines merged to form American Airlines Group, Inc.

The City has no information regarding the financial condition of American Airlines and its future plans generally, and with regard to the Airport in particular, other than from bankruptcy court filings and filings with the Commission. The Commission's website is http://www.sec.gov.

Neither the City nor the Underwriters undertake any responsibility for or make any representations as to the accuracy or completeness of the content of information available from the Commission, including but not limited to, updates of such information or links to other internet sites accessed through the Commission's web site.

See also "Effect of Bankruptcies and Mergers on Various Airline Agreements" and "Limitations on Bondholders' Remedies" below.

Forward-Looking Statements

The statements contained in this Official Statement, including the Appendices, and in any other information provided by the City and other parties to this transaction described herein that are not purely historical are forward-looking statements. Such forward-looking statements can be identified, in some cases, by terminology such as "may," "will," "should," "expects," "projects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "illustrate," "example," and "continue," or the singular, plural, negative or other derivations of these of other comparable terms. Readers should not place undue reliance on forward-looking statements. All forward-looking statements included in this Official Statement are based on information available to such parties on the date hereof, and the City assumes no obligation to update any such forward-looking statements. The forward-looking statements included herein are necessarily based on various assumptions and estimates and are inherently subject to various risks and uncertainties, including, but not limited to, risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in various important factors. Accordingly, actual results may vary from the projections, forecasts and estimates contained in this Official Statement, including the Appendices, and such variations may be material, which could affect the ability to fulfill some or all of the obligations under the 2017 Bonds.

Market Analysis and Financial Projections

The financial projections in the Market Analysis and Financial Projections regarding the Airport are based generally upon certain assumptions, as well as economic, demographic and development trends. See APPENDIX I - "REPORT OF THE AIRPORT CONSULTANT," including, particularly, Section 8.1 – "Assumptions Underlying the Projections" therein. Inevitably, some of the assumptions and other data used to develop the projections will not be realized, and unanticipated events and circumstances may occur. Therefore, the actual financial results achieved during the projection periods will vary from the financial projections, and such differences may be material.

Passenger Facility Charges

In the event that the City does not collect expected PFCs, it may have to use other Pledged Amounts to pay debt service on the PFC-Pledge Bonds. Such an event likely would require the City to increase rates and fees, including landing fees and terminal rentals, and/or reduce operating expenses to pay debt service costs and other costs of capital projects.

The ability of the City to collect annually sufficient PFCs depends upon a number of factors including the operation of the Airport by the City, the number of enplanements at the Airport, the use of the Airport by the carriers collecting the PFCs (the "Collecting Carriers"), and the efficiency and ability of the Collecting Carriers to collect and remit PFCs to the City. The City relies upon the Collecting Carriers' collection and remittance of PFCs and both the City and the FAA rely upon the air carriers' reports of enplanements and collections.

Further, the City's authority to impose PFCs is expected to expire in 2021. The City cannot guarantee that a new application to extend that authority will be timely submitted to, or approved by, the FAA.

In addition, the FAA may terminate the City's authority to impose PFCs, subject to informal and formal procedural safeguards, or the PFC Act, the PFC Regulations, or the City's approvals from the FAA could be amended in a manner that would adversely affect the City's ability to collect and use PFCs.

The PFC Act provides that PFCs collected by the airlines constitute a trust fund held for the beneficial interest of the eligible agency (i.e., the City) imposing the PFCs, except for any handling fee or retention of interest collected on unremitted proceeds. In addition, federal regulations require airlines to account for PFC collections separately and to disclose the existence and amount of funds regarded as trust funds for financial statements. However, the airlines are permitted to commingle PFC collections with other revenues and are also entitled to retain interest earned on PFC collections until such PFC collections are remitted. In the event of a bankruptcy, the PFC Enabling Act, as amended in December 2003, provides that (1) PFCs are and remain trust funds, (2) the airline in bankruptcy may not grant to any third party any security or other interest in PFC revenue, and (3) the airline in bankruptcy must segregate in a separate account PFC revenue equal to its average monthly PFC liability. Despite these enhanced statutory protections, it is unclear whether the City would be able to recover the full amount of PFC trust funds collected or accrued with respect to an airline in the event of a liquidation or cessation of business. The City also cannot predict whether an airline operating at the Airport, that files for bankruptcy, would have properly accounted for PFCs owed to the City or whether the bankruptcy estate would have sufficient moneys to pay the City in full for PFCs owed by such airline. All airlines operating at the Airport are current in the payment of PFCs owed to the City.

Effect of Bankruptcies and Mergers on Various Airline Agreements

General; Bankruptcies and Mergers. The Airport derives a substantial portion of its operating revenues from landing fees, rentals and concession fees. The financial strength and stability of the airlines serving the Airport, together with numerous other factors, influence the level of aviation activity at the Airport. In addition, individual airline decisions regarding the level of service, particularly hubbing activity and aircraft size (such as the use of regional jets) can affect total enplanements.

The airlines serving the Airport have all been impacted by the financial difficulties and bankruptcies of other carriers and have experienced an increase in costs and a resulting decline in financial condition to varying degrees. Since 2001, several airlines with operations at the Airport have filed for and have subsequently emerged from bankruptcy protection. Additional bankruptcies, liquidations, mergers or major restructurings of other airlines could occur. It is not possible to predict the impact on the Airport of the recent, potential and any future bankruptcies, liquidations, mergers or major restructurings of other airlines.

Further airline consolidation is possible and could change airline service patterns, particularly at the connecting hub airports of the merged airlines. The Airport cannot predict what impact, if any, such consolidations will have on airline traffic at the Airport.

Assumption or Rejection of Agreements. In the event of bankruptcy proceedings involving one or more of the Signatory Airlines or other air carriers, the debtor or its bankruptcy trustee must determine within a time period determined by the court whether to assume or reject the Airline Agreement or other Airport agreements. In the event of assumption, the debtor would be required to cure any prior defaults and to provide adequate assurance of future performance under the relevant agreements. Rejection of a lease or executory contract by any of the Signatory Airlines would give rise to an unsecured claim of the City for damages, the amount of which in the case of a lease is limited by the Bankruptcy Code. However, the costs of Terminal Building Area vacated as a result of a rejection of an Airline Agreement by a Signatory Airline in bankruptcy would be passed on to the remaining Signatory Airlines under their Airline Agreements. If the bankruptcy of one or more Signatory Airlines were to occur, there can be no assurance that the remaining Signatory Airlines would be able, individually or collectively, to meet their obligations under the Airline Agreements. See "THE AIRPORT SYSTEM – AIRPORT ACTIVITY AND SIGNATORY AIRLINES – Information Concerning the Signatory Airlines."

If contractual agreements with the airlines do not exist, rates and charges for use of the Airport System will be set by regulation of the City – currently, the Airport Rates and Charges Regulation.

Federal Funding Considerations

The City depends upon federal funding for the Airport not only in connection with grants and PFC authorizations but also because it is federal funding that provides for TSA, air traffic control and other FAA staffing and facilities. The FAA currently operates under the FAA Modernization and Reform Act of 2012, which was scheduled to expire on September 30, 2015, but has been extended and now expires March 31, 2018. Federal funding is also impacted by sequestration under the federal Budget Control Act of 2011. Except to the extent changed by Congress from time to time, sequestration is a multi-year process and could continue to affect FAA, TSA and Customs and Border Control budgets and staffing, which results in staffing shortages and furloughs and traffic delays at the Airport and nationwide. Some of the TSA funding shortages are being addressed by increasing the amount (and removing the cap) on the security fees on tickets, but no assurance can be given that such fees will be sufficient.

Changes in Law and Post Issuance Events

Legislative or administrative actions and court decisions, at either the federal or state level, could have an impact on the treatment of interest on the 2017 Bonds for federal or state income tax purposes, and thus on the value or marketability of the 2017 Bonds. This could result from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), or otherwise. On December 15, 2017, the House and Senate conferees released H.R. 1, the Tax Cuts and Jobs Act (the "Conference Bill") and the accompanying Conference Report. The Conference Bill provides, among other things, for the repeal of the alternative minimum tax imposed on corporations effective for tax years beginning after December 31, 2017. The Conference Bill must still be voted on by each Chamber of the U.S. Congress and signed by the President to become law. It is not possible to predict whether the Conference Bill will be enacted or any such other legislative or administrative actions or court decisions will occur or have an adverse impact on the federal or state income tax treatment of holders of the 2017 Bonds.

Federal Regulation Regarding Rates and Charges Disputes

The FAA Authorization Act of 1994 establishes that airline rates and charges set by airports be "reasonable" and mandates an expedited administrative process by which the Secretary of Transportation (the "Secretary") shall review rates and charges complaints. An affected air carrier may file a written complaint requesting a determination of the Secretary as to reasonableness within 60 days after such carrier receives written notice of the establishment or increase of such fee. During the pendency of the review, the airlines must pay the disputed portion of the fee to the airport under protest, subject to refund to the extent such fees are found to be unreasonable by the Secretary. The airport must obtain a letter of credit, surety bond or other suitable credit facility equal to the amount in dispute unless the airport and the complaining carriers agree otherwise. Application of these provisions could adversely impact the amount of airline rates and charges received by airports.

Limitations on Bondholders' Remedies

The rights and remedies of the Fiscal Agent and the Bondholders with respect to the 2017 Bonds are subject to various provisions of Chapter 9 of the United States Bankruptcy Code (the "Bankruptcy Code"), which permits, under certain circumstances, a political subdivision or public agency or instrumentality of a state to file a voluntary petition in bankruptcy in the nature of a plan for adjustment in the repayment of debts if, generally, the entity is insolvent or unable to meet its debts as they mature. Such a petition may be filed by a political subdivision (such as the City) only if the state legislature has specifically authorized (by description or by name) the entity to be a debtor under Chapter 9 of the Bankruptcy Code or a governmental officer or organization empowered by state law to give such authorization has done so. The Financially Distressed Municipalities Act, Act No. 1987-47 of the Commonwealth of Pennsylvania, approved July 10, 1987, amended in 1992 and now known as the Municipalities Financial Recovery Act, Act No. 1992-69 of the Commonwealth, approved June 30, 1992 ("Financial Recovery Act"), provides, among other things, for the restructuring of debt of a financially distressed municipality and the method by which such entities are permitted to apply for relief under the Bankruptcy Code. In addition, the Financial Recovery Act empowered the Department of Community Affairs of the Commonwealth (now the Department of Community and Economic Development) to declare certain municipalities' financially distressed upon the occurrence of certain events and the making of certain determinations by such Department.

With respect to the City, certain provisions of the Financial Recovery Act have been preempted by the Pennsylvania Intergovernmental Cooperation Authority Act for Cities of the First Class, Act No. 1991-6 of the Commonwealth, approved June 5, 1991 (the "PICA Act"). The provisions of the Financial Recovery Act relating to the City that were not preempted have been suspended with respect to the City by the PICA Act. The PICA Act prevents the City from filing a petition for relief under Chapter 9 of the Bankruptcy Code as long as PICA has outstanding any bonds issued pursuant to the PICA Act. As of June 30, 2017, PICA had bonds outstanding in the aggregate principal amount of $213,945,000 and the maturity of those bonds extends until June 30, 2026 in the absence of early redemption. If no such bonds were outstanding, the PICA Act requires approval in writing by the Governor of the Commonwealth for a filing under Chapter 9 by the City. If the provisions of the PICA Act relating to the authorization by the Governor for the City to file a petition under Chapter 9 of the Bankruptcy Code were invoked, such provisions could limit the enforcement of rights and remedies by holders of the 2017 Bonds and other Airport Revenue Bonds. Because the term of the 2017 Bonds extends beyond the latest maturity date of the bonds issued by PICA, there is a possibility that the City could file for bankruptcy protection under the Bankruptcy Code. Should the City ever file under Chapter 9 of the Bankruptcy Code, the rights and remedies of the holders of the 2017 Bonds and other Airport Revenue Bonds may be adversely affected.

The enforceability of the rights and remedies of the Fiscal Agent and the holders of Bonds may also be limited by other bankruptcy or insolvency or other laws now or hereafter in effect affecting the rights or remedies of creditors generally, or be subject to principles of equity, if equitable remedies are sought.

TAX MATTERS

Tax Exemption – Opinion of Co-Bond Counsel

The Internal Revenue Code of 1986, as amended (the "Code") contains provisions relating to the tax-exempt status of interest on obligations which apply to the 2017 Bonds. These provisions include, but are not limited to, requirements relating to the use and investment of the proceeds of the 2017 Bonds and the rebate of certain investment earnings derived from such proceeds to the United States Treasury Department on a periodic basis. These and other requirements of the Code must be met by the City subsequent to the issuance and delivery of the 2017 Bonds in order for interest thereon to be and remain excludable from gross income for purposes of federal income taxation. The City has covenanted to comply with such requirements. Under Treasury Regulation Section 1.150-1(c)(3), the City has the ability to treat bonds that would otherwise be treated as one issue as separate issues for certain purposes of the Code if each series could otherwise qualify as a tax-exempt bond issue. The 2017A Bonds and the 2017B Bonds are being treated as separate issues for certain purposes of the Code; that is, the 2017A Bonds are being treated as traditional governmental bonds and the 2017B Bonds are being treated as qualified airport private activity bonds. Under Treasury Regulation Section

1.150-1(c)(3), however, the 2017A Bonds are the 2017B Bonds may not be treated as separate issues for certain provisions of the Code, including those provisions relating to arbitrage and arbitrage rebate.

The effect of being treated as one issue for federal income tax purposes is that the failure to comply with the federal income tax law requirements for one issue that must be satisfied by one issue could cause the interest on the other issue to be includable in gross income of the holders of the other issue retroactive to the date of issuance of such issue.

In the opinion of Co-Bond Counsel, interest (including accrued original issue discount) on the 2017A Bonds is not includable in gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions. The opinion of Co-Bond Counsel is subject to the condition that the City complies with all applicable federal income tax law requirements that must be satisfied subsequent to the issuance of the 2017A Bonds in order that interest thereon continues to be excluded from gross income. Failure to comply with certain of such requirements could cause the interest on the 2017A Bonds to be so includable in gross income retroactive to the date of issuance of the 2017A Bonds. Additionally, as discussed in the preceding paragraph, failure to comply with certain of such requirements applicable to the 2017B Bonds could cause interest on the 2017A Bonds to be includable in gross income retroactive to the date of issuance of the 2017A Bonds. The City has covenanted to comply with all such requirements.

In the opinion of Co-Bond Counsel, interest on the 2017B Bonds is not includable in gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions, except for interest on any 2017B Bond during any period such 2017B Bond is held by a person who is a "substantial user" of the facilities financed or refinanced by the 2017B Bonds or a "related person" within the meaning of Section 147(a) of the Code. The opinion of Co-Bond Counsel is subject to the condition that the City complies with all applicable federal income tax law requirements that must be satisfied subsequent to the issuance of the 2017B Bonds in order that interest thereon continues to be excluded from gross income. Failure to comply with certain of such requirements could cause the interest on the 2017B Bonds to be so includable in gross income retroactive to the date of issuance of the 2017B Bonds. The City has covenanted to comply with all such requirements. Additionally, as discussed in the second preceding paragraph, failure to comply with certain of such requirements applicable to the 2017A Bonds could cause the interest on the 2017B Bonds to be includable in gross income retroactive to the date of issuance of the 2017B Bonds. The City has covenanted to comply with all such requirements.

Interest on the 2017A Bonds is not treated as an item of tax preference under Section 57 of the Code for purposes of the individual and corporate alternative minimum taxes; however, under the Code, to the extent that interest on the 2017A Bonds is a component of a corporate holder's "adjusted current earnings," a portion of that interest may be subject to the corporate alternative minimum tax. Interest on the 2017B Bonds is treated as an item of tax preference under Section 57 of the Code for purposes of the individual and corporate alternative minimum taxes. Co-Bond Counsel expresses no opinion regarding other federal tax consequences relating to the 2017 Bonds or the receipt of interest thereon. See discussion of "Alternative Minimum Tax," "Branch Profits Tax," "S Corporations with Passive Investment Income," "Social Security and Railroad Retirement Benefits," "Deduction for Interest Paid by Financial Institutions to

Purchase or Carry Tax-Exempt Obligations," and "Property or Casualty Insurance Company," "Reportable Payments and Back-up Withholding" and "Accounting Treatment of Original Issue Discount and Amortizable Bond Premium" below.

In the opinion of Co-Bond Counsel, under the laws of the Commonwealth of Pennsylvania as enacted and construed on the date hereof, the 2017 Bonds, and the interest thereon are free from taxation for state and local purposes within the Commonwealth of Pennsylvania, but such exemption does not extend to gift, estate, succession or inheritance taxes or any other taxes not levied or assessed directly on the 2017 Bonds or the interest thereon.

Alternative Minimum Tax

The Code includes, for purposes of the corporate alternative minimum tax, a preference item consisting of, generally, seventy-five percent (75%) of the excess of a corporation's "adjusted current earnings" over its "alternative minimum taxable income" (computed without regard to this particular preference item and the alternative tax net operating loss deduction). Thus, to the extent that tax-exempt interest (including interest on the 2017A Bonds) is a component of a corporate holders "adjusted current earnings," a portion of that interest may be subject to the alternative minimum tax.

Interest on the 2017B Bonds is treated as an item of tax preference under Section 57 of the Code for purposes of the individual and corporate alternative minimum taxes. For information relating to the federal tax reform legislation recently released by the committee on conference, see "Changes in Law and Post Issuance Events" herein.

Branch Profits Tax

Under the Code, foreign corporations engaged in a trade or business in the United States will be subject to a "branch profits tax" equal to thirty percent (30%) of the corporation's "dividend equivalent amount" for the taxable year. The term "dividend equivalent amount" includes interest on tax-exempt obligations.

S Corporations with Passive Investment Income

Section 1375 of the Code imposes a tax on the income of certain small business corporations for which an S Corporation election is in effect, and that have "passive investment income." For purposes of Section 1375 of the Code, the term "passive investment income" includes interest on the 2017 Bonds. This tax applies to an S Corporation for a taxable year if the S Corporation has Subchapter C earnings and profits at the close of the taxable year and has gross receipts, more than twenty-five percent (25%) of which are "passive investment income." Thus, interest on the 2017 Bonds may be subject to federal income taxation under Section 1375 of the Code if the requirements of that provision are met.

Social Security and Railroad Retirement Benefits

Under Section 86 of the Code, certain Social Security and Railroad Retirement benefits (the "Benefits") may be includable in gross income. The Code provides that interest on tax-exempt obligations (including interest on the 2017 Bonds) is included in the calculation of “modified adjusted gross income” in determining whether a portion of the Benefits received are to be includable in gross income of individuals.

Deduction for Interest Paid by Financial Institutions to Purchase or Carry Tax-Exempt Obligations

The Code, subject to limited exceptions, denies the interest deduction for indebtedness incurred or continued to purchase or carry tax-exempt obligations, such as the 2017 Bonds. With respect to banks, thrift institutions and other financial institutions, the denial to such institutions is one hundred percent (100%) for interest paid on funds allocable to the 2017 Bonds.

Property or Casualty Insurance Company

The Code also provides that a property or casualty insurance company may also incur a reduction, by a specified portion of its tax-exempt interest income, of its deduction for losses incurred.

Reportable Payments and Backup Withholding

Under 2006 amendments to the Internal Revenue Code, payments of interest on the 2017 Bonds will be reported to the Internal Revenue Service by the payor on the Form 1099 unless the Bondholder is an "exempt person" under Section 6049 of the Code. A Bondholder who is not an exempt person may be subject to "backup withholding" at a specified rate prescribed in the Code if the Bondholder does not file Form W-9 with the payor advising the payor of the Bondholder’s taxpayer identification number. Bondholders should consult their brokers regarding this matter.

The payor will report to the Bondholders and the Internal Revenue Service for each calendar year the amount of "reportable payments" during such year and the amount of tax withheld, if any, with respect to payments on the 2017 Bonds.

Accounting Treatment of Original Issue Discount and Amortizable Bond Premium

The 2017A Bonds maturing on July 1, 2034 through and including July 1, 2037 are herein referred to as the “Discount Bonds.” In the opinion of Bound Counsel, the difference between the initial public offering price of the Discount Bonds set forth on the inside cover page and the stated redemption price at maturity of each such 2017A Bond constitutes “original issue discount,” all or a portion of which will, on the disposition or payment of such Bond, be treated as tax-exempt interest for federal income tax purposes. Original issue discount will be apportioned to an owner of the Discount Bonds under a “constant interest method,” which utilizes a periodic compounding of accrued interest. If an owner of a Discount Bond who purchases it in the original offering at the initial public offering price owns that Discount Bond to maturity, that Bondholder will not realize taxable gain for federal income tax purposes upon payment of the Discount Bond at maturity. An owner of a Discount Bond who purchases it in the original offering at the initial public offering price and who later disposes of the Discount Bond prior to maturity will be deemed to have accrued tax-exempt income in a manner described above; amounts realized in excess of the sum of the original offering price of such Discount Bond and the amount of accrued original issue discount will be taxable gain.

Purchasers of Discount Bonds should consider possible state and local income, excise or franchise tax consequences arising from original issue discount on the Discount Bonds. Prospective purchasers of the Discount Bonds should consult their tax advisors regarding the Pennsylvania tax treatment of original issue discount.

The 2017 Bonds, other than the 2017A Bonds maturing on July 1, 2034 through and including July 1, 2037, are hereinafter in this subsection referred to as the "Premium Bonds." An amount equal to the excess of the initial public offering price of a Premium Bond set forth on the inside cover pages over its stated redemption price at maturity constitutes premium on such Premium Bond. A purchaser of a Premium Bond must amortize any premium over such Premium Bond's term using constant yield principles, based on the purchaser's yield to maturity. As premium is amortized, the purchaser's basis in such Premium Bond is reduced by a corresponding amount, resulting in an increase in the gain (or decrease in the loss) to be recognized for federal income tax purposes upon a sale or disposition of such Premium Bond prior to its maturity. Even though the purchaser's basis is reduced, no federal income tax deduction is allowed.

Purchasers of Premium Bonds, whether at the time of initial issuance or subsequent thereto, should consult their own tax advisors with respect to the determination and treatment of premium for federal income tax purposes and with respect to state and local tax consequences of owning such Premium Bonds.

LEGAL PROCEEDINGS

General

The City is involved in several claims and lawsuits arising in the ordinary course of operations of the Airport System. The City estimates that any liability assessed against the City, as a result of claims that are not covered by insurance or otherwise, would not materially and adversely affect the 2017 Bonds, the sources of payment and security for the 2017 Bonds or the financial condition or operations of the Airport System. There has been no litigation seeking to enjoin the issuance, sale or delivery of the 2017 Bonds.

No Litigation Opinion

Upon delivery of the 2017 Bonds, the City Solicitor will furnish an opinion, in form satisfactory to Co-Bond Counsel and to the Underwriters, to the effect that, among other things, except for litigation which in the opinion of the City Solicitor is without merit and except as disclosed in this Official Statement, there is no litigation or other legal proceeding pending in any court, or, to the knowledge of the Law Department after investigation, threatened in writing against the City, to restrain or enjoin the issuance, sale or delivery of the 2017 Bonds or in any way contesting the validity or enforceability of the 2017 Bonds.

UNDERWRITING

The 2017 Bonds are being purchased by the underwriters listed on the cover page of this Official Statement (the "Underwriters"), for which Merrill Lynch, Pierce, Fenner & Smith Incorporated, is acting as Representative (the "Representative"), at a purchase price of $792,614,129.40, which represents the principal amount of the 2017 Bonds, plus net original issue premium of $102,942,675.15, and less an underwriters' discount of $2,858,545.75. The Underwriters will purchase all of the 2017 Bonds if any 2017 Bonds are purchased. The obligation of the Underwriters to purchase the 2017 Bonds is subject to certain terms and conditions set forth in the purchase contract related to the 2017 Bonds.

Merrill Lynch, Pierce, Fenner & Smith Incorporated has provided the following information for inclusion in this Official Statement: The Representative and its respective affiliates are full-service financial institutions engaged in various activities, that may include securities trading, commercial and investment banking, municipal advisory, brokerage, and asset management. In the ordinary course of business, the Representative and its respective affiliates may actively trade debt and, if applicable, equity securities (or related derivative securities) and provide financial instruments (which may include bank loans, credit support or interest rate swaps). The Representative and its respective affiliates may engage in transactions for their own accounts involving the securities and instruments made the subject of this securities offering or other offering of the City. The Representative and its respective affiliates may also communicate independent investment recommendations, market color or trading ideas and publish independent research views in respect of this securities offering or other offerings of the City. The Representative and its respective affiliates may make a market in credit default swaps with respect to municipal securities in the future.

PNC Bank, N.A. currently has, and from time to time may have, banking or other credit relationships with the Airport. PNC Capital Markets LLC is acting as an Underwriter of the 2017 Bonds. PNC Capital Markets LLC and PNC Bank, N.A. are both wholly owned subsidiaries of the PNC Financial Services Group, Inc.

Jefferies LLC ("Jefferies") has entered into an agreement (the "Agreement") with E*TRADE Securities LLC ("E*TRADE") for the retail distribution of municipal securities. Pursuant to the Agreement, Jefferies will sell bonds to E*TRADE and will share a portion of its selling concession compensation with E*TRADE.

The initial public offering prices of the 2017 Bonds set forth on the inside cover pages of this Official Statement may be changed without notice by the Underwriters. The Underwriters may offer and sell 2017 Bonds to certain dealers (including dealers' deposition 2017 Bonds into investment trusts, certain of which may be sponsored or managed by the Underwriters) and others at prices lower that the offering prices set forth on the inside cover pages.

RATINGS

Moody's Investors Service, Inc. ("Moody's"), S&P Global Ratings ("S&P Global Ratings"), and Fitch Ratings ("Fitch") have assigned ratings to the 2017 Bonds, other than the Insured Bonds, of "A2" stable outlook, "A" stable outlook, and "A" stable outlook, respectively.

Moody's and S&P Global Ratings are expected to assign ratings to the Insured Bonds of "A2" and "AA", respectively, based upon the issuance of the Policy by AGM at the time of delivery of the Insured Bonds.

A rating, including any related outlook with respect to potential changes in such ratings, reflects only the view of the agency giving such rating and is not a recommendation to buy, sell or hold the 2017 Bonds. An explanation of the significance of any such rating may be obtained only from the rating agency furnishing the same. Such ratings may be changed at any time, and no assurance can be given that they will not be revised downward or withdrawn entirely by any of such rating agencies if, in the judgment of any of them, circumstances so warrant. Any such downward revision or withdrawal of any of such ratings may have an adverse effect on the market price or marketability of the 2017 Bonds.

CONSULTING ENGINEERS

Urban Engineers, Inc., Philadelphia, Pennsylvania ("Urban Engineers"), has prepared reports, each dated November 28, 2017 (the "Airport Report"), on the physical condition of the Airport in which Urban Engineers has concluded that "…[the Airport] is in good operating condition due to an acceptable maintenance program and continuing efforts to enhance the operation and infrastructure of the facility." Urban Engineers also prepared a report, dated November 28, 2017 (the "Northeast Airport Report"), on the physical condition of Northeast Airport in which Urban Engineers has concluded that "…the [Northeast Airport] facilities are in good operating condition." Copies of the Airport Report and the Northeast Airport Report are available from the Office of the Director of Finance, 13th Floor, Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102.

CO-FINANCIAL ADVISORS

Frasca & Associates, LLC and PFM Financial Advisors LLC have been retained by the City as Co-Financial Advisors in connection with the issuance of the 2017 Bonds and, in such capacity, have assisted the City in the preparation of Bond-related documents.

Although the Co-Financial Advisors have read and participated in the preparation of this Official Statement, they have not independently verified any of the information set forth herein. The information contained in this Official Statement has been obtained primarily from the City's records and from other sources that are believed to be reliable, including financial records of the City, reports of consultants and other entities that may be subject to interpretation. No guarantee is made as to the accuracy or completeness of any such information. No person, therefore, is entitled to rely upon the participation of the Co-Financial Advisors as an implicit or explicit expression of opinion as to the completeness and accuracy of the information contained in this Official Statement.

MARKET ANALYSIS AND FINANCIAL PROJECTIONS

The report set forth in APPENDIX I was prepared by Ricondo & Associates, Inc. ("Ricondo") and AVK Consulting, Inc. ("AVK") (collectively, the "Consultants") in connection with the issuance of the 2017 Bonds. Such report is set forth herein in reliance upon the knowledge and experience of such firms as airport consultants. The Consultants have consented to the inclusion of their report herein.

See "CERTAIN INVESTMENT CONSIDERATIONS – Market Analysis and Financial Projections" herein.

APPROVAL OF LEGALITY

Certain legal matters incident to the authorization, issuance and sale of the 2017 Bonds will be passed upon by Saul Ewing Arnstein & Lehr LLP and Andre C. Dasent, P.C., each of Philadelphia, Pennsylvania, Co-Bond Counsel. The proposed form of such approving opinion is included herein as APPENDIX VI. Certain legal matters incident to the disclosure relating to the 2017 Bonds will be passed upon by Nixon Peabody LLP, New York, New York, and Turner Law, P.C., Philadelphia, Pennsylvania, Co-Disclosure Counsel. Hawkins Delafield & Wood LLP, as General Fund Disclosure Counsel to the City, will be delivering an opinion to the City and the Underwriters with respect to Appendix III. Certain legal matters will be passed upon for the City of Philadelphia by the City Solicitor. Certain legal matters will be passed upon for the Underwriters by Eckert Seamans Cherin & Mellott and Ahmad Zaffarese, LLC, each of Philadelphia, Pennsylvania, Co-Counsel to the Underwriters.

RELATIONSHIPS OF CERTAIN PARTIES

The firms serving as Co-Bond Counsel, Co-Disclosure Counsel and Co-Counsel to the Underwriters have each, in the past, provided legal services to the City and periodically (including currently) represent the City on matters unrelated to the issuance and sale of the 2017 Bonds.

ADDITIONAL INFORMATION

It is the practice of the City in connection with the issuance and sale of each issue of the City's bonds or notes, to require in its contract with its underwriters that the underwriters deposit the Official Statement of the City relating to such issue of bonds or notes with a nationally recognized municipal securities information repository (a "Repository") as soon as practicable after delivery of such Official Statement. It is also the City's practice to file its Comprehensive Annual Financial Report ("CAFR"), which contains the audited combined financial statements of the City, with a Repository as soon as practicable after delivery of such report. Since July 1, 2009, pursuant to Securities and Exchange Commission Rule 15c2-12, all such filings must be made with the Municipal Securities Rulemaking Board (MSRB) through the MSRB's Electronic Municipal Market Access (EMMA) system. The CAFR for the City's fiscal year ended June 30, 2016 was filed with EMMA on February 24, 2017. The CAFR is prepared by the Office of the Director of Finance of the City in conformance with guidelines adopted by the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants audit guide, Audits of State and Local Government Units. Upon written request to the Office of the Director of Finance and payment of the costs of duplication and mailing, the City will make available copies of the CAFR for the fiscal year ended June 30, 2016. Such a request should be addressed to: Office of the Director of Finance, Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, PA 19102. A copy of the financial statements of the City for the fiscal year ended June 30, 2016, may be downloaded at http://www.phila.gov/investor. The CAFR contains pertinent information with respect to the Division of Aviation. The City also expects to provide financial and other information as to the City from time to time to Moody's, S&P and Fitch in connection with securities ratings issued by those rating agencies for bonds or notes of the City.

The foregoing statement as to filing or furnishing of additional information reflects the City's current practices, but is not a contractual obligation to the holders of the City's bonds or notes.

CONTINUING DISCLOSURE AGREEMENT

In order to assist the Underwriters in complying with the requirements of Section (b)(5) of Rule 15c2-12 promulgated by the Securities and Exchange Commission, the City will enter into a continuing disclosure undertaking (the "Continuing Disclosure Agreement") for the benefit of the owners of the 2017 Bonds in substantially the form set forth in APPENDIX VII. See APPENDIX VII — "FORM OF CONTINUING DISCLOSURE AGREEMENT" for the detailed provisions of the proposed form of Continuing Disclosure Agreement.

At this time, only the City and American Airlines (which is a party to the Airline Agreement and pursuant thereto currently accounts for at least 20% of Project Revenues, as defined in the General Ordinance for the past two fiscal years) are "obligated persons" for annual reporting purposes under the criteria specified in the Continuing Disclosure Agreement. Pursuant to the Continuing Disclosure Agreement, American Airlines has agreed to make available, and the City agrees to use its best efforts to require any future obligated persons to make available financial information and operating data on a timely basis with respect to themselves as required by the Rule. American Airlines will acknowledge the Continuing Disclosure Agreement and agree to make available such information for as long as it remains an obligated person under the criteria specified in the Continuing Disclosure Agreement. Upon expiration of its Airline Agreement, in the absence of another contractual arrangement between the City and American Airlines, American Airlines may cease to be an obligated person under Rule 15c2-12. The City and American Airlines are in material compliance with all of their written undertakings to provide continuing disclosure with respect to airport revenue bonds issued within the last five years pursuant to the General Ordinance as supplemented through the Sixteenth Supplemental Ordinance.

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CERTAIN REFERENCES

All summaries of the Act, the General Ordinance, the Fifteenth Supplemental Ordinance, the Sixteenth Supplemental Ordinance, the Airline Agreements contained in this Official Statement, including the Appendices hereto, are only brief outlines of certain provisions thereof and do not constitute complete statements of such documents or provisions. Reference is made hereby to the complete documents for the complete terms and provisions thereof. Copies of these documents are available from the Office of the Director of Finance, 13th Floor, Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102.

All quotations from and summaries and explanations of the Constitution and laws of the Commonwealth and Ordinances of the City contained herein do not purport to be complete and are qualified by reference to the official compilations thereof in their entireties and all references to the 2017 Bonds are qualified by reference to the complete, definitive forms of the 2017 Bonds. All capitalized terms used herein which are not defined herein or in APPENDIX IV shall have the meanings ascribed to them in the Act and the General Ordinance. See APPENDIX IV — "SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS."

Any statements made in this Official Statement involving matters of opinion, projections or estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized.

The Appendices are integral parts of this Official Statement and must be read together with all parts of this Official Statement.

This Official Statement has been duly approved, executed and delivered by the following officer on behalf of the City.

CITY OF PHILADELPHIA

By: /s/ Rob Dubow
Rob Dubow, Director of Finance

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APPENDIX I

REPORT OF THE AIRPORT CONSULTANT

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December 6, 2017

Appendix I

Report of the Airport Consultant

The City of Philadelphia, Pennsylvania
Philadelphia International Airport
Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT)
Airport Revenue and Refunding Bonds, Series 2017B (AMT)

Prepared by:

AVK Consulting Inc.
Post Office Box 1766
Carmel Valley, California 93924
510-530-5381

RICONDO
20 N Clark Street, Suite 1500
Chicago, IL 60602
312-606-0611

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December 6, 2017

Ms. Rochelle Cameron
Chief Executive Officer
The City of Philadelphia, Department of Commerce
Division of Aviation Executive Offices
3rd Floor, Terminal D/E
Philadelphia, Pennsylvania 19153

RE: The City of Philadelphia, Pennsylvania
Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT)
Airport Revenue and Refunding Bonds, Series 2017B (AMT)

Dear Ms. Cameron:

Ricondo & Associates, Inc. (Ricondo) and AVK Consulting, Inc. (AVK) (Ricondo and AVK are collectively referred to herein as the "Consultants") are pleased to submit this Report of the Airport Consultant (the Report) at the request of the City of Philadelphia, Pennsylvania (the City). This Report is being prepared for inclusion as Appendix I in the Official Statement for the issuance of the City's Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) and Airport Revenue and Refunding Bonds Series 2017B (AMT) (referred to collectively herein as the 2017 Bonds), as described in the Report. The 2017 Bonds are to be issued pursuant to The First Class City Revenue Bond Act of the Commonwealth of Pennsylvania, as well as the City's Amended and Restated General Airport Revenue Bond Ordinance, approved June 16, 1995, as amended and supplemented (the Original Ordinance) and as further supplemented and amended by, the Fifteenth Supplemental Ordinance, approved by the Mayor on February 8, 2017 (the Fifteenth Supplemental Ordinance) and the Sixteenth Supplemental Ordinance, approved by the Mayor on May 17, 2017 (the Sixteenth Supplemental Ordinance). The Original Ordinance together with the Fifteenth and Sixteenth Supplemental Ordinances are collectively referred to as the General Ordinance. U.S. Bank National Association (U.S. Bank or Fiscal Agent) is serving as the Fiscal Agent and Sinking Fund Depository for the 2017 Bonds. Pursuant to Section 5.04 of the General Ordinance, the Report was prepared by nationally recognized independent consultants having broad experience in the operation of airport systems of the magnitude and scope of the Airport System (Philadelphia International Airport and Northeast Philadelphia Airport).

The City has pledged under the General Ordinance for the security and payment of the 2017 Bonds and granted to the Bondholders a lien and security interest in all Project Revenues and other amounts available for debt service, which are to be payable from amounts that may be withdrawn from the Aviation Fund (including the Parity Sinking Fund Reserve Account) created under the General Ordinance, as described in the Report and referred to herein as "Pledged Amounts." All capitalized terms are used as defined in the General Ordinance or the Official Statement for the 2017 Bonds, unless otherwise defined in this Report.

The City plans to use the proceeds from the sale of the 2017 Bonds to:

1) refund, on a current basis, certain outstanding commercial paper notes;
2) pay the costs of the 2017 Projects, as defined in the Report;
3) refund, on a current basis, the Series 2007A, Series 2007B, and Series 2009A Bonds;
4) fund the related Sinking Fund Reserve Requirement for the outstanding Bonds, including the 2017 Bonds;
5) fund capitalized interest on a portion of the 2017 Bonds; and
6) pay costs and expenses relating to the issuance of the 2017 Bonds.

This Report describes the analyses undertaken by the Consultants to demonstrate the ability of the City to comply with the requirements of the General Ordinance in Fiscal Year ending June 30th (FY) 2017 and FY 2018 through FY 2023 (the Projection Period) based on the assumptions regarding the proposed issuance of the 2017 Bonds adopted by the City through consultation with its financial advisors, underwriters, and the financing team.[1] In developing our analyses, the Consultants reviewed historical trends and developed projections based on the assumptions set forth in the Report, which were reviewed by the City, regarding the ability of the Air Trade Area (as defined in the Report) to generate demand for airline service at Philadelphia International Airport (the Airport), the amount of airline service and passenger activity at the Airport, and the generation of Pledged Amounts from the Airport System through the Projection Period.

The Report is organized as follows:

- Summary of Findings
- Chapter 1: The 2017 Bonds
- Chapter 2: Airport Facilities, the Capital Program, and the 2017 Projects
- Chapter 3: Demographic and Economic Analysis
- Chapter 4: Air Traffic and Aviation Demand
- Chapter 5: Financial Analysis

1 For the purposes of this analysis, the financial projections presented herein assume a continuation of the current rate-setting methodology and existing thresholds established in the General Ordinance through the Projection Period.

On the basis of the analyses set forth in the Report, the Consultants are of the opinion that the Pledged Amounts projected to be generated and available each year during the Projection Period are expected to be sufficient to comply with the Rate Covenant established in Section 5.01 of the General Ordinance, and that the resulting projected airline costs should remain reasonable. As required under Section 5.04 of the General Ordinance, this Report demonstrates that the Rate Covenant (1) was met for the Fiscal Year immediately preceding the date of the Report (or for any 12 full consecutive months during the 18-month period preceding the delivery of the Report and (2) is estimated to be met for each of the five Fiscal Years immediately following the issuance of the 2017 Bonds. This Report also documents that no deficiency exists in the Sinking Fund Reserve Account. These requirements of Section 5.04 of the General Ordinance are referred to as the Additional Bonds Test. Although summary information is provided in this letter, a complete understanding of the justification for our opinion cannot be achieved without reading the Report in its entirety.

Founded in 1989, Ricondo is a full-service aviation consulting firm providing airport physical and financial planning services to airport owners and operators, airlines, and federal and state agencies. Ricondo has prepared Reports of the Airport Consultant in support of more than $32 billion of airport-related revenue bonds since 1996. AVK is an aviation consulting firm providing financial planning services to airport owners and operators. AVK has prepared Reports of the Airport Consultant in support of over $5 billion airport-related revenue bonds since 1994. The Consultants are not registered as a municipal advisor under Section 15B of the Securities Exchange Act of 1934. The Consultants are not acting as a municipal advisor and have not been engaged by the City to provide advice with respect to the structure, timing, terms, or other similar matters regarding the issuance of municipal securities. The assumptions about such matters included in the Report were provided by the City or the City's financial advisors or underwriters, or, with the City's approval, were derived from general, publicly available data approved by the City. The Consultants owe no fiduciary duty to the City. We recommend that the City discuss the information and analyses contained in the Report with internal and external advisors and experts that the City deems appropriate before taking any action. Any opinions, assumptions, views, or information contained herein are not intended to be, and do not constitute, "advice" within the meaning set forth in Section 15B of the Securities Exchange Act of 1934.

The techniques and methodologies used by the Consultants in preparing the Report and the analyses described therein are consistent with industry practices for similar studies in connection with the issuance of airport revenue bonds. While the Consultants believe that the approach and assumptions used are reasonable, some assumptions regarding future trends and events discussed in the Report, including, but not limited to, the implementation schedule and the projections of passenger-related activity and financial performance, may not materialize. Therefore, actual performance will likely differ from the projections set forth in the Report and the variations may be material. In developing our analyses, the Consultants used information from various sources, including the City, the underwriters, the financial advisors, federal and local governmental agencies, and independent providers of economic and aviation industry data, as identified in the notes accompanying the related tables and exhibits in the Report. The Consultants believe these sources to be reliable, but have not audited the data and do not warrant their accuracy. The analyses presented are based on conditions known as of the date of this letter. The Consultants have no obligation to update the Report on an ongoing basis.

Sincerely,

Ricondo & Associates, Inc.

RICONDO & ASSOCIATES, INC.

AVK Consulting

AVK CONSULTING, INC.

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Summary of Findings

The City of Philadelphia, Pennsylvania (the City) engaged Ricondo & Associates, Inc. (Ricondo) and AVK Consulting, Inc. (AVK) (Ricondo and AVK are collectively referred to herein as the "Consultants") to prepare this Report of the Airport Consultant (the Report) to provide an independent assessment of the City's ability to meet its obligations regarding the issuance of the City's Airport Revenue and Refunding Bonds Series 2017A (Non-AMT) and Airport Revenue and Refunding Bonds Series 2017B (AMT), which are referred to collectively herein as the 2017 Bonds. [1]

Unless otherwise defined herein, all capitalized terms in this Report are used as defined in the Official Statement for the issuance of the 2017 Bonds and/or the General Ordinance.[2]

On the basis of the analyses described in this Report, the Consultants are of the opinion that all Project Revenues and other amounts available for debt service, which are to be payable from amounts that may be withdrawn from the Aviation Fund (including the Parity Sinking Fund Reserve Account) created under the General Ordinance, as described in the Report and herein after referred to as "Pledged Amounts," projected to be generated and available each year of the Projection Period (Fiscal Year[3] [FY] 2018- FY 2023) are expected to be sufficient to comply with the Rate Covenant established in Section 5.01 of the General Ordinance, and that the resulting projected airline costs should remain reasonable. The following summary provides key information and findings that support this opinion. Additional supporting information is provided in Chapters 1 through 5 of this Report.

1 The Consultants prepared this Report for the stated purpose as expressly set forth herein and for the sole use of the City and its intended recipients. The techniques and methodologies used in preparing the analyses described in this document are consistent with industry practices at the time of preparation and this Report should be read in its entirety for an understanding of the analyses, underlying assumptions, and opinions presented. Neither of the Consultants are registered as a municipal advisor under Section 15B of the Securities Exchange Act of 1934 and they do not provide financial advisory services within the meaning of such Act.

2 The General Ordinance in this Report collectively refers to the Amended and Restated General Airport Revenue Bond Ordinance, approved June 16, 1995, as amended and supplemented (the Original Ordinance) and as further supplemented and amended by, the Fifteenth Supplemental Ordinance, approved by the Mayor on February 8, 2017 (the Fifteenth Supplemental Ordinance) and the Sixteenth Supplemental Ordinance, approved by the Major on May 17, 2017 (the Sixteenth Ordinance).

3 The Airport's Fiscal Year begins on July 1st and ends on June 30th.

The 2017 Bonds

The City will use the proceeds from the sale of the 2017 Bonds to:

(i) refund, on a current basis, certain outstanding commercial paper notes;
(ii) pay the costs of the 2017 Projects, as described in this Report;
(iii) refund, on a current basis, the Series 2007A, the Series 2007B, and Series 2009A Bonds;
(iv) fund the related Sinking Fund Reserve Requirement for the outstanding Bonds, including the 2017 Bonds;
(v) fund capitalized interest on a portion of the 2017 Airport Revenue Bonds, and;
(vi) pay costs and expenses relating to the issuance of the 2017 Bonds.

Pursuant to the terms of the General Ordinance, the 2017 Bonds are to be secured by a pledge of Pledged Amounts, meaning, generally, all amounts received or receivable, directly or indirectly, by the City for the use and operation of the Airport System (Philadelphia International Airport and Northeast Philadelphia Airport), on a parity basis with the City's Outstanding Airport Revenue Bonds.

Additional information on the 2017 Bonds is provided in Chapter 1 of this Report.

Table S-1 presents a summary of the tax status and security for each series of the 2017 Bonds.

Table S-1: Estimated Uses of Proceeds from the Sale of the 2017 Bonds

	SERIES 2017A (NON-AMT)	SERIES 2017B (AMT)	TOTAL
Sources			
Par Amount of 2017 Bonds	$140,855,000	$580,175,000	$721,030,000
Original Issue Premium	16,718,000	61,622,000	78,340,000
Total	**$157,573,000**	**$641,797,000**	**$799,370,000**
Uses			
Deposit to the 2017 Projects Construction Fund	$28,939,000	$305,123,000	$334,062,000
Commercial Paper Takeout	50,147,000	75,791,000	125,938,000
Escrow Deposit	62,133,000	164,519,000	226,652,000
Capitalized Interest Deposit	2,255,000	38,297,000	40,552,000
Sinking Fund Reserve Deposit	13,100,000	53,956,000	67,056,000
Cost of Issuance[1/]	999,000	4,111,000	5,110,000
Total	**$157,573,000**	**$641,797,000**	**$799,370,000**

NOTE:

1/ Includes Underwriters' Discount and other costs of issuance.

SOURCE: Frasca & Associates, November 2017.
PREPARED BY: AVK Consulting, Inc. November 2017.

Airport Facilities, the Capital Program, and the 2017 Projects

The Philadelphia International Airport (the Airport), located approximately seven miles southwest of downtown Philadelphia, is the only major commercial-service airport serving Philadelphia and the surrounding region. The Airport has four active runways and is able to accommodate Airplane Design Group (ADG) VI aircraft.[4] The terminal area includes seven terminal buildings with a total of 126 gates serving domestic and international flights.[5] Various cargo-related facilities are located at the Airport including a United Parcel Service (UPS) facility that serves the East Coast. The Airport's airfield, terminal area, and other areas are described in Chapter 2 of this Report.

The City maintains a capital plan that addresses airport development needs as well as on-going repair and maintenance of existing facilities. This capital plan includes a shift from the prior Capacity Enhancement Program (CEP) to the Capital Development Program (CDP).

In January 2011, the Federal Aviation Administration (FAA) approved the CEP for the Airport, a program with the purpose of enhancing airfield capacity to address delays at the Airport. At that time, the Airport had been long identified by the FAA as one of the airports contributing to delays throughout the National Airspace System (NAS).[6] The CEP was based on the Airport's Master Plan and included projects addressing runway length, airfield geometry, runway capacity, in addition to expansion and reconfiguration of the existing terminal complex.

In September 2011, the FAA awarded a $466.5 million Letter of Intent (LOI) to provide some funding for airfield elements of the CEP. From 2007 through 2017, improvements to air traffic control were implemented by the FAA and some airfield improvements were completed by the Airport. These improvements, in conjunction with a decrease in operational activity during this same period (due in part to airline changes to their aircraft fleets and increase to average seats per operation), resulted in reduced aircraft movements and a reduction in delays at the Airport. As a result, the Airport and Airlines priorities shifted from airfield capacity and delay projects, such as the new runway, and focused instead on the terminal, gate capacity, landside, and cargo development. Additionally, airfield improvement priorities were reassessed by the Airlines, Airport, and the FAA.

In 2017, the Airport and the FAA agreed to close the LOI, which resulted in the suspension of FAA's Record of Decision and a formal closure notice posted by the FAA in the Federal Register in October 2017. This is anticipated to allow the Airport to focus FAA Entitlement and future Discretionary Grant funding for other airfield improvements rather than projects associated with the new runway. The Airport Master Plan, which includes the new runway project, is still valid and the Airport intends to preserve the ability to construct the new runway and other projects when the operational needs warrant it.

The shift in capital priorities to terminal, landside and cargo development, along with reprioritized airfield improvements, has resulted in the Airport implementing a revised capital plan that incorporates terminal,

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4 ADG is a FAA-defined classification of aircraft types that has six groups based on aircraft wingspan and tail height. ADG VI is the largest group of aircraft based on the FAA's classifications.

5 Gates A1, C16, and F10 are used for shuttle bus services and have no jet bridges.

6 FAA Record of Decision for Capacity Enhancement Program at Philadelphia International Airport, December 2010, Page 1.

landside and cargo projects identified in the Master Plan, in addition to near-term capital facility needs, including on-going rehabilitation and repair projects.

Under the Airport-Airline Use and Lease Agreement (the Airline Agreement), the Airlines have approved approximately $2.4 billion in capital development projects, of which approximately $370.1 million have been completed. The CDP includes approximately $2.0 billion of airline approved projects remaining to be completed, which incorporate long-term development projects and on-going rehabilitation and repair projects that generally address the Airport's capital needs. The primary focus of the CDP is for the terminal development and rehabilitation, airfield improvements and pavement rehabilitation, apron improvements, land acquisition, ground transportation projects, security and information technology enhancements, support facilities, and improvements at the Northeast Philadelphia Airport (Northeast Airport). The Airport continues to work with the Airlines to evaluate operational needs at the Airport and assess the timing and scope of projects. The CDP will continue to evolve as adjustments are made.

Additional information on the Airport's existing facilities and ongoing capital program, including the CDP, and 2017 Projects, is provided in Chapter 2 of this Report.

Demographic and Economic Analysis

The demand for air transportation is, to a large degree, dependent upon the demographic and economic characteristics of the geographical area served by an airport, commonly referred to as an airport's air trade area. This relationship is particularly true for origin and destination (O&D) passenger traffic, which accounted for approximately 66.7 percent of demand at the Airport in CY 2016 (with connecting passengers accounting for the remaining 33.3 percent). Demand for airline service at the Airport, therefore, is influenced by local demographic and economic characteristics, along with individual airline decisions regarding service in support of their connecting activity.

The geographical area served by the Airport (the Air Trade Area), which for the purposes of this Report is defined as the Philadelphia-Camden-Wilmington, Pennsylvania-New Jersey-Delaware-Maryland Metropolitan Statistical Area (Philadelphia MSA), has a large, diverse economic base that supports business and leisure travel. Projected economic variables indicate that the Air Trade Area will remain a destination that attracts both business and tourist visitors, which positively affects the demand for future inbound airline service. Projected Air Trade Area economic variables further support the continued growth in numbers of local outbound passengers. **Table S-2** presents selected Calendar Year (CY) 2016 and projected CY 2023 economic variables for the Air Trade Area and the United States, as projected by Woods & Poole Economics, Inc., an independent economic research firm.

Due to the concentration of large hospital systems and universities in the Air Trade Area, the education and health services sector is a major employer and significant contributor to the local economy. Employment in the education and health services, professional and business services, financial activities, and other services sectors combined represent 49.3 percent of total Air Trade Area employment, which is 10.0 percentage points higher than employment in those four sectors in the United States as a whole.

Additional information on the demographic and economic characteristics of the Air Trade Area is provided in Chapter 3.

Table S-2: Projected Select Economic Variables (CY 2016 and CY 2023)

VARIABLE 1/	CY 2016	CY 2023	CAGR 2/ CY 2016–CY 2023
Air Trade Area Population	6,093,548	6,291,877	0.5%
United States Population	324,160,750	345,864,633	0.9%
Air Trade Area Total Personal Income ($ billion)	$321.61	$371.65	2.1%
United States Total Personal Income ($ billion)	$14,469.64	$17,128.01	2.4%
Air Trade Area per Capita Personal Income	$52,778	$59,068	1.6%
United States per Capita Personal Income	$44,637	$49,522	1.5%
Air Trade Area Gross Regional Product ($ billion)	$369.16	$419.88	1.9%
United States Gross Domestic Product ($ billion)	$16,923.96	$19,622.54	2.1%
Air Trade Area per Capita Gross Regional Product	$60,583	$66,733	1.4%
United States per Capita Gross Domestic Product	$52,209	$56,735	1.2%
Air Trade Area Total Employment (jobs) 3/	3,688,597	3,988,296	1.1%
United States Total Employment (jobs) 3/	193,022,608	212,627,009	1.4%

NOTES:

1/ Monetary amounts are in 2009 U.S. dollars.

2/ CAGR = Compound Annual Growth Rate

3/ Employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

SOURCE: Woods & Poole Economics, Inc., *2017 Complete Economic and Demographic Data Source*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

Air Traffic and Aviation Demand

Philadelphia's prime geographic location on the East Coast and its large local O&D market make the Airport a natural transatlantic gateway and attractive location for a major airline hub. The Airport's competitive position for airline service is further strengthened by limited local airport competition and a well-developed cargo hub. American Airlines (American), the world's busiest airline in terms of total operating seat capacity, operates a major connecting hub at the Airport. American's use of the Airport as a hub is described in Section 4.5 of this Report.

The Airport ranked 19th in the nation in terms of total passengers (enplaned and deplaned) and domestic O&D passengers in CY 2016 and 18th in terms of total cargo weight handled.[7] Approximately 29.6 million passengers were enplaned and deplaned at the Airport in FY 2017, a decrease of 5.6 percent from the previous year. This decrease is largely attributable to American's restructuring of its hub operations that was implemented in first calendar quarter of 2017 and resulted in the elimination of two of the airline's eight connecting banks.

7 Source: 2015 ACI-NA *North American Airport Traffic Summary*.

As of September 2017, 21 U.S.-flag airlines are scheduled to provided passenger service at the Airport in CY 2017, including five legacy/mainline airlines, four low-cost airlines, and 12 regional airlines providing service for various legacy/mainline airlines. An additional five foreign-flag airlines and two all-cargo airlines are scheduled to provide services at the Airport in CY 2017, including UPS, which operates a major cargo hub at the Airport. American (inclusive of its affiliates) was the largest airline serving the Airport, accounting for 70.0 percent of total enplaned passengers in FY 2017, followed by Southwest Airlines with 7.8 percent and Delta Air Lines with 7.0 percent.

Between FY 2008 and FY 2017, the total number of enplaned passengers at the Airport decreased at a compound annual growth rate of 2.7 percent. Passenger enplanements are forecasted to increase at a compound annual growth rate of 1.0 percent from the base year of FY 2017 through FY 2023. Enplaned passenger growth is expected during the Projection Period as American, other legacy carriers, low-cost-carriers, and new entrants increase seat capacity to accommodate growing demand within the Air Trade Area. Growth will also be supported by American, which has recently restructured its connecting bank structure to further support the positive financial and operational performance of the carrier's hub at the Airport. American plans to expand its service from the Airport, launching service to four new domestic destinations and two new transatlantic destinations in 2018. Additionally, Aer Lingus will launch service to Dublin, Ireland in 2018.

Additional information on air traffic and aviation demand at the Airport and in the United States, as well as a review of the Airport's role within American's route network is provided in Chapter 4 of this Report.

Financial Analysis

AVK completed an analysis that demonstrates the City's ability through the Airline Agreement to meet the requirements of the General Ordinance in each year of the Projection Period.

The Airline Agreement expires on June 30, 2020, but with two one-year renewal options, could extend to June 30, 2022. For the purpose of the financial analysis in this Report, the existing residual rate-setting methodology defined in the Airline Agreement is assumed to continue throughout the Projection Period. Even though a new agreement may contain a different rate-setting methodology, the City's covenants with Bondholders to impose, charge, and recognize revenues sufficient to meet the Rate Covenant of the General Ordinance. Based on the financial analysis in Chapter 5 of this Report, the Consultants are of the opinion that Amounts Available for Debt Service generated by the Airport System each year of the Projection Period are expected to be sufficient to comply with the Additional Bonds Test and the Rate Covenant established in the General Ordinance.

The Debt Service included in the financial analysis reflects debt service on outstanding Bonds, short-term commercial paper notes, a short-term taxable direct loan, the 2017 Bonds, and future Bonds necessary to fund the approved CDP described in Chapter 2 of this Report.

Results of the financial analysis are, as follows:

- Operating Expenses are projected to increase to approximately $308.3 in FY 2023, representing a compound annual growth rate of 2.8 percent between FY 2018 and FY 2023. This increase is based on the type of expenses anticipated and expectations of future inflation rates (assumed to be 2.0 percent annually).

- Non-Airline Revenues are projected to increase from approximately $131.2 million in FY 2018 to approximately $146.8 million in FY 2023, which represents a compound annual growth rate of 2.3 percent. Non-Airline revenues include concessions, including automobile parking, rental cars, and in - terminal concessions. These revenues are discussed in Section 5.3.1 of this Report.
- Debt Service Requirements (including debt service on the 2017 Bonds and projected debt service on future bonds necessary to fund the CDP through the Projection Period), net of capitalized interest and interest earnings available on Sinking Fund Reserves, is projected to be approximately $127.9 million in FY 2018, then projected to increase to a peak of approximately $180.9 million in FY 2022, and then decrease to approximately $180.0 million in FY 2023.
- The Airline cost per enplanement (CPE) at the Airport is estimated to be $14.97 in FY 2018 and is projected to increase to $18.56 in FY 2023 (which equates to approximately $16.81 in 2018 dollars).

The projected Airline Revenues are evaluated in this analysis to be reasonable based on the expectation that these revenues will not significantly deter forecasted demand for air traffic at the Airport.

Table S-3 presents the Debt Service coverage ratio for actual FY 2017 and projected FY 2018 through FY 2023. As contained in the General Ordinance:

> The City covenants…. [that it will] impose, charge and recognize revenues in each Fiscal Year such rentals, charges, and fees as shall, together with that portion of Aviation Operating Fund balance attributable to Amounts Available for Debt Service and carried forward at the beginning of such Fiscal Year and together will all other Amounts Available for Debt Service to be received in such Fiscal Year, equal to not less than the greater of:
>
> (1) The sum of:
>
> (i) all Net Operating Expenses payable during such Fiscal Year;
> (ii) 150% of the amount required to pay the Debt Service Requirements during such Fiscal Year;
> (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such Fiscal Year; and
> (iv) the amount, if any, required to be paid into the Renewal Fund during such Fiscal Year; or
>
> (2) the sum of:
>
> (i) all Operating Expenses payable during such Fiscal Year; and
> (ii) (A) all Debt Service Requirements during such Fiscal Year; (B) all debt service requirements during such Fiscal Year in respect of all outstanding General Obligation Bonds and NSS General Obligation Bonds issued for improvements to the Airport System; (C) all debt service requirements during such Fiscal Year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service; (D) all amounts required to repay loans among funds made pursuant to Section 4.05(c); (E) the amount, if any, required to be paid into the Sinking Fund Reserve Account or Renewal Fund during such Fiscal Year; and (F) all amounts required to be paid under Exchange Agreements.

Table S-3: Projected Debt Service Coverage

For Fiscal Year Ending June 30

		ACTUAL [1/]	BUDGET [2/]	PROJECTED [3/]				
		2017	2018	2019	2020	2021	2022	2023
Pledged Amounts Available for Debt Service								
Airline Revenues [4/]		$228,175,169	$247,765,000	$248,416,000	$256,249,000	$292,391,000	$299,454,000	$304,305,000
Non-Airline Revenues		133,889,925	131,225,000	143,040,000	141,773,000	149,814,000	147,728,000	146,808,000
Existing Pledged PFC Revenues [5/]		33,692,950	31,202,000	31,189,000	31,200,000	31,218,000	31,231,000	31,237,000
Future Pledged PFC Revenues [6/]		-	-	-	5,000,000	15,000,000	15,000,000	15,000,000
Other amounts available for Debt Service [7/]		87,875,140	106,442,000	121,914,000	137,119,000	151,198,000	166,782,000	178,690,000
Total Amounts Available for Debt Service	[A]	$483,633,184	$516,634,000	$544,559,000	$571,341,000	$639,621,000	$660,195,000	$676,040,000
Net Operating Expenses	[B]	$136,747,633	$148,747,000	$152,856,000	$156,865,000	$160,994,000	$165,247,000	$169,627,000
Interdepartmental Charges		116,753,148	120,250,000	121,802,000	125,809,000	129,952,000	134,235,000	138,662,000
	[C]	$253,500,781	$268,997,000	$274,658,000	$282,674,000	$290,946,000	$299,482,000	$308,289,000
Funds available for Revenue Bond debt service coverage								
Test 1	[A - B = D]	$346,885,551	$367,887,000	$391,703,000	$414,476,000	$478,627,000	$494,948,000	$506,413,000
Test 2	[A - C = E]	230,132,403	247,637,000	269,901,000	288,667,000	348,675,000	360,713,000	367,751,000
Debt Service Requirements	[F]	122,596,333	127,862,000	129,780,000	135,823,000	178,963,000	180,908,000	180,049,000
Net Amounts Available after payment of Debt Service	[E - F]	107,536,070	119,775,000	140,121,000	152,844,000	169,712,000	179,805,000	187,702,000
Revenue Bond debt service coverage								
Test 1	[D ÷ F]	2.83	2.88	3.02	3.05	2.67	2.74	2.81
Test 2	[E ÷ F]	1.88	1.94	2.08	2.13	1.95	1.99	2.04
Amounts to be retained in the Aviation Operating Fund								
Bond R&I Account		$2,499,734	$1,233,000	$2,237,000	$2,237,000	$2,237,000	$130,000	$0
O&M Account		5,000,000	5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Airline Revenue Allocation		2,580,598	50,000	3,985,000	2,744,000	4,138,000	2,447,000	505,000
Discretionary Account		9,580,598	7,050,000	10,985,000	9,744,000	11,139,000	9,446,000	7,507,000
Prior Year Balances in Accounts and Interest Earnings		87,875,140	106,442,000	121,914,000	137,119,000	151,198,000	166,782,000	178,690,000
		$107,536,070	**$119,775,000**	**$140,121,000**	**$152,844,000**	**$169,712,000**	**$179,805,000**	**$187,702,000**

NOTES:

1/ City of Philadelphia records.

2/ City 2018 Final Rate and Charges Budget.

3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology through FY 2023.

4/ Includes required revenue for Terminal Area rentals, International and Common Use Fees, Ramp Area rentals, and Airline Landing Fees.

5/ Represents pledged PFC Revenues for eligible Debt Service on the Series 2010D and the Series 2011A Bonds.

6/ Represents the projected pledged PFC Revenues on the Series 2017 Bonds and future debt.

7/ Per Section 5.01(a) of the General Ordinance, that portion of Aviation Operating Fund balance available for use as Amounts Available for Debt Service.

SOURCES: City of Philadelphia, Division of Aviation (FY 2017-FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), December 2017.

PREPARED BY: AVK Consulting, Inc., December 2017.

1. The 2017 Bonds

1.1 The 2017 Bonds

The City of Philadelphia, Pennsylvania's (the City) Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) and Airport Revenue and Refunding Bonds Series 2017B (AMT) (referred to collectively herein as the 2017 Bonds) will be issued pursuant to The First Class City Revenue Bond Act, as well as, the 2015 Amended and Restated General Revenue Bond Ordinance, approved June 16, 1995, as amended and supplemented (the Original Ordinance) and as further supplemented and amended, the Fifteenth Supplemental Ordinance, approved by the Mayor on February 8, 2017 (the Fifteenth Supplemental Ordinance) and the Sixteenth Supplemental Ordinance, approved by the Mayor on May 17, 2017 (the Sixteenth Supplemental Ordinance). The Original Ordinance together with the Fifteenth and Sixteenth Supplemental Ordinances are collectively referred to as the General Ordinance.

Unless otherwise defined herein, all capitalized terms in this Report of the Airport Consultant (the Report) are used as defined in the General Ordinance and the Airport-Airline Use and Lease Agreement (the Airline Agreement), which is further discussed in Chapter 5 of this Report.

1.1.1 2017 AIRPORT REVENUE BONDS

The City will use the proceeds from the sale of the 2017 Bonds to:

(i) refund, on a current basis, certain outstanding commercial paper notes;
(ii) pay the costs of the 2017 Projects, as described herein;
(iii) refund, on a current basis, the Series 2007A, the Series 2007B and Series 2009A Bonds;
(iv) fund the related Sinking Fund Reserve Requirement for the outstanding Bonds, including the 2017 Bonds;
(v) fund capitalized interest on a portion of the 2017 Bonds; and
(vi) pay costs and expenses relating to the issuance of the 2017 Bonds.

Table 1-1 presents the estimated sources of the proceeds of the 2017 Bonds assumed in the financial analysis in Chapter 5 of this Report. These preliminary numbers are for illustrative purposes and are subject to change.

Table 1-1: Estimated Uses of Proceeds from the Sale of the 2017 Bonds

	SERIES 2017A (NON-AMT)	SERIES 2017B (AMT)	TOTAL
Sources			
Par Amount of 2017 Bonds	$140,855,000	$580,175,000	$721,030,000
Original Issue Premium	16,718,000	61,622,000	78,340,000
Total	**$157,573,000**	**$641,797,000**	**$799,370,000**
Uses			
Deposit to the 2017 Projects Construction Fund	$28,939,000	$305,123,000	$334,062,000
Commercial Paper Takeout	50,147,000	75,791,000	125,938,000
Escrow Deposit	62,133,000	164,519,000	226,652,000
Capitalized Interest Deposit	2,255,000	38,297,000	40,552,000
Sinking Fund Reserve Deposit	13,100,000	53,956,000	67,056,000
Cost of Issuance[1/]	999,000	4,111,000	5,110,000
Total	**$157,573,000**	**$641,797,000**	**$799,370,000**

NOTE:

1/ Includes Underwriters' Discount and other costs of issuance.

SOURCE: Frasca & Associates, November 2017.
PREPARED BY: AVK Consulting, Inc. November 2017.

1.2 General Ordinance

1.2.1 SECURITY FOR THE SERIES 2017 BONDS

Under the provisions of Section 4.02 of the General Ordinance, the 2017 Bonds are to be limited obligations of the City payable from Pledged Amounts. Pledged Amounts include (1) all Project Revenues, (2) amounts payable to the City under a Qualified Swap, (3) all amounts on deposit in or credited to the Aviation Funds (except for amounts in a non-parity sinking fund reserve account), and (4) passenger facility charge (PFC) revenues legally available to pay Debt Service Requirements that have been pledged under a supplemental ordinance.

1.2.2 SIXTEENTH SUPPLEMENTAL ORDINANCE

The Sixteenth Supplemental Ordinance set forth various amendments and definitional changes to the General Ordinance. Some of these amendments and changes became effective upon enactment on May 17, 2017. Other amendments and changes will become effective either upon the consent of at least 67 percent or 100 percent of the Holders. The issuance of the 2017 Bonds will incorporate only those amendments and changes effective as of May 17, 2017. Select amendments and changes are discussed below.

Project Revenues

The definition of Project Revenues does not include Customer Facility Charges (CFCs). No pledged CFCs are assumed in the Financial Analysis contained in Chapter 5 of this Report.

Designated PFC Revenues for Debt Service

The Sixteenth Supplemental Ordinance added Section 4.02A to the General Ordinance. Section 4.02A, permits the City to designate PFC Revenues for the payment of Debt Service Requirements. To the extent PFC Revenues available for Debt Service exceed the amount of pledged PFC Revenues, additional PFC Revenues may be used for the payment of Debt Service Requirements by filing a certificate signed by the Director of Finance stating the validity of the designation, the amount of the designation, and the appropriate Sinking Fund account(s) into which the Designated PFC Revenues will be deposited. Designated PFC Revenues for Debt Service do not constitute Pledged Amounts. No Designated PFC Revenues are assumed in the Financial Analysis contained in Chapter 5 of this Report.

1.2.3 RATE COVENANT

As stated in Section 5.01 of the General Ordinance, the City covenants that it will, at a minimum, impose, charge, and recognize as revenues in each Fiscal Year[1] such rentals, charges and fees as shall, together with that portion of Aviation Operating Fund balance attributable to Amounts Available for Debt Service and carried forward at the beginning of such Fiscal Year and together will all other Amounts Available for Debt Service to be received in such Fiscal Year, equal to not less than the greater of:

(1) the sum of:

- (i) all Net Operating Expenses payable during such Fiscal Year;
- (ii) 150 percent of the amount required to pay the Debt Service Requirements during such Fiscal Year;
- (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such Fiscal Year; and
- (iv) the amount, if any, required to be paid into the Renewal Fund during such Fiscal Year; or

(2) the sum of:

- (i) all Operating Expenses payable during such Fiscal Year; and
- (ii) (A) all Debt Service Requirements during such Fiscal Year; (B) all debt service requirements during such Fiscal Year in respect of all outstanding General Obligation Bonds issued for improvements to the Airport System[2] and all outstanding NSS General Obligation Bonds issued for improvements to the Airport System; (C) all debt service requirements during such Fiscal Year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service; (D) all amounts required to repay loans among funds made pursuant to Section 4.05(c); (E) the amount, if any, required to be paid into the Sinking Fund Reserve Account or Renewal Fund during such Fiscal Year; and (F) all amounts required to be paid under Exchange Agreements.

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1 The Airport's Fiscal Year (FY) begins on July 1st and ends on June 30th.

2 The Airport and Northeast Philadelphia Airport (Northeast Airport) are referred to collectively herein as the Airport System.

1.2.4 TRANSFER OF AVIATION OPERATING FUND

Section 4.06 of the General Ordinance sets for the order of priority for the transfer of amounts in the Aviation Operating Fund for the payment of Operating Expenses, Debt Service Requirements, and deposits and requirements for other funds and accounts. The Transfer of Aviation Operating Fund to Other Funds and Accounts is illustrated graphically on **Exhibit 1-1**.

1.2.5 ADDITIONAL BONDS

Section 5.04 of the General Ordinance requires, as a condition for the City's issuance of an additional series of Obligations, that a report be prepared by nationally recognized independent consultants having broad experience in the operation of major airport systems. The report is required to address, for each series of Obligations, the ability of the Airport System to yield Pledged Amounts Available for Debt Service sufficient to comply with the Additional Bonds Test.

The report is required to demonstrate that the Additional Bonds Test:

(i) was met for the Fiscal Year immediately preceding the date of the report (or for any period of 12 full consecutive months during the 18 months preceding the date of the report);
(ii) is estimated to be met for each of the five Fiscal Years ended immediately following the issuance of the additional Bonds; and
(iii) to document that, as of the date of the report, no deficiency exists in the Sinking Fund Reserve Account.

Exhibit 1-1: Transfer of Aviation Operating Fund to Other Funds and Accounts

Application of Project Revenues and other amounts on deposit in the Aviation Operating Fund: ← **Other Amounts Available for Debt Service +**

1. **Payment of Net Operating Expenses**
2. **Deposit to the Sinking Fund to pay the Debt Service Requirements of Airport Revenue Bonds**
3. **Restoration of any deficiency in the Sinking Fund Reserve Account**
4. **Restoration of any deficiency in the Renewal Fund and payment of any amounts due under Exchange Agreements.**
5. **Termination Payments – Qualified Swaps++**
6. **Payment of debt service on any Subordinate Obligations**
7. **Payment to the City of debt service on General Obligation Bonds**
8. **Payment of Interdepartmental Charges**
9. **Payment to the City of any debt service on any other general obligation debt incurred for the Airport System**
10. **Required Deposits to the Bond Redemption and Improvement Account and the O&M Account**
11. **Required Airline Revenue Allocation, if any**

Any remaining amounts to be Deposited to the Discretionary Account

NOTES:

\+ Includes pledged PFC Revenues; grants-in-aid for capital projects deposited into the Sinking Fund; and portions of the Aviation Operating Fund related to the Bond Improvement and Redemption Account, the O&M Account, and the Discretionary Account, created under the Airline Agreement.

++ Amounts payable to a Qualified Swap Provider due as a result of the termination of a Qualified Swap and termination amounts payable to JP Morgan Chase Bank- New York, if any, with respect to Payments Upon Early Termination on the Interest Rate Swap Transaction effective June 15, 2005.

SOURCE: General Ordinance, as defined herein.
PREPARED BY: AVK Consulting, Inc. November 2017.

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2. Airport Facilities, the Capital Program, and the 2017 Projects

Philadelphia International Airport is the only commercial-service airport serving the Philadelphia MSA. The Airport is owned by the City and operated by the Division of Aviation (the Division). The Northeast Airport is a general aviation airport owned by the City and operated by the Division. This chapter presents a summary of existing facilities at Philadelphia International Airport and describes the Division's ongoing capital program, including the 2017 Projects.

2.1 Airport Facilities

The Airport occupies more than 2,400 acres of land approximately seven miles southwest of downtown Philadelphia. Its primary facilities consist of the airfield, terminal area, rental car facilities, air cargo areas, maintenance/airport support areas, and surface access/parking areas. These facilities are described in the following sections of this chapter.

2.1.1 AIRFIELD

The airfield has four active runways—parallel Runways 9L-27R and 9R-27L, crosswind Runway 17-35, and commuter Runway 8-26. A network of taxiways, aprons, and aircraft holding areas supports the runways. The runways are equipped with electronic and other navigational aids that permit aircraft to land in most weather conditions, including instrument landing system (ILS) equipment on six of the eight runway ends. The Airport can accommodate Airplane Design Group (ADG) VI aircraft, such the Airbus A380 and the Boeing 747-8.[1] The existing Airport layout is shown on **Exhibit 2-1**.

1 ADG is a Federal Aviation Administration (FAA)-defined classification of aircraft types that has six groups based on aircraft wingspan and tail height. ADG VI is the largest group of aircraft based on the FAA's classifications.

SOURCE: Google Earth Pro (Aerial Photography), May 2016.
PREPARED BY: Ricondo & Associates, Inc., April 2017.

EXHIBIT 2-1

Existing Airport Layout

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2.1.2 TERMINAL AREA

The airlines serving the Airport operate from seven terminal buildings with a total of 126 gates encompassing approximately 3.3 million square feet of space.[2] The International Terminal serves most international departures and all international arrivals requiring Federal Inspection Services (FIS). American Airlines (American) has a preferential lease for 7 gates in the International Terminal and the remaining gates are common-use gates. In 2003, American (then U.S. Airways) worked in conjunction with Airport management to open the International Terminal, a portion of Terminal A (Terminal A-West) and develop the Airport into an international gateway for its network. Additional information on the role of the Airport in American's route network is provided in Chapter 4. The domestic terminal complex is located to the north of the primary runways, 9L-27R and 9R-27L, and includes a portion of Terminal A (Terminal A-East), Terminal B, Terminal C, Terminal D, Terminal E, and Terminal F (a commuter terminal for American Eagle). The majority of the gates in the domestic terminal complex are leased by the airlines on a preferential-use basis. **Table 2-1** presents the number of gates the Airport operates, based on the Airline Agreement, and the number of jet bridges for each terminal.

Table 2-1: Gates and Jet Bridges by Terminal

TERMINAL	PREFERENTIAL GATES	COMMON USE GATE	TOTAL GATES	JET BRIDGES
Terminal A-West	0	13	13	13
Terminal A-East	7	5	12	11
Terminal B	15	0	15	15
Terminal C	15	0	15	15
Terminal D	12	4	16	16
Terminal E	14	3	17	17
Terminal F	38	0	38	24
Total	**101**	**25**	**126**	**111**

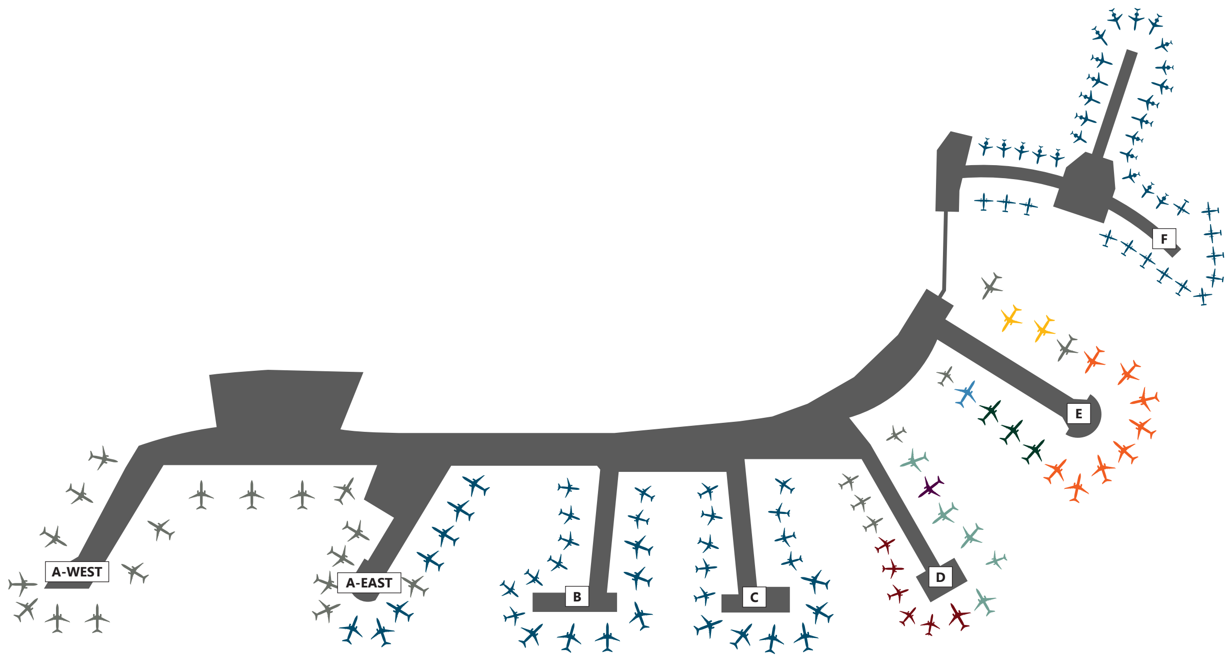
SOURCE: City of Philadelphia, Department of Commerce, Division of Aviation, June 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

Exhibit 2-2 presents the leased gate configuration for each terminal at the Airport by airline.

Also located within the terminal area are a hotel, a parking garage, and the Airport heating and refrigeration plant. The 15-story hotel, leased and operated by Marriott Hotels & Resorts and located directly across from Terminal B, provides 414 guest rooms and 5 suites, as well as restaurants and meeting facilities.[3] The parking garage adjacent to the terminals provides approximately 11,000 spaces for public and employee parking.

2 Gates A1, C16, and F10 are used for shuttling passengers between terminals.

3 Marriott Hotels & Resorts, http://www.marriott.com/hotels/fact-sheet/travel/phlar-philadelphia-airport-marriott/ (accessed December 21, 2016).



LEGEND	AIRLINE	TERMINAL							TOTAL
		A-WEST	A-EAST	B	C	D	E	F	
	American	-	7	15	15	-	-	38	75
	Delta	-	-	-	-	6	-	-	6
	United	-	-	-	-	5	-	-	5
	JetBlue	-	-	-	-	-	1	-	1
	Air Canada	-	-	-	-	1	-	-	1
	Southwest	-	-	-	-	-	8	-	8
	Frontier	-	-	-	-	-	3	-	3
	Spirit	-	-	-	-	-	2	-	2
	Common Use Gates	13	5	-	-	4	3	-	25
	TOTAL GATES	**13**	**12**	**15**	**15**	**16**	**17**	**38**	**126**

NOTES
1/ Parked aircraft not representative of gate ADG design capability.
2/ Aircraft not parked at gates A1, C16, and F10, which are used for shuttlig passengers between terminals.

SOURCE: City of Philadelphia, Department of Commerce, Division of Aviation, June 2017.
PREPARED BY: Ricondo & Associates, Inc., October, 2017.

EXHIBIT 2-2

Terminal Area Gate Configuration

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Report of the Airport Consultant

2.1.3 RENTAL CAR FACILITIES

On-Airport rental car facilities are currently located on land that is remote from the terminals; company-specific shuttle buses operate between the rental car facilities and the terminals. Seven rental car brands currently operate on-Airport: Alamo Rent A Car, Avis Rent A Car System, Budget Rent A Car System, Dollar Rent A Car, Enterprise Rent-A-Car, Hertz Rent a Car, and National Car Rental. Off-Airport rental car operators include E-Z Rent-A-Car, Payless Car Rental, Sixt rent a car, and Thrifty Car Rental. As part of the Airport's capital program, Airport management is in the planning phases of constructing a consolidated rental car facility (CONRAC).

2.1.4 AIR CARGO AREAS

The Airport is a major center for air cargo shipments with nearly half of the U.S. population living within a one-day drive of the Airport.[4] UPS operates its second largest North American base as measured by freight facility size on the southwest side of the Airport. At this East Coast Region Hub, UPS operates approximately 40 flights per day serving most of the United States' eastern seaboard. UPS operates an approximately 700,000-square-foot sorting hub and maintains a ramp of approximately 50 acres with the capacity to accommodate 26 parked aircraft at one time.[5] West of the passenger terminal facilities, Airport management also operates Cargo City with six non-UPS cargo facilities that encompass nearly 450,000 square feet of cargo space. In 2015, American opened a 25,000 square-foot temperature-sensitive pharmaceutical handling facility to serve the life science and healthcare industries.

2.1.5 MAINTENANCE/AIRPORT SUPPORT AREAS AND OTHER FACILITIES

American leases and operates an aircraft maintenance facility at the Airport. It also operates a 56,000-square-foot ground service equipment (GSE) facility at the west end of the Airport that handles repairs and upkeep of equipment. A maintenance hangar and parking area on 9.15 acres of land is a located in Cargo City. The Airport management also operates a general aviation terminal on the northeast side of the Airport and leases additional general aviation hangars on the south side of the Airport.

In 2015, the City purchased a property adjacent to the Airport known as International Plaza. It has two office buildings that are [fully leased] with approximately 500,000 square feet of rentable space on 27 acres.

2.1.6 SURFACE ACCESS

Access to the domestic passenger terminal complex is provided via Interstate 95 (I-95) from the north side of the Airport. The passenger terminal roadway can be accessed from I-95 or Pennsylvania Route 291, which borders the Airport to the north and east. Other roadways that surround Airport property include Tinicum Island Road to the north, Hog Island Road to the south, and Fort Mifflin Road to the west; the Delaware River borders the Airport to the south. The passenger terminal complex is also accessible via public transit, with rail service between the Airport and City Center provided by the Southeastern Pennsylvania Transportation Authority (SEPTA) Regional Rail Airport Line. Stations are located at Terminals A, B, C&D, and E&F.

4 Philadelphia International Airport, https://www.phl.org/Pages/Business/PHLCargo/cargo_default.aspx (accessed December 13, 2016).

5 UPS Air Operations Facts, https://www.pressroom.ups.com/pressroom/ContentDetailsViewer.page?ConceptType=FactSheets&id=1426321563773-779 (accessed December 13, 2016).

2.1.7 PARKING AREAS

Vehicle parking is provided in various locations throughout the Airport. An approximately 11,000-space parking garage adjacent to the terminals accommodates a major portion of the Airport's public parking demand. Nearly 1,000 spaces are available for short-term parking on the ground level of the garage. The garage is supplemented by surface lots that provide approximately 7,100 spaces and additional surface parking is provided in various locations throughout the Airport. The public parking facilities at the Airport are leased and operated by the Philadelphia Parking Authority (PPA). PPA may issue bonds to refinance short-term borrowing and fund capital improvements related to public parking at the Airport. Employee parking is provided in two lots totaling approximately 4,200 spaces. The main employee surface parking lots are within the North Maintenance Hangar Area, and public surface parking lots are located within the terminal area and in the Airport support area along Mannheim Road. A cell phone lot is available for people waiting to pick up arriving passengers. This 150-space lot is intended to alleviate congestion on the terminal roadways and there is no charge to users of the cell phone lot, but parking in the lot is limited to 60 minutes.

2.2 Overview of the Capital Program

The City maintains an on-going capital plan that addresses airport development needs, as well as repair and maintenance of existing facilities. The following sections describe the Airport's capital plans including a shift from the prior Capacity Enhancement Program (CEP) to the Capital Development Program (CDP).

In January 2011, the FAA approved the CEP for the Airport, a program with the purpose of enhancing airfield capacity to address delays at the Airport. At that time, the Airport had been long identified by the FAA as one of the airports contributing to delays throughout the National Airspace System (NAS).[6] The CEP was based on the Airport's Master Plan and included projects addressing runway length, airfield geometry, runway capacity, in addition to expansion and reconfiguration of the existing terminal complex.

In September 2011, the FAA awarded the Airport a $466.5 million Letter of Intent (LOI) to provide some funding for certain airfield elements of the CEP. From 2007 through 2017, improvements to air traffic control were implemented by the FAA and some airfield improvements were completed by the Airport. These improvements, in conjunction with a decrease in operational activity during this same period (due in part to airline changes to their aircraft fleets and increase to average seats per operation), resulted in reduced aircraft movements and a reduction in delays at the Airport. As a result, the Airport and Airlines priorities shifted from airfield capacity and delay projects, such as the new runway, and focused on terminal, gate capacity, landside, and cargo development instead. Additionally, airfield improvement priorities were reassessed by the Airlines, Airport, and the FAA.

In 2017, the Airport and the FAA agreed to close the LOI, which resulted in the suspension of the FAA's Record of Decision and a formal closure notice posted by the FAA in the Federal Register in October 2017. This is anticipated to allow the Airport to focus FAA Entitlement and future Discretionary Grant funding for other airfield improvements rather than projects associated with the new runway. The Airport Master Plan, which

6 FAA Record of Decision for Capacity Enhancement Program at Philadelphia International Airport, December 2010, Page 1.

includes the new runway project, is still valid and the Airport intends to preserve the ability to implement the runway project when the operational needs warrant it.

The shift in capital priorities to terminal, landside, and cargo development, along with reprioritized airfield improvements, has resulted in the Airport implementing a revised capital plan that incorporates terminal, landside and cargo projects identified in the Master Plan in addition to near-term capital facility needs, including on-going rehabilitation and repair projects. That plan is identified as the CDP and is described in the following sections.

2.2.1 CAPITAL DEVELOPMENT PROGRAM

Under the Airline Agreement, the Airlines have approved approximately $2.4 billion in CDP projects, of which approximately $370.1 million have been completed. The CDP includes approximately $2.0 billion of airline approved projects remaining to be completed, which incorporate long-term development projects and on-going rehabilitation and repair projects that generally address the Airport's capital needs. The primary focus of the CDP is for the terminal development and rehabilitation, airfield improvements and pavement rehabilitation, apron improvements, land acquisition, ground transportation projects, security and information technology enhancements, support facilities, and improvements at the Northeast Airport. The Airport continues to work with the airlines to evaluate operational needs at the Airport and assess the timing and scope of projects. The CDP will continue to evolve as adjustments are made.

Airfield and Apron Improvements

Airfield and apron improvement projects comprise approximately $699.1 million, or 34.9 percent of the total CDP. Major airfield improvements in CDP include: 9R-27L Runway extension work; construction of an airport traffic control tower, which is contingent on partial federal funding; an airfield pavement program; deicing improvements; wetlands mitigation; airfield security and access control; lighting and electrical improvements; and additional airfield and apron improvement and equipment.

Terminal and Landside Improvements

Terminal and landside improvements projects comprise approximately $812.6 million, or 40.2 percent of the total CDP. Major terminal improvements in the CDP include: Terminal D and E ticketing hall and checked baggage system renovations; planning and design for international gate expansion; loading bridge replacement; terminal systems rehabilitation and improvements; terminal interior and exterior renovations and improvements; roof replacement program; restroom renovation program; baggage handling system improvements; terminal concession development and redevelopment; and other terminal improvements. Major landside improvements include: improvements to support facilities and other projects.

Security and Information Technology

Security and Information Technology (IT) improvement projects comprise approximately $67.1 million, or 3.3 percent of the total CDP. Major security improvements in the CDP include: perimeter surveillance upgrades; badging system upgrades, design of automated unstaffed exited lanes expansion, expansion of the ID badging office, Terminal B/C boarding bridge access control extension, additional security and perimeter gate improvements, and construction of redundant IT support facilities to maintain business continuity.

Land Acquisition and Ground Transportation Projects

The CDP includes approximately $88.4 million in proposed land acquisition and approximately $312.1 million for development of a CONRAC facility and associated transportation system. In total, these two projects comprise approximately $400.5 million, or approximately 20.3 percent of the total CDP.

Northeast Airport

The Northeast Airport is two-runway general aviation airport that does not provide commercial service. It is included in the City's Aviation Fund. Northeast Airport improvement projects comprise approximately $26.0 million, or 1.3 percent of the total CDP. Major improvements in the CDP include: Runway rehabilitation, taxiway rehabilitation program, airfield lighting program, Runway Safety Area (RSA) upgrades, and signage improvements.

Table 2-2 presents the CDP project costs for approximately $2.0 billion of airline approved projects remaining to be completed.

2.2.1.1 Sources of Funding

The Division's capital projects have been funded primarily through federal and the Commonwealth of Pennsylvania (the Commonwealth) grants-in-aid, PFC Revenues, CFC Revenues, Airport Revenue Bonds (including the Commercial Paper Notes) and general obligation bonds of the City. The Airport expects to continue to fund Capital Development projects with a combination of federal and Commonwealth grants-in-aid, PFCs, CFC Revenues and proceeds from additional issues of Airport Revenue Bonds.

Airport Revenue Bonds

The financing of a portion of the CDP for the Airport System has been accomplished through the sale of Airport Revenue Bonds. The financing of CDP with Majority-in-Interest (MII) Approval under the Airline Agreement allows the City to include the debt service on Airport Revenue Bonds issued for such approved projects in the rates, fees and charges paid by the Signatory Airlines. The financial analysis included in Chapter 5 of this Report includes approximately $815.0 million of project costs funded with Airport Revenue Bonds through the Projection Period, which includes the 2017 Bonds and a planned issuance in 2020. Additional information about Airport Revenue Bonds is discussed in Section 5.5 of this Report.

Federal Grants-in-Aid

The Airport and Airway Improvement Act of 1982 created the Airport Improvement Program (the AIP), which is administered by the FAA and funded by the Airport and Airway Trust Fund. This fund is financed by various federal aviation user taxes. Grants are available to airport operators across the country in the form of "entitlement" funds and "discretionary" funds. Entitlement funds are apportioned annually based upon cargo volume and enplaned passengers, and discretionary funds are available at the discretion of the FAA based upon a national priority system. Actual entitlement funds will vary with the actual number of passenger enplanements and cargo volume, with total appropriations for the AIP and with any revision of the existing statutory formula for calculating such funds. In addition, pursuant to the PFC Act and the Aviation Investment and Reform Act for the 21st Century, an airport's annual Federal entitlement grants are reduced by 50% following the imposition of PFCs at the $3.00 level and by 75% following imposition at the $4.00 or $4.50 level.

Table 2-2: Current CDP (as of November 1, 2017)

(Dollars in Thousands)

USES OF FUNDING	TOTAL PROJECT COSTS
Airfield and Apron Improvements	
Runway 9R-27L extension and taxiway work	$202,800
Airport Traffic Control Tower	197,500
Airfield Pavement Program	65,750
Deicing Improvements	49,710
Wetlands Mitigation	30,000
Airfield Security and Access Control	28,000
Lighting & Electrical Improvements	19,000
Other Airfield Improvements and Equipment	75,300
Apron projects	31,000
	$699,060
Terminal and Landside Improvements	
Terminal Redevelopment and Expansion	$420,090
Loading Bridge Replacement Program	43,000
Terminal Systems Rehabilitation and Improvements	61,250
Terminal Interior and Exterior Renovations and Improvements	46,800
Roof Replacement Program	17,500
Restroom Renovation Program	28,250
Baggage Handling System Improvements	23,000
Terminal Concession Development	13,000
Other Terminal Improvements	19,500
PHL Support Facilities	96,500
Other landside improvements	43,720
	$812,610
Security and Information Technology	**$ 67,160**
Land Acquisition and Ground Transportation Projects	
Land Acquisition	$ 88,400
Ground Transportation	312,090
	$400,490
Northeast Airport Projects	**26,000**
Total Approved CDP 1/	**$2,005,320**

NOTE:

1/ Does not include approximately $370.1 million of CDP projects that have been completed.

SOURCE: City of Philadelphia, Department of Commerce, Division of Aviation, November 2017
PREPARED BY: Ricondo & Associates, Inc, and AVK Consulting, Inc., November 2017.

Commonwealth Grants-in-Aid and Other Assistance

The Pennsylvania Department of Transportation, through Act 164 of 1984, provides grants for airport improvements. The Division of Aviation has received grants for the last 20 years for improvements at the Airport and for improvements at the Northeast Airport. These grants have been used for airfield improvements.

Customer Facility Charges for Rental Car Facility

On November 25, 2013, the Governor of Pennsylvania signed a comprehensive transportation bill into law which permitted the Airport to establish and collect a CFC of not more than $8 per rental day on customers renting motor vehicles from Airport rental car operators. The proceeds of the CFC collections are to be used solely for the planning, development, financing, construction and operation of the Centralized Ground Transportation Center Project, which includes the consolidated rental car facility. Rental car operators began collecting CFCs in May 2014 at $8 per rental day from their customers and remitting them to the Airport.

Passenger Facility Charges

PFCs are authorized by the Aviation Safety and Capacity Expansion Act of 1990, as amended (the "PFC Act"), and implemented by the FAA pursuant to published regulations issued with respect to the PFC Act (the "PFC Regulations"). The PFC Act permits a public agency, such as the City, which controls certain commercial service airports to charge each paying passenger enplaning at the airport (subject to certain limited exceptions) a PFC of up to $4.50. Pursuant to the PFC Act and to the City's current approvals from the FAA, the City may, with certain exceptions, charge each paying passenger who enplanes at the Airport a PFC of $4.50. The PFC Act requires air carriers and their agents to collect the PFCs and to remit to the City once each month the proceeds of such collections, less a $0.11 handling fee and without interest earned prior to such remittance.

PFCs are to be used to finance FAA-approved airport-related projects that preserve or enhance capacity, safety or security of the national air transportation system, reduce noise from an airport that is part of the system or provide an opportunity for enhanced competition between or among air carriers or foreign air carriers. Further information on PFC Revenue is discussed in Section 5.4 of this Report.

Table 2-3 presents the sources of funding for the CDP.

Table 2-3: Funding of Current CDP (as of November 1, 2017)

(Dollars in Thousands)

SOURCES OF FUNDING	
PFC / Federal and Commonwealth Grants-in-Aid	$340,951
CFC / Other Assistance	319,584
Existing Bonds / Direct Loan	95,228
Proposed 2017 Bonds	431,053
Proposed 2020 Bonds	384,905
Future Debt	433,605
Estimate Total Sources of Funds	**$2,005,320**

SOURCE: City of Philadelphia, Department of Commerce, Division of Aviation, November 2017
PREPARED BY: Ricondo & Associates, Inc, and AVK Consulting, Inc., November 2017.

2.3 The 2017 Projects

A portion of the proceeds from the sale of the 2017 Bonds is anticipated to be used to fund the 2017 Projects, which consist of the refunding, on a current basis, of approximately $125.9 million of commercial paper and to provide Airport Revenue Bond financing for approximately $334.1 million.

Table 2-4 presents the estimated uses of the 2017 Bonds for the 2017 Projects. The 2017 Bonds is to be used to fund approximately $73.4 million of the airfield and apron projects including deicing improvements;

approximately $355.1 million for terminal and landside improvements, which include terminal development projects, loading bridges, mechanical and system upgrades, roadway safety and demolition of facilities; approximately $2.0 million in security and information technology; approximately $0.6 million for Northeast Airport's airfield lighting improvements; and approximately $28.9 million in refunding of already completed non-CDP projects.

Table 2-4: Estimated Uses of the 2017 Bonds

(Dollars in Thousands)

2017 PROJECTS	REFUNDING OF COMMERCIAL PAPER	NEW MONEY	TOTAL
Airfield and Apron	$44,992	$28,440	$73,432
Terminal and Landside	51,944	303,122	355,066
Security and Information Technology	-	2,000	2,000
Northeast Airport	55	500	555
Subtotal Total Approved Capital Development Program	**$96,991**	**$334,062**	**$431,053**
Other Completed Projects	28,947	-	28,947
Total Estimated 2017 Bonds Construction Fund Deposit	**$125,938**	**$334,062**	**$460,000**

SOURCE: City of Philadelphia, Department of Commerce, Division of Aviation, November 2017
PREPARED BY: Ricondo & Associates, Inc. and AVK Consulting, Inc., November 2017.

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3. Demographic and Economic Analysis

The demand for airline travel is, to a large degree, dependent upon the demographic and economic characteristics of the geographical area served by an airport, commonly referred to as an airport's air trade area. This dependence is particularly significant for origin and destination (O&D) passenger traffic, which accounted for approximately 66.7 percent of total passengers at the Airport in CY 2016 according to U.S. Department of Transportation ticket sample data. The major portion of demand for airline travel at the Airport, therefore, is influenced more by local demographic and economic characteristics than by individual airline decisions regarding service patterns in support of connecting activity. This chapter presents data that indicate the geographical area served by the Airport (the 11-county Air Trade Area) has an economic base capable of supporting increased demand for airline travel through the Projection Period (ending FY 2023).

3.1 The Air Trade Area

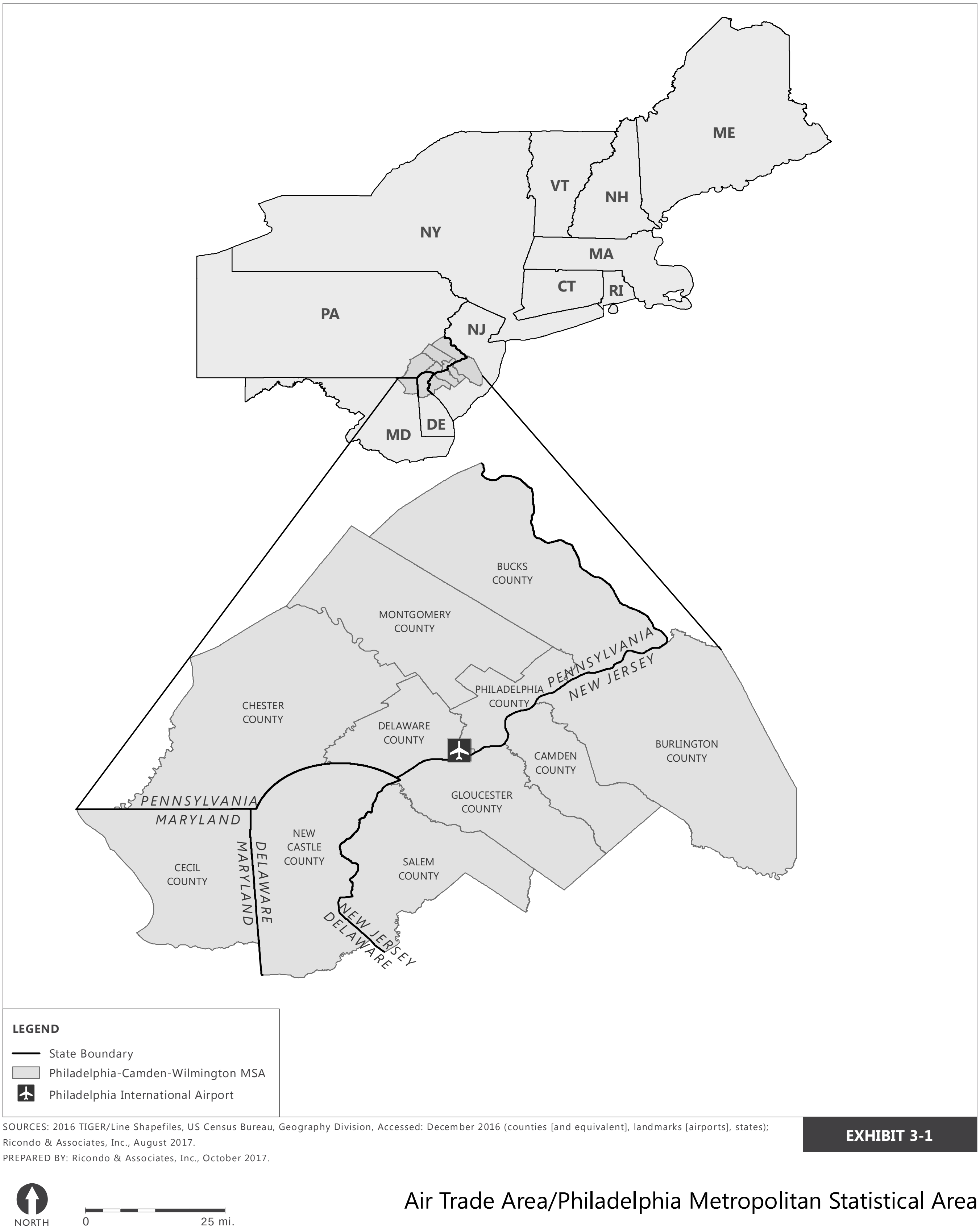
The boundaries of an airport's air trade area are influenced by such factors as the location of other metropolitan areas and their associated airport facilities. For purposes of this Report, the Air Trade Area for the Airport consists of the Philadelphia-Camden-Wilmington, Pennsylvania-New Jersey-Delaware-Maryland Metropolitan Statistical Area (Philadelphia MSA).[1] As presented on **Exhibit 3-1**, the Air Trade Area/Philadelphia MSA encompasses 11 counties in four states: New Castle County in Delaware; Cecil County in Maryland; Burlington, Camden, Gloucester, and Salem Counties in New Jersey; and Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties in Pennsylvania.

3.2 Demographic Analysis

3.2.1 POPULATION

With a population of approximately 6.1 million in CY 2016, the Philadelphia MSA is the seventh most populous MSA in the United States (see **Exhibit 3-2**); it is a major air transportation market.

1 A Metropolitan Statistical Area is a geographic entity delineated by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. MSAs contain at least one urbanized area with a population of 50,000 or more, plus adjacent territory that has a high degree of social and economic integration with the urbanized area, as measured by commuting ties.

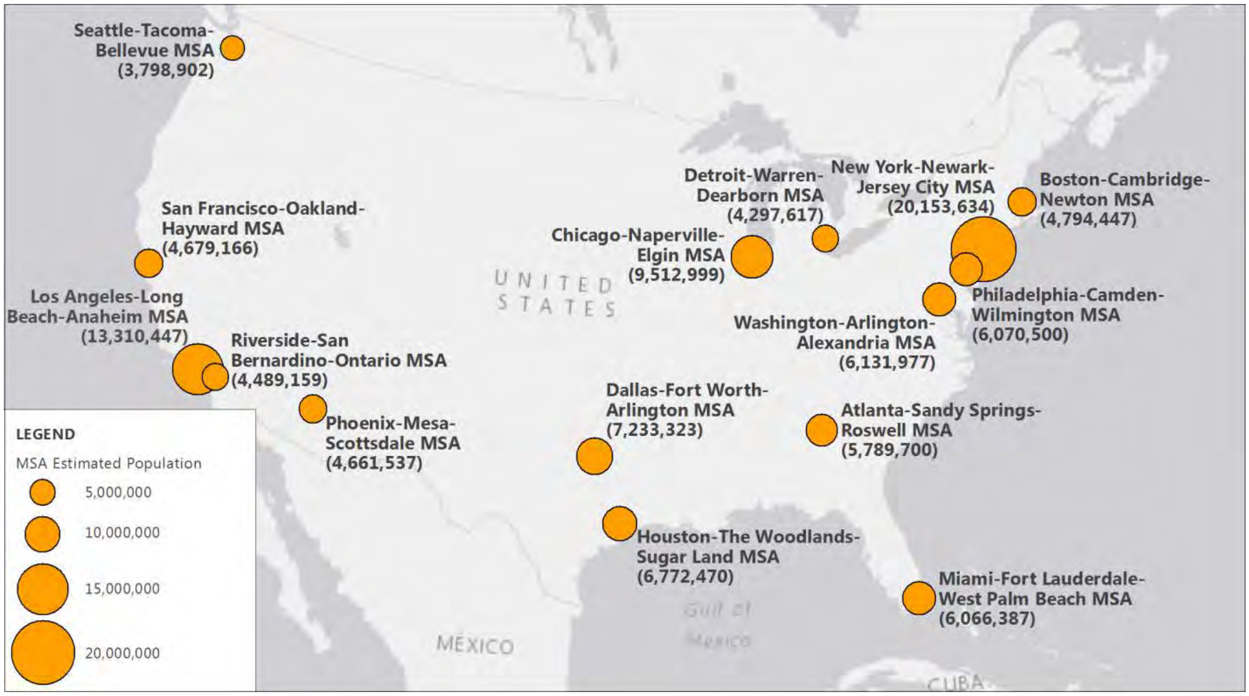


SOURCES: 2016 TIGER/Line Shapefiles, US Census Bureau, Geography Division, Accessed: December 2016 (counties [and equivalent], landmarks [airports], states); Ricondo & Associates, Inc., August 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

EXHIBIT 3-1

Air Trade Area/Philadelphia Metropolitan Statistical Area

Exhibit 3-2: Fifteen Largest Metropolitan Statistical Areas in the United States (CY 2016)



SOURCE: U.S. Department of Commerce, Bureau of the Census, Population Division, *Annual Estimates of the Resident Population: July 1, 2016*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., August 2017.

The City of Philadelphia, which encompasses the same area as Philadelphia County, had approximately 1.6 million residents in CY 2016, making it the sixth largest city in the United States based on CY 2016 population estimates.[2] Philadelphia and Montgomery Counties in Pennsylvania are the Air Trade Area's most populous counties, with 25.7 percent and 13.5 percent, respectively, of the Air Trade Area's total CY 2016 population. In CY 2016, 67.4 percent of the population of the Air Trade Area resided in the five Pennsylvania counties, 21.7 percent resided in the four New Jersey counties, 9.2 percent resided in the one Delaware county, and 1.7 percent resided in the one Maryland county.

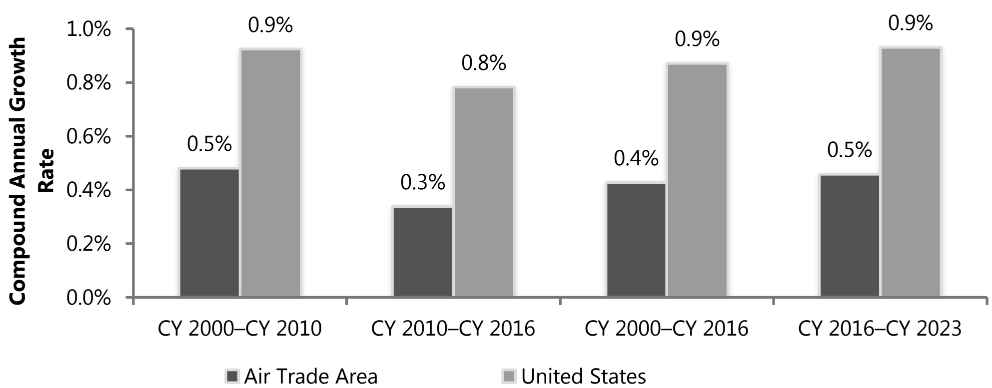
Typically, a positive correlation exists between population growth in a local area and the demand for airline travel. Historical and projected population data for the Air Trade Area and the United States are presented in **Table 3-1**. As shown, the population of the Air Trade Area increased from 5,691,968 in CY 2000 to 5,971,463 in CY 2010 and to 6,093,548 in CY 2016. Population growth in the Air Trade Area between CY 2000 and CY 2016 (compound annual growth rate of 0.4 percent) was less than that experienced in the nation as a whole (compound annual growth rate of 0.9 percent) during the same period. Population growth in the Air Trade Area

2 City ranking based on July 1, 2016 annual estimates from the U.S. Department of Commerce, Bureau of the Census, of the resident population for incorporated places of 50,000 or more.

over the last decade is comparable to the growth experienced in other major metropolitan areas, including Chicago, Los Angeles, and New York.[3]

Table 3-1: Historical and Projected Population (CY 2000–CY 2023)

	HISTORICAL			PROJECTED
AREA	**CY 2000**	**CY 2010**	**CY 2016**	**CY 2023**
Air Trade Area by County	5,691,968	5,971,463	6,093,548	6,291,877
New Castle (DE)	501,837	538,911	560,851	592,785
Cecil (MD)	86,448	101,164	103,478	111,976
Burlington (NJ)	424,453	449,218	452,916	474,267
Camden (NJ)	506,707	513,594	512,038	522,184
Gloucester (NJ)	256,524	288,701	294,560	318,447
Salem (NJ)	64,177	65,998	64,297	65,409
Bucks (PA)	599,085	625,473	631,446	663,641
Chester (PA)	435,303	499,950	520,071	552,342
Delaware (PA)	551,536	559,053	565,139	576,436
Montgomery (PA)	751,335	801,063	823,767	859,729
Philadelphia (PA)	1,514,563	1,528,338	1,564,985	1,554,661
United States	282,162,376	309,346,806	324,160,750	345,864,633



SOURCE: Woods & Poole Economics, Inc., *2017 Complete Economic and Demographic Data Source*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

Table 3-1 also presents population projections for the Air Trade Area and the United States for CY 2023, as developed by Woods & Poole Economics, Inc. During the Projection Period, population in the Air Trade Area is projected to increase at a compound annual growth rate of approximately 0.5 percent, from 6,093,548 in CY

[3] Between CY 2006 and CY 2016, the population of the MSAs that include the cities of Chicago, Los Angeles, New York, and Philadelphia increased at compound annual growth rates of 0.3 percent, 0.6 percent, 0.5 percent, and 0.4 percent, respectively. (SOURCE: Woods & Poole Economics, Inc., 2017 Complete Economic and Demographic Data Source, May 2017.)

2016 to 6,291,877 in CY 2023. The population of the nation as a whole is projected to increase at a compound annual growth rate of 0.9 percent during the same period. The Air Trade Area's slower projected population growth than the nation is not unusual for its geographical region, as the population growth for the Mideast region[4] is also projected by Woods & Poole Economics, Inc. to increase at a compound annual growth rate of approximately 0.5 percent between CY 2016 and CY 2023.

Philadelphia County is the only county in the Air Trade Area in which a decline in population is projected in 2023. Until CY 2006, Philadelphia County had experienced declining population for more than half a century. Although the recent population growth since CY 2006, which is a result of immigrant inflows and higher birthrates in Philadelphia County more than offsetting domestic population outflows to suburbs and other metropolitan regions, is not projected by Woods & Poole Economics, Inc. to continue, the population decrease projected is relatively small with approximately 10,000 fewer people in Philadelphia County (from 1,564,985 in CY 2016 to 1,554,661 in CY 2023).

3.2.2 AGE DISTRIBUTION AND EDUCATION

Demand for airline travel varies by age group, and this factor influences O&D passenger activity at the Airport. According to Consumer Expenditure Survey data from the U.S. Department of Labor, Bureau of Labor Statistics, in the United States, people between the ages of 35 and 54 account for 42 percent of expenditures on airfares.[5]

Table 3-2 shows that, in CY 2016, residents aged 35 to 54 accounted for 26.0 percent of the total population of the Air Trade Area. The age group that generates the highest share of expenditures on airfares is represented in the population of the Air Trade Area at a slightly higher rate than in the population of the United States (25.7 percent).

According to Consumer Expenditure Survey data, persons with a college degree generate a higher percentage of expenditures on airline travel. Data indicate that 77 percent of airfares are purchased by college graduates, while 17 percent are purchased by consumers who have had some college, and 6 percent are purchased by consumers who never attended college.[6] As shown in Table 3-2, 41.6 percent of the Air Trade Area's population over the age of 25 have a post-secondary degree (associate's, bachelor's, master's, or doctorate)—a higher percentage than the population of the United States (37.8 percent).

In addition to having a highly educated population, the Air Trade Area is also home to 104 colleges and universities with total enrollment of approximately 440,000 students. These educational institutions generate demand for airline travel through academic meetings and conferences, visiting professorships, study abroad programs, and individual student and faculty travel. Additional information on the Air Trade Area's education industry sector is provided in Section 3.3.6 of this Report.

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[4] The Mideast region includes Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania.

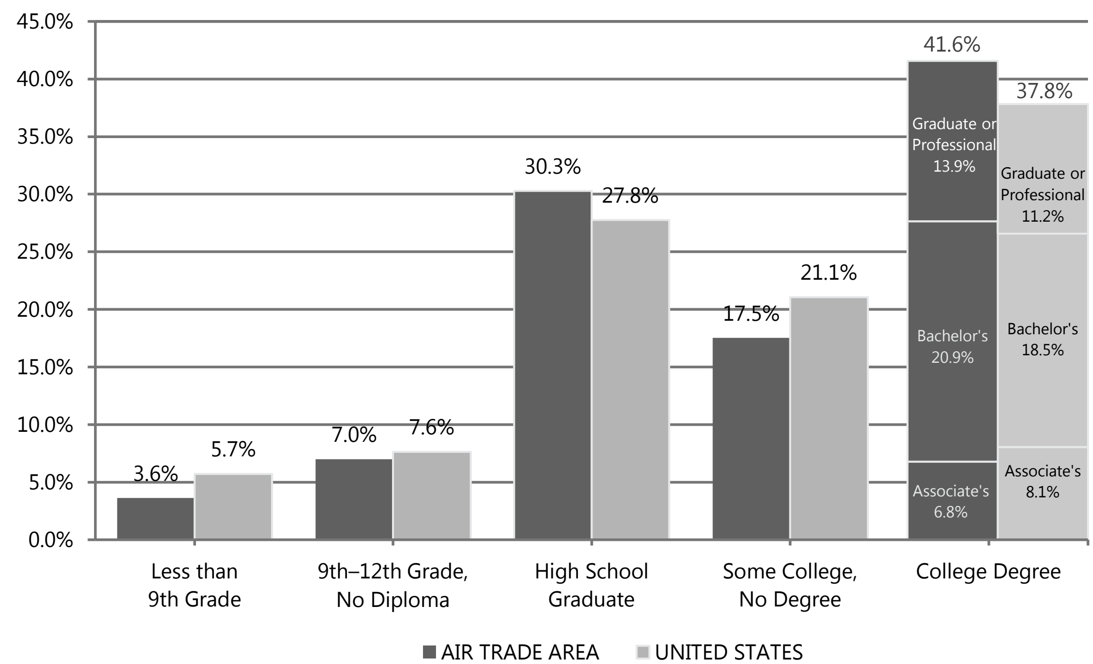
[5] *Who's Buying for Travel,* 11th ed. Ithaca, NY: New Strategist Publications, 2015. Data in *Who's Buying for Travel* are based on the U.S. Department of Labor, Bureau of Labor Statistics' Consumer Expenditure Survey, an ongoing nationwide survey of household spending.

[6] *Who's Buying for Travel,* 11th ed. Ithaca, NY: New Strategist Publications, 2015.

Table 3-2: Age Distribution and Educational Attainment (CY 2016)

	AIR TRADE AREA	UNITED STATES
AGE DISTRIBUTION		
Total Population	6,093,548	324,160,750
By Age Group		
19 and Under	24.6%	25.4%
20 to 24 Years	6.7%	6.9%
25 to 34 Years	14.2%	13.8%
35 to 44 Years	12.2%	12.5%
45 to 54 Years	13.8%	13.2%
55 to 64 Years	13.4%	12.8%
65 and Over	15.1%	15.2%
Total [1]	100.0%	100.0%
Median Age	38.5 years	37.9 years

EDUCATIONAL ATTAINMENT IN POPULATION 25 YEARS AND OLDER[2,3]



NOTES:

1/ Numbers may not add due to rounding.

2/ Educational attainment distribution is based on the U.S. Census Bureau's 2011–2015 American Community Survey 5-Year Estimates and is not for CY 2016; CY 2016 educational attainment data are not available.

3/ High School Graduate includes equivalency.

SOURCES: Woods & Poole Economics, Inc., 2017 Complete Economic and Demographic Data Source, May 2017 (age distribution); U.S. Department of Commerce, Bureau of the Census, 2011–2015 American Community Survey 5-Year Estimates, December 2016 (educational attainment).

PREPARED BY: Ricondo & Associates, Inc., July 2017.

3.2.3 PER CAPITA PERSONAL INCOME

Another key indicator of a region's demand for airline travel is per capita personal income.[7] Per capita personal income indicates the relative affluence of a region's residents, as well as their ability to afford airline travel. It can also be an indicator of an area's attractiveness to business and leisure travelers. Regions with higher per capita personal income often have stronger business connections to the rest of the nation, as well as a more developed market for tourism.

Exhibit 3-3 presents historical per capita personal income for CY 2007 through CY 2016 for the Air Trade Area and the United States. As shown, between CY 2007 and CY 2016, per capita personal income in the Air Trade Area was higher than that of the United States. Per capita personal income in the Air Trade Area increased at a compound annual growth rate of 1.0 percent between CY 2007 and CY 2016, which is comparable to the rate in the United States (0.9 percent) during the same period.

Exhibit 3-3 also shows that per capita personal income in the Air Trade Area is projected to increase at a compound annual growth rate of 1.6 percent, from $52,778 in CY 2016 to $59,068 in CY 2023.[8] This projected growth rate for per capita personal income in the Air Trade Area is comparable to the projected compound annual growth rate of 1.5 percent for the United States.

3.2.4 HOUSEHOLD INCOME DISTRIBUTION

The percentage of higher-income households (defined as those earning $100,000 or more annually) within the Air Trade Area is another key indicator of potential demand for airline travel. According to Consumer Expenditure Survey data from the U.S. Department of Labor, Bureau of Labor Statistics, 54.0 percent of airfare expenditures are made by households with annual incomes of $100,000 or more.[9] **Exhibit 3-4** shows the distribution of households among different income categories for the Air Trade Area and the United States in CY 2016. With approximately 27.1 percent of households in the Air Trade Area earning $100,000 or more in CY 2016, household income in the Air Trade Area was higher than that in the United States as a whole (20.6 percent earning $100,000 or more).

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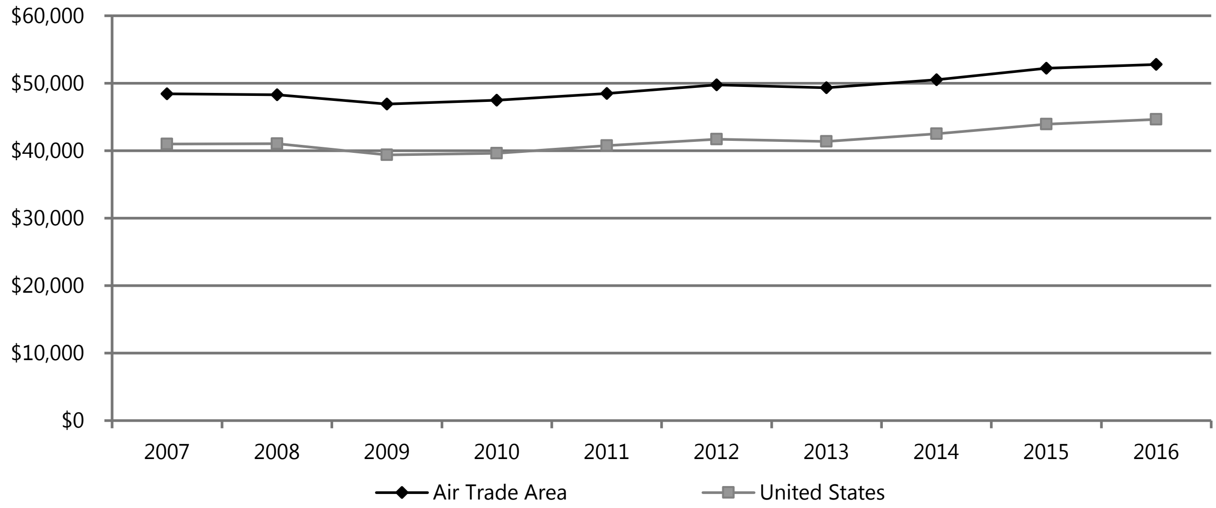
7 Per capita personal income is the sum of wages and salaries, other labor income, proprietors' income, rental income, personal dividend income, personal interest income, and personal current transfer payments, less contributions for government social insurance, divided by the region's population.

8 Amounts are in 2009 U.S. dollars.

9 *Who's Buying for Travel,* 11th ed. Ithaca, NY: New Strategist Publications, 2015.

Exhibit 3-3: Per Capita Personal Income (CY 2007–CY 2016)

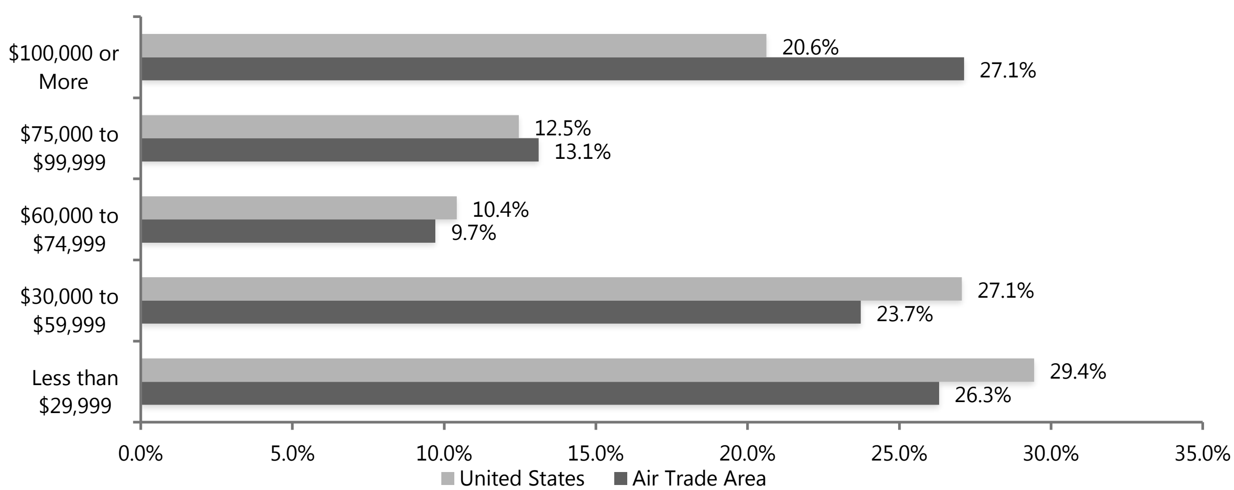


COMPOUND ANNUAL GROWTH RATE	AIR TRADE AREA	UNITED STATES
CY 2007–CY 2016	1.0%	0.9%
CY 2016–CY 2023 (Projected)	1.6%	1.5%

NOTE:
Amounts are in 2009 U.S. dollars.

SOURCE: Woods & Poole Economics, Inc., *2017 Complete Economic and Demographic Data Source*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Exhibit 3-4: Household Income Distribution (CY 2016)



NOTE:
Amounts are in 2009 U.S. dollars.

SOURCE: Woods & Poole Economics, Inc., *2017 Complete Economic and Demographic Data Source*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., July 2017.

3.3 Economic Analysis

3.3.1 PER CAPITA GROSS DOMESTIC/REGIONAL PRODUCT

Per capita gross domestic product (GDP; U.S.-level data) and per capita gross regional product (GRP; state- and county-level data) are measures of the market value of all final goods and services produced within a defined geographic area, divided by the total population of that area. These indicators are broad measures of the economic health of a particular area and, consequently, of the area's potential demand for airline travel.

Exhibit 3-5 presents historical per capita GRP data for the Air Trade Area and per capita GDP data for the United States in CY 2007 through CY 2016.[10] The Air Trade Area's per capita GRP increased from $56,668 in CY 2007 to $60,583 in CY 2016. Per capita GRP for both the Air Trade Area and the United States increased at a compound annual growth rate of 0.7 percent between CY 2007 and CY 2016.

Per capita GRP for the Air Trade Area is projected to increase from $60,583 in CY 2016 to $66,733 in CY 2023. This increase represents a compound annual growth rate of 1.4 percent for the Air Trade Area, which is slightly higher than the projected compound annual growth rate of 1.2 percent for the United States during the same period.

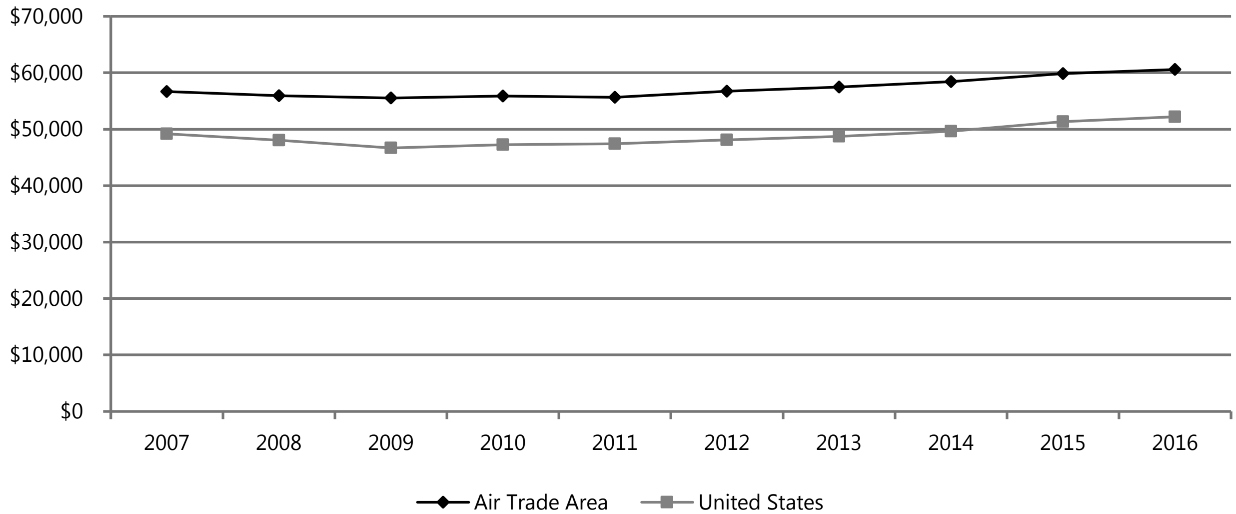
3.3.2 EMPLOYMENT TRENDS

Employment growth is another factor that stimulates airline travel demand. **Exhibit 3-6** shows the annual growth in the civilian labor force in the Air Trade Area and in the United States for CY 2007 through September 2017. Between CY 2007 and CY 2016, the Air Trade Area's labor force increased at a compound annual growth rate of approximately 0.5 percent. The United States' labor force increased at a compound annual growth rate of approximately 0.4 percent during the same period.

Exhibit 3-6 also presents the annual unemployment rate in the Air Trade Area and in the United States. Annual unemployment rates in the Air Trade Area were lower or equal to annual unemployment rates in the United States in six of the last ten years. According to the U.S. Department of Labor, Bureau of Labor Statistics, the Air Trade Area's annual unemployment rate of 5.1 percent was higher than the nation's annual unemployment rate of 4.9 percent in CY 2016. In September 2017, the Air Trade Area's seasonally adjusted unemployment rate was 4.8 percent, compared with 4.2 percent for the nation.

10 Amounts are in 2009 U.S. dollars.

Exhibit 3-5: Per Capita Gross Domestic/Regional Products (CY 2007–CY 2016)



COMPOUND ANNUAL GROWTH RATE	AIR TRADE AREA	UNITED STATES
CY 2007–CY 2016	0.7%	0.7%
CY 2016–CY 2023 (Projected)	1.4%	1.2%

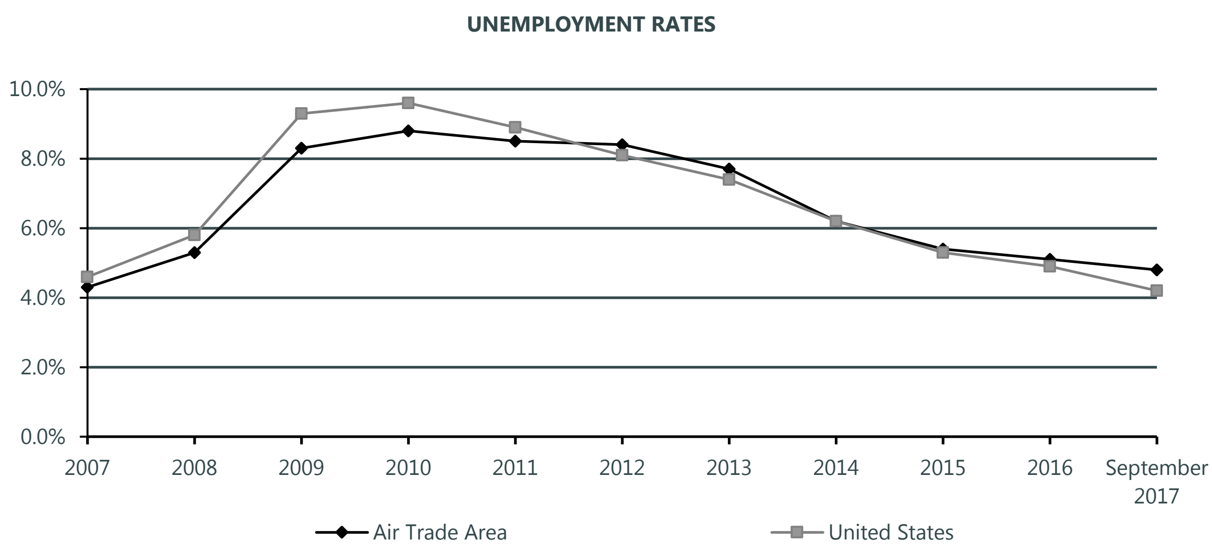
NOTE:

Amounts are in 2009 U.S. dollars.

SOURCE: Woods & Poole Economics, Inc., *2017 Complete Economic and Demographic Data Source*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Exhibit 3-6: Civilian Labor Force and Unemployment Rates (CY 2007–September 2017)

CIVILIAN LABOR FORCE (IN THOUSANDS)			UNEMPLOYMENT RATES		
CALENDAR YEAR	**AIR TRADE AREA**	**UNITED STATES**	**CALENDAR YEAR**	**AIR TRADE AREA**	**UNITED STATES**
2007	2,960	153,124	2007	4.3%	4.6%
2008	3,007	154,287	2008	5.3%	5.8%
2009	2,997	154,142	2009	8.3%	9.3%
2010	3,020	153,889	2010	8.8%	9.6%
2011	3,027	153,617	2011	8.5%	8.9%
2012	3,049	154,975	2012	8.4%	8.1%
2013	3,038	155,389	2013	7.7%	7.4%
2014	3,027	155,922	2014	6.2%	6.2%
2015	3,057	157,130	2015	5.4%	5.3%
2016	3,092	159,187	2016	5.1%	4.9%
September 2017 1/	3,106	161,146	September 2017 1/	4.8%	4.2%
CAGR 2007–2016	**0.5%**	**0.4%**			



NOTES:

1/ September 2017 data are seasonally adjusted. September 2017 data for the Air Trade Area are preliminary.

CAGR – Compound Annual Growth Rate

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, https://www.bls.gov/data/ (accessed November 27, 2017).
PREPARED BY: Ricondo & Associates, Inc., November 2017.

3.3.3 BUSINESS CLIMATE

The business climate in the Air Trade Area offers advantages to new, expanding, and relocating companies. These advantages include a young, educated labor pool; a strategic location; and reasonable business costs. According to a 2016 study conducted by KPMG, business costs in the Air Trade Area are lower than the average nationwide for large metropolitan areas;[11] although the Air Trade Area's cost of living is higher than the national average, it is lower than that of other large cities in the Northeast, including Washington, D.C., New York, and Boston.[12] In Delaware, business-friendly corporation law has resulted in the incorporation of more than 50 percent of the United States' publicly traded companies, which includes 66 percent of Fortune 500 companies.[13]

The City of Philadelphia is currently pursuing tax reform and providing tax incentives to make it more attractive to businesses and workers. Business taxes levied by the City of Philadelphia have been identified as a potential impediment for economic growth.[14] As part of the tax reform, a series of wage and business tax cuts in Philadelphia, which had been suspended during the Great Recession, were resumed in 2014, and they will continue through 2021.[15] Additionally, Commonwealth of Pennsylvania and City of Philadelphia tax incentives, such as real estate tax abatement programs and Keystone Opportunity Zones, are in place to attract new businesses to Philadelphia and are expanding existing businesses.[16] In 2016, several major companies announced intentions to remain or expand in Philadelphia with long-term lease commitments, including Aramark, Five Below, Yards, WuXi App Tec, GSI Health, Whole Foods, Target, and DiSorb.[17] Additionally, Vanguard announced plans to open a satellite office in Philadelphia, which will serve as an innovation center for the mutual fund company. International businesses moving to Philadelphia include the British global-staffing firm Frank Recruitment Group,[18] which was attracted to Philadelphia due to its universities. The firm plans to hire approximately 450 employees in Philadelphia by the end of 2018.

3.3.4 MAJOR EMPLOYERS AND FORTUNE 500 HEADQUARTERS

Table 3-3 lists the major private sector employers in the Air Trade Area, ranked by numbers of employees in the City of Philadelphia. In addition to providing an important source of local employment, the private sector employers depend on airline passenger and freight services for the continued health and expansion of their enterprises. The Airport's role as an international passenger and air cargo hub makes it an important resource for employers in the Air Trade Area. The largest private sector employer in Philadelphia is the University of Pennsylvania, with 21,193 employees, followed by the University of Pennsylvania Health System (15,956

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11 KPMG LLP, *Competitive Alternatives 2016*, March 2016, https://www.competitivealternatives.com/reports/compalt2016_report_vol1_en.pdf (accessed July 14, 2017).

12 Council for Community and Economic Research, 2016 *Cost of Living Index,* February 2017, http://coli.org/coli-release-highlights-2016-annual-average/ (accessed July 14, 2017). Data based on a survey of 281 urban areas.

13 Office of the Secretary of State, State of Delaware, *Delaware Division of Corporations 2015 Annual Report,* April 2016.

14 Greater Philadelphia Chamber of Commerce, *Roadmap for Growth: A Vision for the City of Philadelphia,* 2014.

15 City of Philadelphia, *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2016*, February 2017.

16 Keystone Opportunity Zones (KOZs) are defined, parcel-specific areas where a KOZ property owner and/or business entity can qualify for waived or reduced city and Commonwealth tax status. The KOZ program was created by the Commonwealth in 1999 to encourage investment in areas where little to no development had occurred.

17 City of Philadelphia, Office of the Mayor Press Release, February 2, 2017, https://beta.phila.gov/press-releases/mayor/mayor-kenney-delivers-second-chamber-of-commerce-address/ (accessed July 14, 2017).

18 City of Philadelphia, Office of the Mayor Press Release, February 2, 2017, https://beta.phila.gov/press-releases/mayor/mayor-kenney-delivers-second-chamber-of-commerce-address/ (accessed July 14, 2017).

employees), Children's Hospital of Philadelphia (11,895 employees), Temple University Hospital, Inc. (9,030 employees), Temple University (8,674 employees), and Comcast Corporation (8,000 employees).

Table 3-3: Top 15 Private Sector Employers in the City of Philadelphia (2016)

EMPLOYER	NUMBER OF LOCAL EMPLOYEES[1]	PRODUCT OR SERVICE
University of Pennsylvania	21,193	Education
University of Pennsylvania Health System	15,956	Health
Children's Hospital of Philadelphia	11,895	Health
Temple University Hospital, Inc.	9,030	Health
Temple University	8,674	Education
Comcast Corporation [2]	8,000	Media/IT
Thomas Jefferson University Hospitals	7,825	Health
Drexel University	6,291	Education
Aramark Corporation	6,207	Food Service
Albert Einstein Medical	5,323	Health
American Airlines	5,198	Transportation
Thomas Jefferson University	4,547	Education
Independence Blue Cross	3,554	Insurance
PNC Bank N.A.	1,883	Finance
Chubb (formerly Ace Insurance Company)	1,512	Insurance

NOTES:

1/ Employee data as of October 2016.

2/ Employment data for Comcast Corporation are an estimate and were provided by Comcast Corporation, May 2015. This estimate includes approximately 2,000 contract workers.

SOURCE: City of Philadelphia Department of Commerce, July 2017.
PREPARED BY: Ricondo & Associates, Inc., July 2017.

Each year, *Fortune* magazine ranks the top 500 U.S. public companies in terms of annual revenue. In 2017, 14 Fortune 500 companies had corporate headquarters in the Air Trade Area, including the following: Amerisource Bergen, which is a leading drug wholesaler that ranked 11th in 2016 revenues; Comcast, which is the world's largest cable and broadcasting company that ranked 31st in 2016 revenues (the company is expected to complete construction of a $1.5 billion, 60-story mixed-use Comcast Innovation and Technology Center in Philadelphia in 2018 and occupy approximately 75 percent of the tower's rentable office space[19]); and DuPont (now DowDupont, after its August 31, 2017 merger with Dow Chemical Company), which is one of the world's largest chemical companies that ranked 113th in 2016 revenues.[20] The 14 Fortune 500 companies headquartered in the Air Trade Area are listed in **Table 3-4**.

19 Comcast Corporation, "Comcast to Expand Presence with Comcast Innovation and Technology Center," January 15, 2014, http://corporate.comcast.com/news-information/news-feed/comcast-innovation-technology-center-press-release (accessed July 14, 2017); Comcast Corporation, Comcast Technology Center Fact Sheet, http://corporate.comcast.com/images/CTC-Fact-Sheet-UPDATED-5.2017.pdf (accessed November 27, 2017).

20 *Fortune*, "2017 Fortune 500 Rankings," June 7, 2017.

Table 3-4: Fortune 500 Companies Headquartered in the Air Trade Area (2017)

	COMPANY	FORTUNE 500 RANK	REVENUE ($ MILLIONS)	LOCATION	INDUSTRY
1	Amerisource Bergen	11	$146,850	Chesterbook, PA	Wholesalers: Health Care
2	Comcast	31	$80,403	Philadelphia, PA	Telecommunications
3	DuPont[1/]	113	$24,594	Wilmington, DE	Chemicals
4	Aramark	192	$14,416	Philadelphia, PA	Diversified Outsourcing Services
5	Lincoln National	207	$13,330	Radnor, PA	Insurance: Life, Health (Stock)
6	Universal Health Services	276	$10,508	King of Prussia, PA	Health Care: Medical Facilities
7	Crown Holdings[2/]	333	$8,284	Philadelphia, PA	Packaging, Containers
8	Campbell Soup	339	$7,961	Camden, NJ	Food Consumer Products
9	Genesis Healthcare	454	$5,733	Kennett Square, PA	Health Care: Medical Facilities
10	UGI	457	$5,686	King of Prussia, PA	Energy
11	Burlington Stores	463	$5,591	Burlington, NJ	Specialty Retailers: Apparel
12	Chemours[3/]	482	$5,400	Wilmington, DE	Chemicals
13	Airgas	489	$5,314	Radnor, PA	Wholesalers: Diversified
14	Toll Brothers	497	$5,170	Horsham, PA	Homebuilders

NOTES:
Based on 2016 revenue.

1/ DuPont and Dow Chemical merged on August 31, 2017, forming DowDuPont. DowDuPont maintains two corporate headquarters: Wilmington, DE and Midland, MI. Fortune 500 ranking is pre-merger, and includes DuPont revenue only.

2/ Crown Holdings sold its Northeast Philadelphia headquarters building in 2017, but will remain on the property until 2018. The company has not yet announced the location of its' new corporate headquarters.

3/ Chemours spun off from DuPont (now DowDuPont), July 1, 2015.

SOURCE: *Fortune*, "2017 Fortune 500 Rankings," June 7, 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

3.3.5 MAJOR INDUSTRY SECTORS

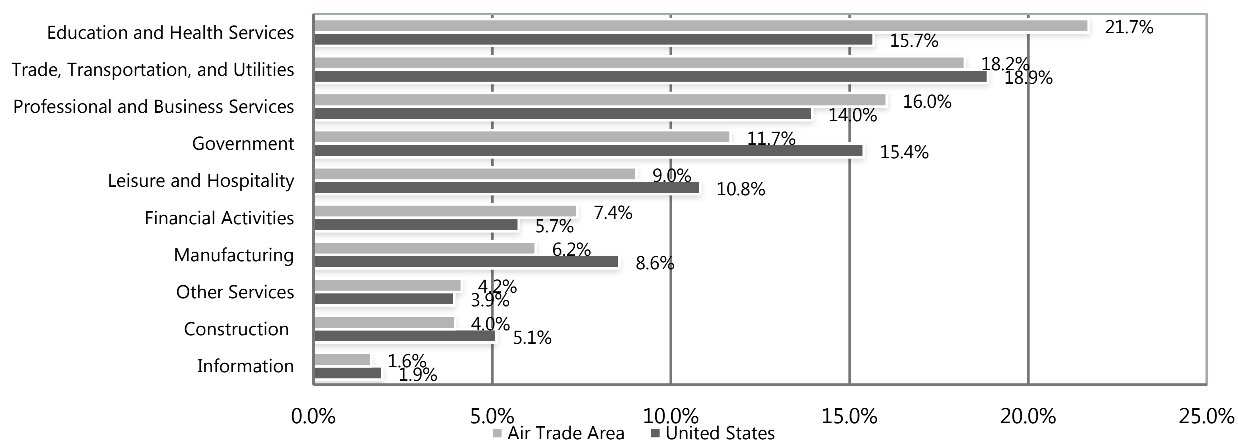
Nonagricultural employment data by major industry sector in the Air Trade Area and in the United States in CY 2007 and CY 2016 are presented in **Table 3-5**. As shown, growth in nonagricultural employment increased at a compound annual growth rate of 0.2 percent between CY 2007 and CY 2016 in the Air Trade Area, compared with a compound annual growth rate of 0.5 percent in the nation.

As shown in the table, between CY 2007 and CY 2016, national employment increased in six of the ten industry sectors, with the strongest growth occurring in the education and health services sector at a compound annual growth rate of 2.1 percent. The most significant contraction in national employment occurred in the construction, manufacturing, and information sectors, with compound annual decreases of 1.4 percent, 1.3 percent, and 1.0 percent, respectively.

Table 3-5: Nonagricultural Employment by Major Industry Sector (CY 2007 and CY 2016)

	AIR TRADE AREA			UNITED STATES		
INDUSTRY SECTOR 1/	CY 2007	CY 2016	COMPOUND ANNUAL GROWTH RATE (CY 2007-CY 2016)	CY 2007	CY 2016	COMPOUND ANNUAL GROWTH RATE (CY 2007–CY 2016)
Education and Health Services	522	623	2.0%	18,676	22,616	2.1%
Trade, Transportation, and Utilities	531	523	(0.2%)	26,630	27,233	0.2%
Professional and Business Services	431	460	0.7%	17,942	20,136	1.3%
Government	355	335	(0.6%)	22,218	22,223	0.0%
Leisure and Hospitality	223	259	1.7%	13,427	15,620	1.7%
Financial Activities	221	212	(0.4%)	8,348	8,285	(0.1%)
Manufacturing	221	179	(2.4%)	13,879	12,348	(1.3%)
Other Services	122	119	(0.3%)	5,494	5,685	0.4%
Construction 2/	128	114	(1.3%)	8,354	7,388	(1.4%)
Information 3/	58	46	(2.4%)	3,032	2,772	(1.0%)
Total/Average 4/,5/	2,812	2,870	0.2%	138,000	144,306	0.5%

INDUSTRY SECTOR SHARES OF NONAGRICULTURAL EMPLOYMENT (CY 2016)



NOTES:

1/ Employment presented in thousands.

2/ The Construction sector includes mining and logging employment.

3/ The Information sector includes communications, publishing, motion picture and sound recording, and online services.

4/ Employment data exclude agricultural workers, the military, proprietors, households, and miscellaneous employment.

5/ Numbers may not add due to rounding.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, November 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

The Air Trade Area experienced employment growth in three of the ten industry sectors between CY 2007 and CY 2016, with the greatest increase also occurring in the education and health services sector, at a compound annual growth rate of 2.0 percent. Notably, the two other sectors in which employment growth occurred in the Air Trade Area between CY 2007 and CY 2016 were also service sectors: leisure and hospitality (compound annual growth rate of 1.7 percent) and professional and business services (compound annual growth rate of 0.7

percent). Similar to the national employment trends, the largest decreases in employment in the Air Trade Area between CY 2007 and CY 2016 also occurred in the manufacturing, information, and construction sectors, at compound annual decreases of 2.4 percent, 2.4 percent, and 1.3 percent, respectively.

Data in Table 3-5 show that the Air Trade Area has a diversified employment base that is expected to provide a stable foundation for the region to withstand periodic downturns in the business cycle.

3.3.6 AIR TRADE AREA EDUCATION AND HEALTH SERVICES INDUSTRY SECTOR

Education and health services are two of the largest service-related industries in the Air Trade Area. In CY 2016, the education and health services sector employed approximately 622,700 workers in the Air Trade Area, or 21.7 percent of total nonagricultural employment in the area, which was significantly higher than the 15.7 percent of the total employment in these services in the nation. As presented in Table 3-5, education and health services employment in the Air Trade Area increased at a compound annual growth rate of 2.0 percent between CY 2007 and CY 2016, compared with a compound annual growth rate of 2.1 percent in the nation over the same period. The education and health services sector was not severely affected by the recession of the late 2000s, and, due largely to consistently strong employment growth in the healthcare and social services subsector, employment growth in the super sector was positive throughout the recessionary period.

Education services accounted for approximately 21.0 percent of the education and health services super sector employment, or 129,400 workers. With approximately 444,000 full- and part-time students enrolled in 104 degree-granting institutions in the Air Trade Area, higher education is a significant employment sector. These institutions of higher education include the University of Pennsylvania, Temple University, and Drexel University, which are listed as major employers in the Air Trade Area in Table 3-3. These universities provide the business community with a large and diverse labor pool for the knowledge-based industries concentrated in the area, particularly the life sciences industry. Between CY 2007 and CY 2016, employment in education in the Air Trade Area increased at a compound annual growth rate of 1.2 percent, compared with 2.1 percent compound annual growth in the nation.

In addition to educating health professionals in six medical schools, three pharmacy schools, and two dental schools, a significant portion of the Air Trade Area's population is employed in nearly 200 hospitals and 15 major health systems located within the area. Many of the Air Trade Area's major employers listed in Table 3-3 are providers of healthcare services, including Jefferson Health System, University of Pennsylvania Health System, Christiana Care Health System, Main Line Health, and Temple University Health System. In total, the healthcare and social assistance services subsector provided approximately 79 percent, or 493,300 workers, of the total health and education services super sector employment in the Air Trade Area in CY 2016. Health services industry employment in the Air Trade Area increased at a compound annual growth rate of 2.2 percent between CY 2007 and CY 2016, compared with 2.2 percent nationwide employment growth in the industry over the same period. The health services sector has a close relationship with the life sciences sector, as most of the goods and services produced by the life sciences are inputs to provide health services, and healthcare information technology, medical devices, and pharmaceuticals are all major local industries that produce these life sciences goods and services inputs.

Significant expansion is currently occurring in the healthcare industry in the Air Trade Area, with additional healthcare-related development anticipated in the near future. University of Pennsylvania Health System began construction of a new $1.5 billion hospital tower in September 2016. The new tower will be built in phases over several years with planned occupancy in 2021. It will be connected to the existing Hospital of the University of Pennsylvania by a covered walkway and it will include approximately 50 operating rooms, a relocated emergency room, and 500 new patient beds.[21,]

3.3.7 AIR TRADE AREA TOURISM

There were approximately 42 million domestic visitors to Greater Philadelphia (consisting of the five-county region that includes Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties) in CY 2016, which represents a 2.4 percent increase compared to CY 2015 domestic visitors (approximately 41 million). The CY 2016 domestic visitors data represents the seventh consecutive annual increase in domestic visitors for Greater Philadelphia.[22] Leisure travelers made up approximately 88 percent of the 42 million domestic visitors in 2016, while business travelers made up the remaining 12 percent. Based on a survey by the U.S. Department of Commerce, International Trade Administration, Office of Tourism Industries, approximately 680,000 visitors from overseas (excluding Canada and Mexico) selected Philadelphia as their destination city in CY 2015 (most recent data available), making Philadelphia the 16th most popular U.S. destination for overseas visitors to the United States.[23] Visitors (domestic and international) to Philadelphia generated approximately $30 million daily in economic impact for the region—a total of approximately $11 billion annually in CY 2016 (most recent data available).[24]

The Air Trade Area's travel and tourism attractions include a variety of cultural centers, museums, theaters, historical sites, annual events, sports, and other attractions. As the birthplace of the United States' democracy, Philadelphia has many historical attractions that draw visitors every year, including the Liberty Bell, Independence Hall, Carpenters' Hall, the home of Betsy Ross, and the nation's oldest residential street, Elfreth's Alley. The Philadelphia Art Museum is the third largest art museum in the country and other museums in the area include the Rodin Museum, the Barnes Collection, the Philadelphia Mint, the National Museum of American Jewish History, and the new Museum of the American Revolution. Major spectator sports in the Air Trade Area include professional baseball, basketball, football, hockey, and soccer teams. These regional attractions and activities not only complement the quality of life of Air Trade Area residents but also attract visitors to the area that generate economic activity and additional travel demand. Lonely Planet named Philadelphia #1 in its Best in the US 2016 list, a listing of top domestic destinations to visit, and Travel and Leisure magazine named the city one of the Best Places to Travel in 2017.[25,26] Philadelphia is also the United States' first designated United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage City.

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21 Philadelphia Business Journal, "Transformations: Penn Medicine Beginning Work on a New $1.5 Billion Hospital Building", January 16, 2017 http://www.bizjournals.com/philadelphia/news/2017/01/19/transformations-penn-medicine-beginning-work-on-a.html (accessed July 14, 2017).

22 Visit Philadelphia, "2017 Annual Report," http://www.visitphilly.com/visit-philadelphia-annual-report/ (accessed July 14, 2017).

23 U.S. Department of Commerce, International Trade Administration, Office of Tourism Industries, July 2016; http://travel.trade.gov/outreachpages/download_data_table/2015_States_and_Cities.pdf (accessed July 14, 2017).

24 http://www.visitphilly.com/about/ (accessed October 10, 2017).

25 http://www.lonelyplanet.com/news/2016/02/10/philadelphia-tops-lonely-planets-list-of-best-places-to-go-in-usa-2016/ (accessed July 14, 2017).

26 http://www.travelandleisure.com/trip-ideas/best-places-to-travel-in-2017#philadelphia-pennsylvania (accessed July 14, 2017).

3.3.7.1 Convention Facilities and Special Events

Conventions are also an important source of visitors to Greater Philadelphia. In Cvent's 2016 ranking of the top 50 U.S. meeting destinations in the United States, Philadelphia ranked 21st.[27] The primary convention center in the Air Trade Area is the Pennsylvania Convention Center, a 2.3 million square foot facility located in central Philadelphia. Opened in 1993, the convention center was expanded in 2011, at a cost of $786 million, resulting in a 62 percent increase in size.[28,29] Nearly 250 events are hosted each year at the Pennsylvania Convention Center, more than 50 percent of which are life sciences-related.[30] Convention growth has partially contributed to the 63 percent increase in overnight business travel (and the 11 percent increase in day business travel) to Greater Philadelphia between 1997 and 2016.[31] Recent special events drawing visitors to Philadelphia include the 2016 Democratic National Convention and the 2017 National Football League (NFL) draft. The 2016 Democratic National Convention drew over 54,000 visitors and had an estimated economic impact of $230.9 million, and the 2017 NFL draft drew nearly 200,000 visitors and had an estimated economic impact of $86 million.[32]

3.4 Economic Outlook

3.4.1 SHORT-TERM ECONOMIC OUTLOOK

The U.S. economy expanded in CY 2016, with real GDP growth of 1.5 percent. By the third quarter 2017, real GDP growth had accelerated to 3.0 percent.[33] According to the most recently published (September 2017) survey of business economists by the National Association for Business Economics (NABE), the median forecast for real GDP growth is a more measured 2.2 percent for CY 2017.[34] From the same survey, the median real GDP growth forecast for CY 2018 increases to 2.4 percent. Meanwhile, those surveyed by NABE expect the unemployment rate to decrease in the short-term. In CY 2016, the annual average U.S. civilian unemployment rate was 4.9 percent. The median forecast, according to the survey, for the annual average U.S. civilian unemployment rate is 4.4 percent for CY 2017, which is higher than the most current (October 2017) seasonally adjusted monthly U.S. civilian unemployment rate reported by the Bureau of Labor Statistics (4.1 percent). From the same survey, for CY 2018, the median forecast for the annual average U.S. civilian unemployment rate is even lower (4.2 percent). Nonagricultural employment increased by an average of 187,000 jobs per month in CY 2016 and 169,000 jobs per month in the first ten months of CY 2017.[35] The median forecast for employment

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27 Cvent, Top 50 Meeting Destinations in the United States, http://www.cvent.com/en/supplier-network/top-50/2016-top-destinations-us.shtml (accessed July 14, 2017).

28 https://www.paconvention.com/about/facility (accessed July 14, 2017).

29 http://www.philly.com/philly/business/Philadelphia_Convention_Center_Expansion.html (accessed July 14, 2017).

30 http://www.discoverphl.com/wp-content/uploads/2016/09/gplsc_fact_sheet.pdf (accessed July 14, 2017).

31 http://www.visitphilly.com/about/ (accessed October 10, 2017.

32 Philadelphia Convention & Visitors Bureau, *2016 Annual Report*, April 2017, http://www.discoverphl.com/wp-content/uploads/2017/04/PHLCVB_Annual_Report_2016_SPREADS.pdf (accessed July 14, 2017).

33 U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts Gross Domestic Product: Third Quarter 2017 (Advance Estimate)*, https://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm (accessed November 27, 2017).

34 National Association for Business Economics, *NABE Outlook*, September 2017.

35 U.S. Department of Commerce, Bureau of Labor Statistics, *Current Employment Statistics Highlights–October 2017*, https://www.bls.gov/web/empsit/ceshighlights.pdf (accessed November 28, 2017).

growth is 178,000 jobs per month in CY 2017 and 160,000 jobs per month in CY 2018.

3.4.2 LONG-TERM ECONOMIC OUTLOOK

As described in more detail in Section 4.6 of this Report, the methodologies used in analyzing and developing forecasts of enplaned passengers at the Airport included (among other methodologies) statistical linear regression modeling, in which local and national socioeconomic factors are used as the independent variables and passenger demand is used as the dependent variable. Socioeconomic factors used in these analyses included population, personal income, per capita personal income, GRP and GDP, and employment.

Projected economic variables indicate that the Air Trade Area will remain a destination that attracts both business and tourist visitors, which positively affects the demand for future inbound airline travel. Projected Air Trade Area economic variables further support the continued growth in numbers of local outbound passengers. **Table 3-6** presents selected CY 2016 and CY 2023 economic variables for the Air Trade Area and the United States, as projected by Woods & Poole Economics, Inc. Growth expectations for these variables in the Air Trade Area are generally equivalent to those for the United States, and they indicate the ongoing capacity of the Air Trade Area to continue generating demand for airline travel during the Projection Period.

Table 3-6: Projected Select Economic Variables (CY 2016 and CY 2023)

VARIABLE 1/	CY 2016	CY 2023	CAGR CY 2016–CY 2023 2/
Air Trade Area Population	6,093,548	6,291,877	0.5%
United States Population	324,160,750	345,864,633	0.9%
Air Trade Area Total Personal Income ($ billion)	$321.61	$371.65	2.1%
United States Total Personal Income ($ billion)	$14,469.64	$17,128.01	2.4%
Air Trade Area per Capita Personal Income	$52,778	$59,068	1.6%
United States per Capita Personal Income	$44,637	$49,522	1.5%
Air Trade Area Gross Regional Product ($ billion)	$369.16	$419.88	1.9%
United States Gross Domestic Product ($ billion)	$16,923.96	$19,622.54	2.1%
Air Trade Area per Capita Gross Regional Product	$60,583	$66,733	1.4%
United States per Capita Gross Domestic Product	$52,209	$56,735	1.2%
Air Trade Area Total Employment (jobs) 3/	3,688,597	3,988,296	1.1%
United States Total Employment (jobs) 3/	193,022,608	212,627,009	1.4%

NOTES:

1/ Monetary amounts are in 2009 U.S. dollars.

2/ CAGR = Compound Annual Growth Rate

3/ Employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

SOURCE: Woods & Poole Economics, Inc., *2017 Complete Economic and Demographic Data Source*, May 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

3.4.3 CONCLUSIONS

The Air Trade Area population was nearly 6.1 million in CY 2016, and it is projected to increase to more than 6.3 million by CY 2023.

Per capita personal income in the Air Trade Area was higher than in the United States between CY 2007 and CY 2016. The Air Trade Area's per capita personal income in CY 2016 ($52,778) was 18.2 percent higher than per capita personal income in the United States ($44,637). Per capita personal income in the Air Trade Area is projected to increase at a compound annual growth rate of 1.6 percent between CY 2016 and CY 2023, which is comparable to the projected compound annual growth rate of 1.5 percent for the United States.[36]

Per capita GRP in the Air Trade Area was higher than per capita GDP in the United States between CY 2007 and CY 2016. Per capita GRP in the Air Trade Area and the United States increased at a compound annual growth rate of 0.7 percent between CY 2007 and CY 2016. Per capita GRP in the Air Trade Area is projected to increase at a compound annual growth rate of 1.4 percent between CY 2016 and CY 2023, which is slightly higher than the rate projected for the United States (1.2 percent) over the same period.

Between CY 2007 and CY 2016, the Air Trade Area's labor force grew at a compound annual growth rate of approximately 0.5 percent. The United States' labor force increased at a compound annual growth rate of approximately 0.4 percent during the same period.

In terms of percentages of industry sector shares, CY 2016 employment in the following industry sectors in the Air Trade Area exceeded employment in the United States: education and health services, professional and business services, financial activities, and other services.

The data cited in this chapter support the conclusion that the Air Trade Area has a large and diverse economy that is capable of supporting increased airline travel demand at the Airport through the Projection Period (ending FY 2023).

[36] Amounts are in 2009 dollars.

4. Air Traffic and Aviation Demand

A national perspective of the Airport, the airlines serving the Airport, historical Airport activity, factors affecting aviation demand, and forecast aviation demand are discussed in this chapter.

4.1 National Perspective of the Airport

The Airport was ranked 19th in the nation in terms of domestic O&D passengers in CY 2016 based on U.S. Department of Transportation (DOT) survey data.[1] Approximately 30.2 million total passengers were enplaned and deplaned at the Airport in CY 2016 (or approximately 82,400 average daily passengers), compared to approximately 31.4 million passengers (or approximately 86,100 average daily passengers) enplaned and deplaned at the Airport in CY 2015. According to Airport Council International (ACI) North America CY 2016, the Airport ranked 16th nationwide in total aircraft operations, with approximately 394,000 takeoffs and landings; 19th nationwide in total passengers; and 18th nationwide in total cargo weight. In FY 2017, the total number of passengers at the Airport decreased 5.6 percent compared with the number enplaned in FY 2016, largely attributed to capacity reductions and schedule restructuring undertaken by American, as discussed further in Section 4.6.

The Airport's competitive position for airline service is enhanced by: (1) its prime geographic location as an East Coast transatlantic gateway, (2) the presence of a well-developed cargo hub, (3) the size of its O&D market, and (4) limited regional airport competition. These attributes make the Airport an attractive location for a major airline hub. American, the world's largest airline in terms of total operating seat capacity, operates a hub at the Airport. American's use of the Airport as a hub is described in Section 4.5.

1 The latest full calendar year data available at the time this Report was prepared.

4.2 Airlines Serving the Airport

As of September 2017, 21 U.S.-flag airlines are scheduled to provide passenger service at the Airport in CY 2017, including five legacy/mainline airlines,[2] four low-cost airlines, and 12 regional airlines providing service for various legacy/mainline airlines. In addition, five foreign-flag airlines provided scheduled passenger service at the Airport and two all-cargo airlines provided scheduled cargo service at the Airport. **Table 4-1** lists the airlines serving the Airport during CY 2017, including seasonal service.

Table 4-1: Airlines Serving the Airport (CY 2017)

LEGACY/MAINLINE U.S. AIRLINES (5)	LOW-COST AIRLINES (4)	REGIONAL AIRLINES (12)	ALL-CARGO AIRLINES (2)
Alaska Airlines	Frontier Airlines	Air Wisconsin (dba American Eagle)	FedEx
American Airlines	JetBlue Airways	Compass Airlines (dba Delta Connection)	UPS Air Cargo
Delta Air Lines	Southwest Airlines	Endeavor Air (dba Delta Connection)	
United Airlines	Spirit Airlines	Envoy Air (dba American Eagle)	
Virgin America		ExpressJet Airlines (dba Delta Connection and United Express)	
		GoJet Airlines (dba Delta Connection and United Express)	
		Mesa Airlines (dba United Express)	
FOREIGN AIRLINES (5)		Piedmont Airlines (dba American Eagle)	
Air Canada		PSA Airlines (dba American Eagle)	
British Airways		Republic Airlines (dba American Eagle and United Express)	
Lufthansa		SkyWest Airlines (dba Delta Connection and United Express)	
Qatar Airways		Trans States Airlines (dba United Express)	
Icelandair			

NOTE: dba = Doing Business As

SOURCES: Innovata, September 2017.
PREPARED BY: Ricondo & Associates, Inc., September 2017.

2 American Airlines and US Airways were granted a single operating certificate in April 2015.

The Airport is served by a large and relatively stable scheduled passenger airline base. **Table 4-2** lists the scheduled U.S.-flag airlines that have served the Airport at any time since CY 2008. Three of the primary legacy airlines and several of the low-cost airlines have served the Airport throughout this period. Specific factors concerning the scheduled passenger airline base serving the Airport are provided below:

- American accounts for the largest market share at the airport. In FY 2017, American enplaned approximately 10.4 million passengers, or 70.0 percent of all enplaned passengers at the Airport. The airline provided service between the Airport and 90 domestic and 35 international destinations in FY 2017.[3] In 2013, American and US Airways merged into the American Airlines Group, representing the parent companies of both airlines and the merged airlines received a single operating certificate on April 8, 2015.[4] US Airways, and subsequently American, has been the dominate carrier at the Airport since the 1980s.
- Southwest Airlines (Southwest) accounts for the second highest market share at the Airport after American. In FY 2017, Southwest enplaned approximately 1.2 million passengers at the Airport, or 7.8 percent of total Airport enplaned passengers.
- In FY 2017, Delta Air Lines (Delta) and its Delta Connection affiliates enplaned approximately 1.0 million passengers at the Airport, or 7.0 percent of total Airport enplaned passengers.
- Other U.S.-flag airlines providing scheduled service at the Airport include Spirit Airlines (Spirit), JetBlue Airways, Alaska Airlines, and Frontier Airlines. Foreign-flag airlines serving the Airport include Air Canada, British Airways, Lufthansa, and Qatar Airways.
- A total of eight scheduled passenger airlines, as shown in Table 4-2, provided service at the Airport for the entire period between CY 2008 and CY 2016. Since CY 2008, six additional passenger airlines initiated service and continue to serve the Airport.

In addition to passenger airlines serving the Airport, UPS operates a major Air Hub at the Airport and uses the facility as a trans-shipment point for cargo. The Air Hub is the fourth largest air cargo operation in the UPS network.[5]

Exhibit 4-1 presents the market shares, as measured by numbers of FY 2017 total enplaned passengers, at the Airport. In FY 2017, American, including its regional affiliates, accounted for 70.0 percent of passengers enplaned at the Airport.

[3] Source: Innovata, October 2017

[4] For the purposes of this Report, historical data for US Airways and American Airlines are combined.

[5] Source: U.S. Department of Transportation T-100, October 2017; rankings are based on CY 2016 data.

Table 4-2: Historical Scheduled Passenger Airline Base (Calendar Years)

AIRLINE [1/]	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017[2/]
Air Canada	●	●	●	●	●	●	●	●	●	●
American Airlines [3/]	●	●	●	●	●	●	●	●	●	●
British Airways	●	●	●	●	●	●	●	●	●	●
Delta Air Lines	●	●	●	●	●	●	●	●	●	●
Frontier Airlines [4/]	●	●	●	●	●	●	●	●	●	●
Lufthansa	●	●	●	●	●	●	●	●	●	●
Southwest Airlines [5/]	●	●	●	●	●	●	●	●	●	●
United Airlines	●	●	●	●	●	●	●	●	●	●
Alaska Airlines					●	●	●	●	●	●
JetBlue Airways						●	●	●	●	●
Spirit Airlines						●	●	●	●	●
Qatar Airways							●	●	●	●
Virgin America [6/]					●	●	●			●
Icelandair										●
Airlines No Longer Serving the Airport										
Caribbean Airlines				●	●					
Air Jamaica	●	●	●	●						
USA 3000	●	●	●	●						
Air France	●	●								

NOTES:

1/ Where applicable, includes affiliated airlines.

2/ Does not include Aer Lingus. Service was announced in October 2017 to begin in March 2018.

3/ On February 14, 2013, American Airlines and U.S. Airways announced plans to merge. The merger was completed on December 9, 2013, and a Single Operating Certificate was issued on April 8, 2015. Information on the two airlines is combined in this table.

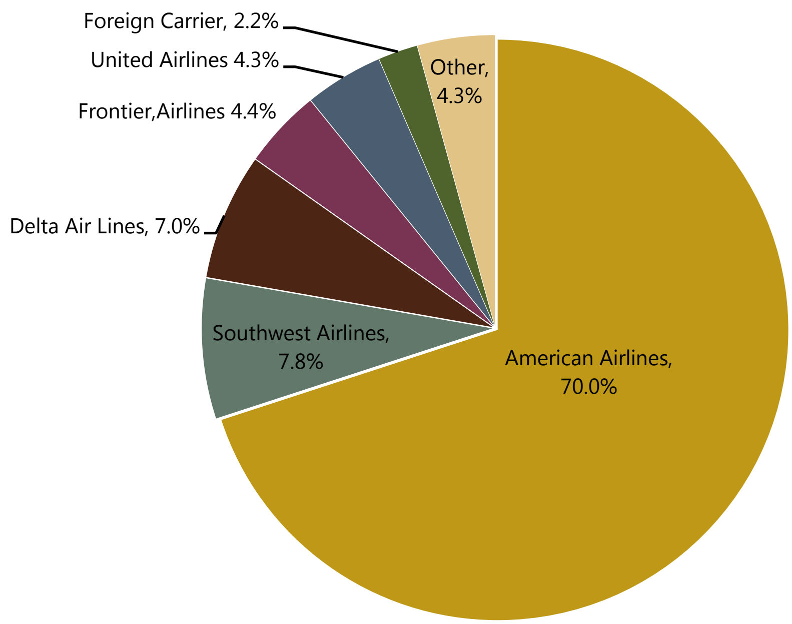
4/ Midwest Express merged with Frontier Airlines in 2010. Information on the two airlines is combined in this table.

5/ Southwest Airlines and AirTran Airways merged on May 1, 2011. Information on the two airlines is combined in this table.

6/ Virgin America merged with Alaska Airlines in December 2016. The two airlines plan to maintain separate operations through 2018.

SOURCES: Innovata, August 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Exhibit 4-1: Airline Market Shares (FY 2017)



NOTE: Measured by numbers of enplaned passengers. Includes regional affiliates where applicable. Numbers may not add due to rounding.
SOURCE: City of Philadelphia records, August 2017.
PREPARED BY: Ricondo & Associates, Inc., August 2017.

4.3 Historical Airport Activity

The following sections present a review of historical passenger activity and airline service at the Airport.

4.3.1 ENPLANED PASSENGER ACTIVITY AND AIRLINE OPERATIONS

Table 4-3 presents historical numbers of enplaned passengers at the Airport and in the United States in FY 2006 through FY 2017. Between FY 2008 and FY 2017, the number of enplaned passengers at the Airport decreased an average of 0.09 percent per year, while the total number of U.S. enplaned passengers increased an average of 0.9 percent per year.

In FY 2009, the number of enplaned passengers at the Airport decreased 4.3 percent as a result of the global economic recession, similar to the rest of the United States, and continued to decrease in FY 2010. In response to depressed demand and increased fuel costs, airlines restricted seat capacity through industry consolidation and aircraft retirements to generate revenues through higher airfares, rather than through increased passenger numbers. This industry-wide emphasis on cost control and capacity cuts is referred to as capacity discipline.

Table 4-3: Historical Enplaned Passengers

FISCAL YEAR	AIRPORT	AIRPORT INCREASE/ (DECREASE)	UNITED STATES TOTAL	U.S. INCREASE/ (DECREASE)	AIRPORT SHARE OF U.S. PASSENGERS
2008	16,052,973		769,541,000	1.9%	2.1%
2009	15,362,743	(4.3%)	709,137,000	(7.8%)	2.2%
2010	15,193,741	(1.1%)	708,000,000	(0.2%)	2.1%
2011	15,611,583	2.8%	728,880,000	2.9%	2.1%
2012	15,344,126	(1.7%)	736,614,000	1.1%	2.1%
2013	15,215,885	(0.8%)	738,687,000	0.3%	2.1%
2014	15,316,053	0.7%	750,679,000	1.6%	2.0%
2015	15,312,738	0.0%	775,675,000	3.3%	2.0%
2016	15,683,558	2.4%	815,066,000	5.1%	1.9%
2017	14,806,882	(5.6%)	834,239,000	2.4%	1.8%
Compound Annual Growth Rate					
2008 - 2010	-2.7%		-4.1%		
2010 - 2012	0.5%		2.0%		
2012 - 2017	-0.7%		2.5%		
2008 - 2017	-0.9%		0.9%		

NOTE: For Fiscal Years ended June 30.

SOURCES: City of Philadelphia; U.S. Department of Transportation August 2017, Bureau of Transportation Statistics (U.S. total), October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

The number of enplaned passengers at the Airport increased 2.8 percent in FY 2011, nearly the same increase as in the United States (2.9 percent). American increased seat capacity at the Airport, enplaning approximately 500,000 more passengers than in the prior year. In addition, Frontier Airlines initiated service at the Airport in FY 2011. Despite continued economic recovery, the number of enplaned passengers at the Airport decreased 1.7 percent in FY 2012 and by a further 0.8 percent in FY 2013, while the number of U.S. enplaned passengers increased 1.1 percent and 0.3 percent in those years. Southwest decreased seat capacity from approximately 2.9 million seats in FY 2011 to approximately 1.9 million seats in FY 2012 (a decrease of 35.2 percent) due to its decision to reassign capacity from the Airport to other markets. In FY 2013, Southwest eliminated an additional 400,000 seats from service at the Airport, or 21.1 percent of its total seat capacity at the Airport. These decreases were partially offset by JetBlue Airways and Spirit, which both initiated service at the Airport in FY 2013.

In FY 2014, the number of enplaned passengers at the Airport increased 0.7 percent. While Southwest continued capacity reductions at the Airport in FY 2014, American increased its number of enplaned passengers by more than 200,000. JetBlue and Spirit also increased their numbers of enplaned passengers at the Airport in FY 2014, and Qatar Airways initiated service between the Airport and Doha, Qatar (DOH) in April 2014. The total number of enplaned passengers at the Airport remained flat at approximately 15.3 million in FY 2015. American's number of enplaned passengers decreased slightly in FY 2015 as the airline continued its merger integration process. Virgin America discontinued service at the Airport in October 2014. These decreases were offset by Frontier, which increased its number of enplaned passengers from approximately 25,000 to 191,000 during FY 2015.

In FY 2016, the number of enplaned passengers at the Airport increased 2.4 percent, from approximately 15.3 million to 15.7 million. At the same time, the number of enplaned passengers nationwide increased 5.1 percent. While the number of American's enplaned passengers at the Airport decreased approximately 326,000 in FY

2016 because of capacity reductions, other airlines expanded service at the Airport. The number of passengers enplaned by Frontier increased significantly, from approximately 191,000 enplaned passengers in FY 2015 to approximately 554,000 enplaned passengers in FY 2016. Additionally, the numbers of passengers enplaned by Delta and Southwest increased by approximately 74,000 each in FY 2016, and the number of passengers enplaned by United increased by approximately 29,000.

In FY 2017, the number of enplaned passengers at the Airport decreased 5.6 percent to 14.8 million compared with the number enplaned during the same period of the prior year. As discussed further in Section 4.6, American implemented initiatives in FY 2017 to change its hub operation at the Airport, which has resulted in decreased seat capacity and aircraft operations.

Table 4-4 presents historical trends in domestic and international enplaned passenger activity at the Airport in FY 2008 through FY 2017.

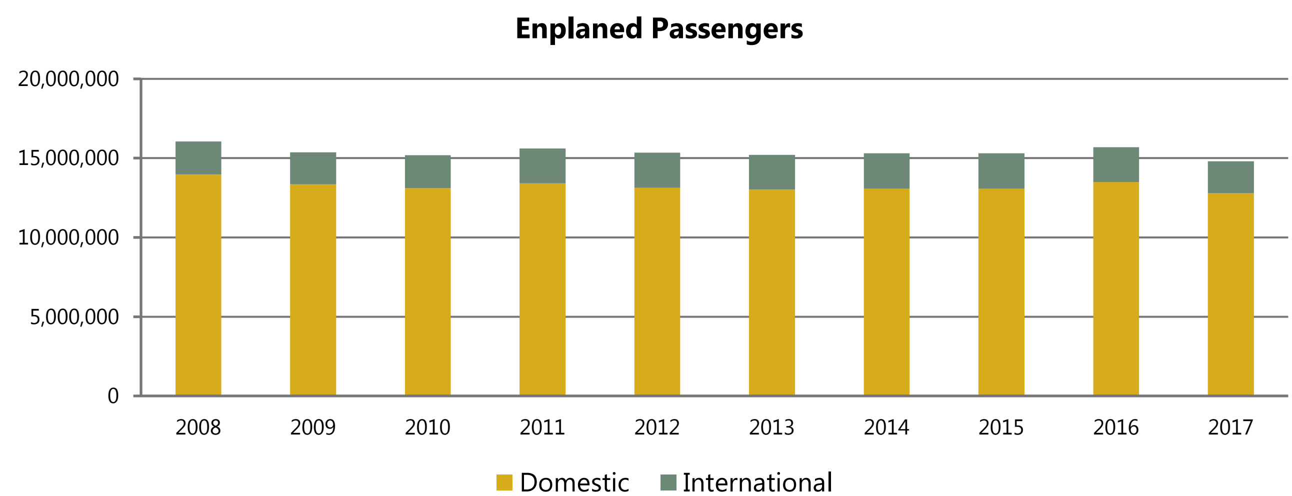
As shown in Table 4-4, the highest international share (14.7 percent) of total Airport enplaned passengers occurred in FY 2014 and the lowest share (13.0 percent) occurred in FY 2008. The number of international enplaned passengers decreased 1.8 percent in FY 2016 and 7.7 percent in FY 2017. The decrease in international enplaned passengers was primarily the result of the discontinuation of service to Edinburgh, Scotland (EDI) and the elimination of service to Tel Aviv, Israel (TLV), and the reduction of international seat capacity by American to Germany, as the airline reoriented network capacity to partner airline hubs. These reductions were offset, in part, by a capacity increase by American to London, England (LHR), a critical **one**world alliance hub that provides access to a large local passenger base as well as to passengers connecting from other airports. Additional international capacity growth by other airlines helped partially offset the effect of capacity reductions that occurred in FY 2017. These include Air Canada which increased service to Montreal, Canada (YUL) and Icelandair which launched nonstop service to Reykjavik, Iceland (KEF) in May 2017.

Total departing seats are scheduled to increase 2.7 percent in FY 2018 compared to FY 2017.[6] American has announced new nonstop service from the Airport to Des Moines, Iowa (DSM), Madison Wisconsin (MSN), Omaha, Nebraska (OMA) and San Antonio, Texas (SAT) beginning in Spring 2018. Additionally, Virgin America resumed nonstop service to Los Angeles (LAX) and San Francisco (SFO), which had been suspended in October 2014. Total departing seats to U.S. destinations increase 2.7 percent in FY 2018.[6] Scheduled departing seats to international destinations are expected to increase 2.8 percent in FY 2018 as American plans to resume daily service to Zurich, Switzerland (ZRH) in March 2018 and launch seasonal service to Budapest, Hungary (BUD) and Prague, Czech Republic (PRG) in May 2018.[6] Additionally, Aer Lingus announced in October 2017 service between the Airport and Dublin, Ireland (DUB) will begin in March 2018.

6 Source: Innovata, November 29, 2017.

Table 4-4: Historical Domestic and International Enplaned Passengers

FISCAL YEAR	DOMESTIC PASSENGERS	ANNUAL INCREASE/ (DECREASE)	INTERNATIONAL PASSENGERS	ANNUAL INCREASE/ (DECREASE)	TOTAL ENPLANED PASSENGERS	ANNUAL INCREASE/ (DECREASE)	INTERNATIONAL PASSENGER SHARE OF TOTAL
2008	13,971,056	0.8%	2,081,917	4.8%	16,052,973	1.3%	13.0%
2009	13,357,446	(4.4%)	2,005,297	(3.7%)	15,362,743	(4.3%)	13.1%
2010	13,113,239	(1.8%)	2,080,502	3.8%	15,193,741	(1.1%)	13.7%
2011	13,407,158	2.2%	2,204,425	6.0%	15,611,583	2.8%	14.1%
2012	13,134,251	(2.0%)	2,209,875	0.2%	15,344,126	(1.7%)	14.4%
2013	13,021,515	(0.9%)	2,194,370	(0.7%)	15,215,885	(0.8%)	14.4%
2014	13,059,804	0.3%	2,256,249	2.8%	15,316,053	0.7%	14.7%
2015	13,072,574	0.1%	2,240,164	(0.7%)	15,312,738	(0.0%)	14.6%
2016	13,484,253	3.1%	2,199,305	(1.8%)	15,683,558	2.4%	14.0%
2017	12,775,863	(5.3%)	2,031,019	(7.7%)	14,806,882	(5.6%)	13.7%
Compound Annual Growth Rate							
2008 - 2010	-3.1%		0.0%		-2.7%		
2010 - 2012	0.1%		3.1%		0.5%		
2012 - 2017	-0.6%		-1.7%		-0.7%		
2008 - 2017	-1.0%		-0.3%		-0.9%		



NOTE: For Fiscal Years ended June 30.

SOURCE: City of Philadelphia, August 2017.

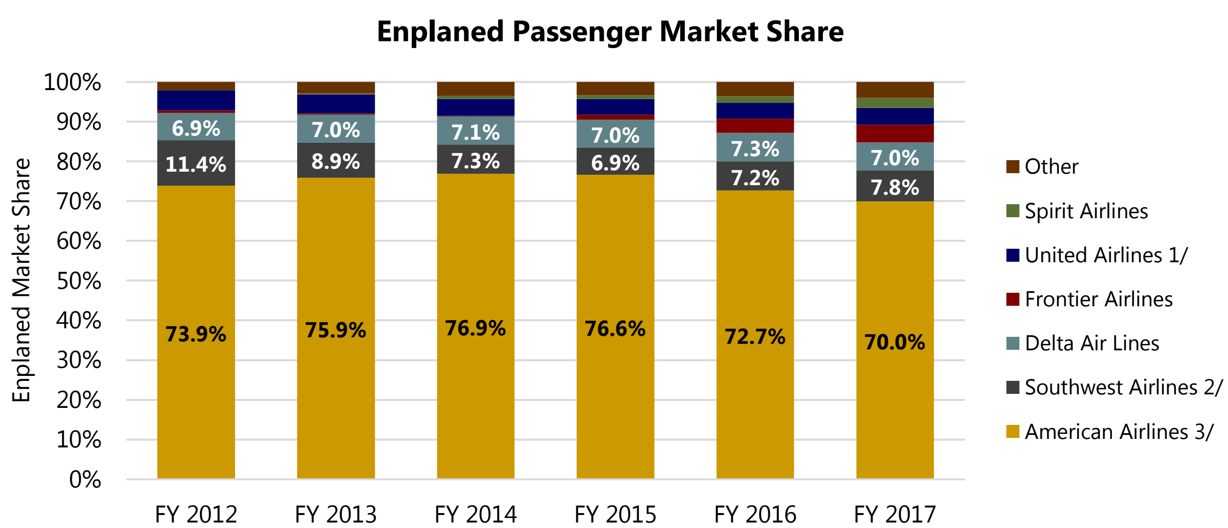
PREPARED BY: Ricondo & Associates, Inc., November 2017.

4.3.2 AIRLINE SERVICE

Table 4-5 presents the historical shares of enplaned passengers at the Airport by airline in FY 2012 through FY 2017. These shares have been influenced by many of the changes discussed in Section 4.3.1. In each year, American maintained a market share of at least 70.0 percent. In FY 2012 through FY 2014, Southwest (including AirTran) had the second highest market share; Southwest's market share decreased from 11.4 percent in FY 2012 to 8.9 percent in FY 2013 and to 7.3 percent in FY 2014. Southwest's market share declined further to 6.9 percent in FY 2015 as the airline continued to allocate system-wide capacity to support growth at Reagan Washington National Airport (DCA), LaGuardia Airport (LGA), and Dallas Love Field (DAL). Southwest's market share of enplaned passengers at the Airport increased to 7.2 percent in FY 2016 and 7.8 percent in FY 2017 as the airline increased capacity at the Airport. **Exhibit 4-2** depicts the airline market shares of enplaned passengers at the Airport for FY 2012 through FY 2017.

In FY 2017, American enplaned approximately 10.4 million passengers at the Airport, or 70.0 percent of total Airport enplaned passengers. Southwest, the second busiest airline serving the Airport in FY 2017 in terms of the number of enplaned passengers, enplaned approximately 1.2 million passengers, or 7.8 percent of the Airport total.

Exhibit 4-2: Enplaned Passenger Market Shares (FY 2012 and FY 2017)



NOTES: For Fiscal Years ended June 30. Includes regional affiliated airlines, as applicable.

1/ United Airlines and Continental Airlines merged in 2010. Historical numbers of enplaned passengers for these airlines are combined.

2/ Southwest Airlines and AirTran Airways merged in 2011. Historical numbers of enplaned passengers for these airlines are combined in this table.

3/ American Airlines and US Airways merged in 2013. Historical numbers of enplaned passengers for these airlines are combined,

SOURCE: City of Philadelphia records, August 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

Table 4-5: Historical Total Enplaned Passengers by Airline

	FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017	
AIRLINE 1/	**ENPLANED PASSENGERS**	**SHARE**	**ENPLANED PASSENGERS**	**SHARE**	**ENPLANED PASSENGERS**	**SHARE**	**ENPLANED PASSENGERS**	**SHARE**	**ENPLANED PASSENGERS**	**SHARE**	**ENPLANED PASSENGERS**	**SHARE**
American Airlines 2/	11,346,493	73.9%	11,549,729	75.9%	11,781,929	76.9%	11,723,633	76.6%	11,397,694	72.7%	10,361,644	70.0%
Southwest Airlines 3/	1,752,816	11.4%	1,350,819	8.9%	1,116,209	7.3%	1,059,963	6.9%	1,133,501	7.2%	1,152,350	7.8%
Delta Air Lines	1,063,169	6.9%	1,059,638	7.0%	1,093,845	7.1%	1,071,866	7.0%	1,145,534	7.3%	1,040,270	7.0%
Frontier Airlines	92,981	0.6%	51,256	0.3%	24,891	0.2%	190,893	1.2%	554,469	3.5%	648,505	4.4%
United Airlines 4/	781,795	5.1%	735,940	4.8%	645,520	4.2%	611,799	4.0%	640,419	4.1%	644,036	4.3%
Spirit Airlines	--	0.0%	30,747	0.2%	129,417	0.8%	142,411	0.9%	245,438	1.6%	361,782	2.4%
JetBlue Airways	--	0.0%	15,502	0.1%	116,655	0.8%	123,511	0.8%	183,285	1.2%	205,817	1.4%
British Airways	114,185	0.7%	110,271	0.7%	112,422	0.7%	120,461	0.8%	128,290	0.8%	118,177	0.8%
Air Canada	52,515	0.3%	53,728	0.4%	56,524	0.4%	56,038	0.4%	61,797	0.4%	77,018	0.5%
Lufthansa	51,403	0.3%	54,906	0.4%	63,334	0.4%	70,438	0.5%	69,405	0.4%	73,251	0.5%
Alaska Airlines	2,790	0.0%	47,617	0.3%	54,569	0.4%	56,514	0.4%	59,076	0.4%	64,154	0.4%
Qatar Airways	--	0.0%	--	0.0%	18,299	0.1%	57,650	0.4%	61,745	0.4%	52,728	0.4%
Virgin America	38,878	0.3%	155,152	1.0%	97,932	0.6%	26,566	0.2%	--	0.0%	--	0.0%
Other 5/	47,101	0.3%	580	0.0%	4,507	0.0%	995	0.0%	2,905	0.0%	7,150	0.0%
Airport Total	**15,344,126**	**100.0%**	**15,215,885**	**100.0%**	**15,316,053**	**100.0%**	**15,312,738**	**100.0%**	**15,683,558**	**100.0%**	**14,806,882**	**100.0%**

NOTES: For Fiscal Years ended June 30. Numbers may not add due to rounding.

1/ Includes regional affiliated airlines, as applicable.

2/ American Airlines and US Airways merged in 2013. Historical numbers of enplaned passengers for these airlines are combined in this table.

3/ Southwest Airlines and AirTran Airways merged in 2011. Historical numbers of enplaned passengers for these airlines are combined in this table.

4/ United Airlines and Continental Airlines merged in 2010. Historical numbers of enplaned passengers for these airlines are combined in this table.

5/ Includes airlines with minimal market shares or that did not operate at the Airport in FY 2017.

SOURCE: City of Philadelphia records, August 2017.
PREPARED BY: Ricondo & Associates, Inc., September 2017.

As previously described, the Airport is a major connecting hub in American's route network. As a result, millions of passengers each year use the Airport as a connecting point on their way to their final destinations, while O&D passengers use the Airport as the beginning or end of their airline travel. **Table 4-6** presents historical total O&D and connecting passenger data for the Airport in FY 2008 through FY 2017. As shown, the number of O&D enplaned passengers has exceeded the number of connecting passengers each year since FY 2008. The connecting passenger share peaked in FY 2012 at 42.4 percent of total enplaned passengers and has decreased each year since CY 2013. In FY 2017, the share of connecting passengers decreased to 32.7 percent of total enplaned passengers, with originating passengers accounting for 67.3 percent of total enplaned passengers.

The large growth in the number of originating passengers in FY 2016 resulted from multiple factors. Low cost airlines, such as Frontier and JetBlue, which both increased service at the Airport significantly in FY 2016, tend to connect very few passengers at their non-hub airports, which includes the Airport. Additionally, the low cost of fuel beginning in FY 2015 and continuing throughout FY 2016 enabled the airlines to maintain profitability with passengers paying lower average fares. Connecting passenger numbers decreased as American and other airlines allocated capacity to O&D passengers rather than connecting passengers. **Exhibit 4-3** presents an index (to 2009 data) of O&D passengers and average fares at the Airport, and the industry's cost of fuel. The number of O&D passengers was stagnant between FY 2009 and FY 2014, while airfares increased in response to the cost of fuel. As the cost of fuel began to decrease in FY 2015, and more dramatically in FY 2016, airlines were able to reduce fares and capture revenues through higher passenger numbers.

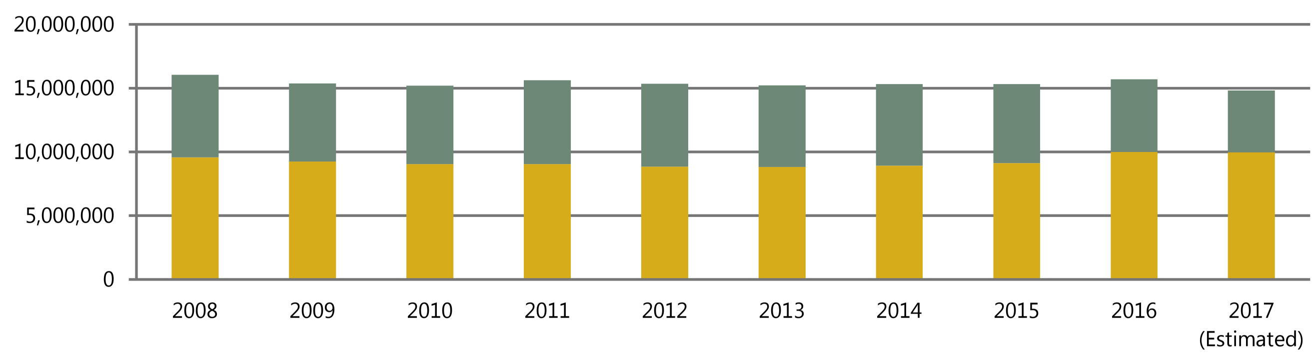
An important characteristic of Airport activity is the distribution of the Airport's O&D markets, which is a function of airline travel demand and available services and facilities. **Table 4-7** presents data on the Airport's top 20 domestic O&D markets in FY 2016, as measured by numbers of O&D passengers. The top 20 domestic O&D markets accounted for 67.4 percent of total domestic O&D passengers at the Airport in FY 2016. As of December 2016, all of the top 20 domestic O&D markets were served nonstop from the Airport. Additionally, 19 of the Airport's top 20 O&D markets were also served nonstop by an airline other than American. Although American is the primary airline serving 17 of the Airport's top 20 domestic O&D markets, the secondary airlines had a market share of 20 percent or higher in 13 of these markets. Low cost airlines were the secondary airlines serving 14 of the top 20 domestic O&D markets. American enplaned and deplaned 50 percent or more of total O&D passengers in 13 markets (served nonstop or with a connection).

Table 4-8 presents the top 25 international markets for the Airport based on scheduled nonstop departing seats in FY 2016. London (LHR) was the top international market in terms of available seat capacity, with a total of approximately 327,000 scheduled departing seats. Other European markets (Frankfurt [FRA], Paris [Charles de Gaulle, CDG], and Rome [Fiumicino, FCO]), Middle Eastern markets (Doha [DOH]), North American markets (Toronto, Canada [YYZ], Cancun, Mexico [CUN], and Montreal, Canada [YUL]), and Caribbean markets (Punta Cana, Dominican Republic [PUJ] and Montego Bay, Jamaica [MBJ]) are included in the top 10 international markets for the Airport, each served with more than 90,000 scheduled departing seats in FY 2017. The large number of departing seats to European and Western Hemisphere markets reinforces the Airport's important role serving connecting passengers traveling to international destinations.

Table 4-6: Historical Originating and Connecting Enplaned Passengers

FISCAL YEAR	ORIGINATING PASSENGERS	ANNUAL INCREASE/ (DECREASE)	CONNECTING PASSENGERS	ANNUAL INCREASE/ (DECREASE)	TOTAL ENPLANED PASSENGERS	ANNUAL INCREASE/ (DECREASE)	ORIGINATING PASSENGER SHARE OF TOTAL	CONNECTING PASSENGER SHARE OF TOTAL
2008	9,561,878		6,491,095		16,052,973		59.6%	40.4%
2009	9,250,056	(3.3%)	6,112,687	(5.8%)	15,362,743	(4.3%)	60.2%	39.8%
2010	9,050,361	(2.2%)	6,143,380	0.5%	15,193,741	(1.1%)	59.6%	40.4%
2011	9,051,329	0.0%	6,560,254	6.8%	15,611,583	2.8%	58.0%	42.0%
2012	8,843,459	(2.3%)	6,500,667	(0.9%)	15,344,126	(1.7%)	57.6%	42.4%
2013	8,824,577	(0.2%)	6,391,308	(1.7%)	15,215,885	(0.8%)	58.0%	42.0%
2014	8,914,473	1.0%	6,401,580	0.2%	15,316,053	0.7%	58.2%	41.8%
2015	9,111,835	2.2%	6,200,903	(3.1%)	15,312,738	0.0%	59.5%	40.5%
2016	9,990,211	9.6%	5,693,347	(8.2%)	15,683,558	2.4%	63.7%	36.3%
2017 (Estimated) 1/	9,969,234	(0.2%)	4,837,648	(15.0%)	14,806,882	(5.6%)	67.3%	32.7%
Compound Annual Growth Rate								
2008 - 2010	-2.7%		-2.7%		-2.7%			
2010 - 2012	-1.1%		2.9%		0.5%			
2012 - 2017	2.4%		-5.7%		-0.7%			
2008 - 2017	0.5%		-3.2%		-0.9%			

Enplaned Passengers

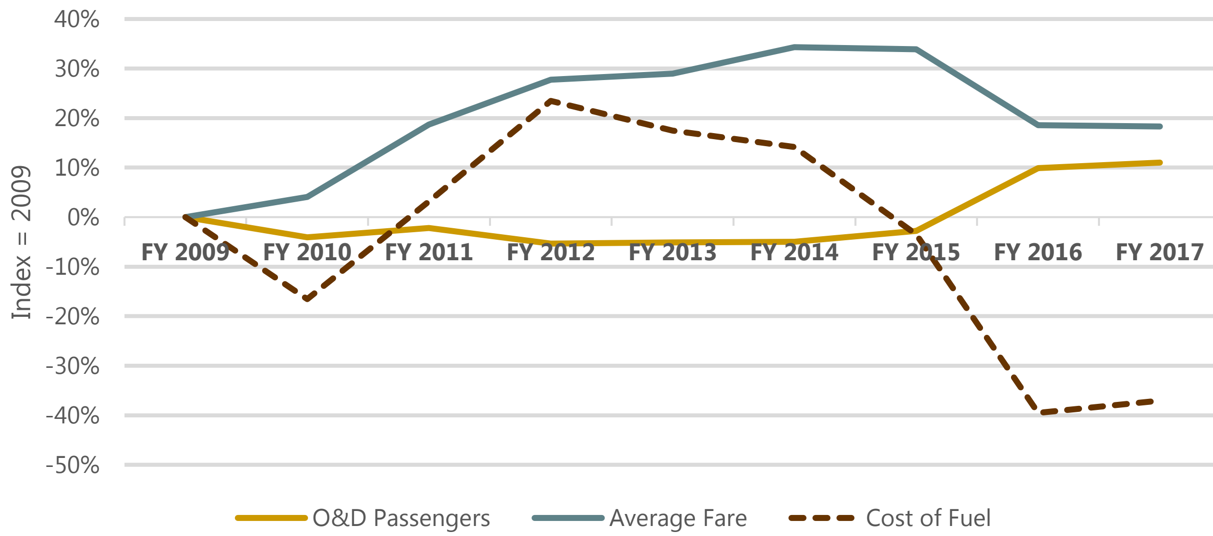


NOTES: Numbers may not add due to rounding. Adjusted for foreign-flag airlines. For Fiscal Years ended June 30.

1/ Segmentation of O&D and connecting passengers based on U.S. DOT reported statistics, which are estimated for FY 2017.

SOURCES: City of Philadelphia records, August 2017; U.S. Department of Transportation, Form 41, August 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Exhibit 4-3: O&D Passengers and Average Fares at the Airport and the Industry's Cost of Fuel



NOTE: For Fiscal Years ending June 30.

SOURCES: U.S. Department of Transportation, DB1B Survey, October 2017; U.S. Department of Transportation, Form 41 Financial Data October 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

Table 4-7: Top 20 Domestic O&D Markets for the Airport (FY 2017)

RANK	MARKET	O&D PASSENGERS PER DAY EACH WAY	PERCENTAGE OF O&D PASSENGERS	PRIMARY AIRLINE	MARKET SHARE	SECONDARY AIRLINE	MARKET SHARE	AIRLINES PROVIDING NONSTOP SERVICE [1]
1	Orlando	1,942	8.2%	American	43.8%	Southwest	24.9%	American, Frontier, Southwest, Spirit
2	Chicago[2]	1,398	5.9%	American	51.0%	Southwest	24.5%	American, Southwest, United
3	Atlanta	1,256	5.3%	Delta	41.2%	American	33.8%	American, Delta, Spirit, Southwest
4	Los Angeles[3]	1,165	4.9%	American	59.2%	United	13.3%	Alaska, American, Spirit, Virgin America
5	Boston	989	4.2%	American	70.8%	JetBlue	28.8%	American, JetBlue
6	Ft. Lauderdale	914	3.9%	American	48.0%	JetBlue	18.6%	American, JetBlue, Southwest, Spirit
7	Tampa	855	3.6%	American	52.4%	Southwest	27.8%	American, Frontier, Southwest
8	Dallas[4]	830	3.5%	American	68.0%	Spirit	15.6%	American, Spirit, Southwest
9	San Francisco[5]	799	3.4%	American	59.6%	United	23.1%	Alaska, American, United, Virgin America
10	Denver	779	3.3%	American	33.0%	Southwest	30.6%	American, Frontier, Southwest, United
11	Las Vegas	771	3.3%	American	57.4%	Southwest	17.4%	American, Southwest, Spirit
12	Miami	651	2.8%	American	79.7%	Frontier	18.2%	American, Frontier
13	Phoenix	487	2.1%	American	73.8%	Southwest	19.7%	American, Southwest
14	Houston[6]	454	1.9%	United	39.9%	American	29.9%	American, Frontier, United
15	Detroit	452	1.9%	Delta	37.8%	American	35.6%	American, Delta, Spirit
16	Charlotte	446	1.9%	American	70.6%	Frontier	23.2%	American, Frontier
17	Minneapolis	437	1.9%	Delta	45.1%	American	36.5%	American, Delta, Spirit
18	Raleigh	408	1.7%	American	64.4%	Frontier	17.7%	American, Delta, Frontier
19	Nashville	403	1.7%	American	48.1%	Southwest	38.8%	American, Frontier, Southwest
20	San Diego	373	1.6%	American	65.6%	Southwest	14.1%	American
Other O&D Markets		7,773	33.0%					
Domestic O&D Passengers		**23,581**						

NOTES: Numbers may not add due to rounding.

1/ Includes announced future service and excludes service discontinued during FY 2017

2/ Includes Chicago O'Hare (ORD) and Chicago Midway (MDW) International Airports.

3/ Includes Los Angeles International (LAX), LA/Ontario International (ONT), Hollywood Burbank (BUR), Long Beach (LGB), and John Wayne (SNA) Airports.

4/ Includes Dallas Fort Worth International Airport (DFW) and Dallas Love Field (DAL).

5/ Includes San Francisco (SFO), Oakland (OAK) and Mineta San Jose (SJC) International Airports.

6/ Includes Bush Intercontinental Airport/Houston (IAH) and William P. Hobby Airport (HOU).

SOURCE: U.S. Department of Transportation, *Origin & Destination Survey of Airline Passenger Traffic, Domestic*, October 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

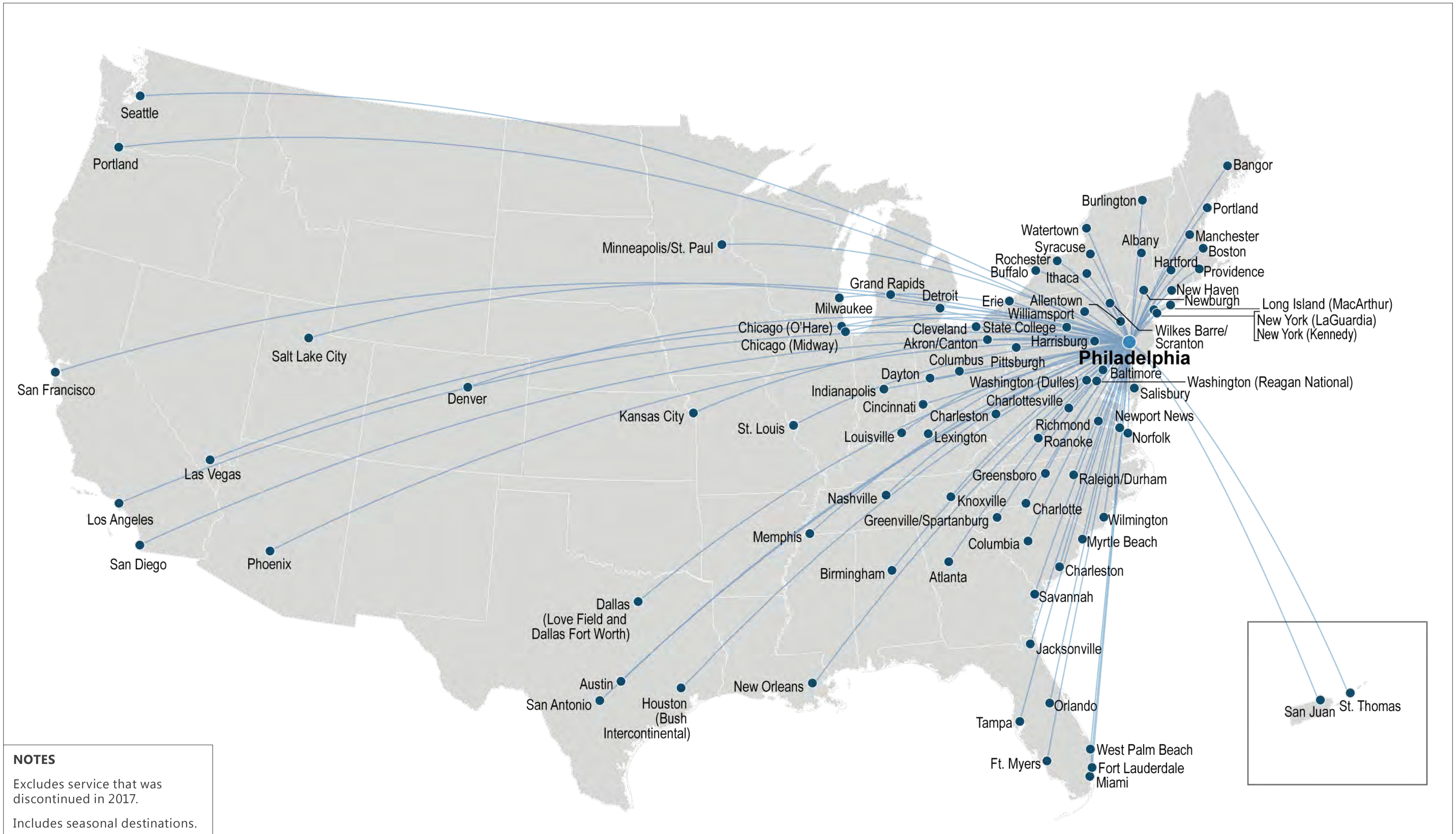
Table 4-8: Top 25 International Markets for the Airport – Scheduled Departing Seats (FY 2017)

RANK	MARKET	AIRPORT CODE	REGION/ CONTINENT	TOTAL SCHEDULED SEATS
1	London (Heathrow), England	LHR	Europe	326,683
2	Toronto, Ontario, Canada	YYZ	North America	200,836
3	Cancun, Mexico	CUN	North America	176,993
4	Frankfurt, Germany	FRA	Europe	153,364
5	Punta Cana, Dominican Republic	PUJ	Caribbean	130,172
6	Paris, France	CDG	Europe	114,417
7	Montreal, Canada	YUL	North America	113,478
8	Doha, Qatar	DOH	Middle East	100,932
9	Montego Bay, Jamaica	MBJ	Caribbean	98,599
10	Rome, Italy	FCO	Europe	93,885
11	Madrid, Spain	MAD	Europe	92,658
12	Manchester, England	MAN	Europe	90,816
13	Dublin, Ireland	DUB	Europe	83,809
14	Munich, Germany	MUC	Europe	83,775
15	Amsterdam, Netherlands	AMS	Europe	58,432
16	Barcelona, Spain	BCN	Europe	53,148
17	Venice, Italy	VCE	Europe	50,841
18	Athens, Greece	ATH	Europe	49,296
19	Nassau, Bahamas	NAS	Caribbean	46,421
20	Bermuda	BDA	Caribbean	40,294
21	Lisbon, Portugal	LIS	Europe	36,256
22	Ottawa, Ontario, Canada	YOW	North America	34,250
23	St. Maarten	SXM	Caribbean	32,560
24	Aruba	AUA	Caribbean	28,186
25	Shannon, Ireland	SNN	Europe	26,048

NOTES: Scheduled international service in FY 2017, ended June 30.

SOURCE: Innovata, December 2016.
PREPARED BY: Ricondo & Associates, Inc., April 2017.

Exhibit 4-4 shows the domestic markets with scheduled nonstop service from the Airport in CY 2017, inclusive of seasonal destinations. In December 2017, an average of 396 domestic flights per day are scheduled to depart from the Airport to 86 nonstop destinations. **Exhibit 4-5** shows the international markets with scheduled nonstop service from the Airport in CY 2017. In December 2017, an average of 38 international flights per day are scheduled to depart from the Airport to 23 nonstop destinations.



NOTES

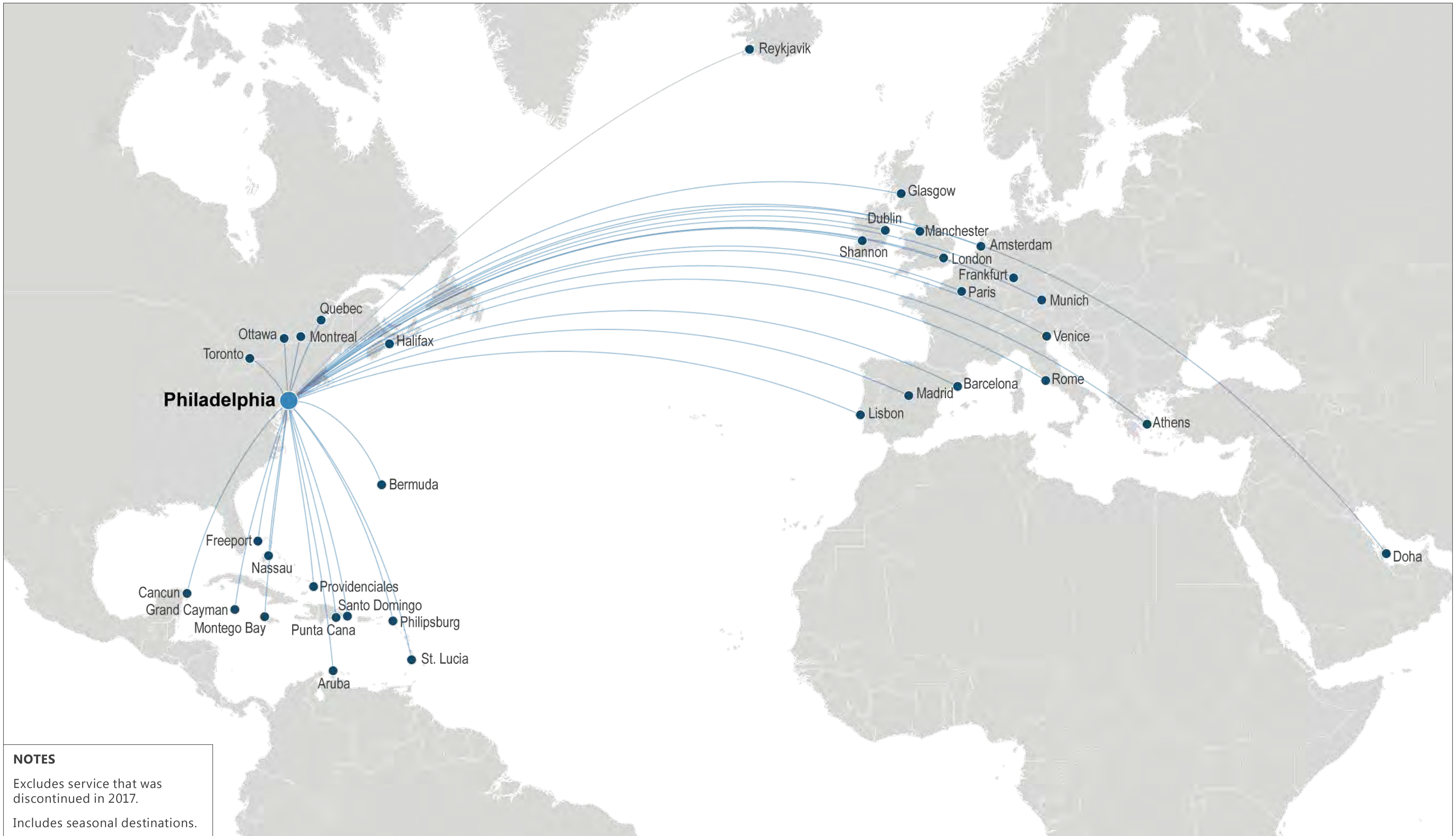
Excludes service that was discontinued in 2017.

Includes seasonal destinations.

SOURCE: Innovata, November 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

EXHIBIT 4-4

Nonstop Domestic Service



NOTES

Excludes service that was discontinued in 2017.

Includes seasonal destinations.

SOURCE: Innovata, November 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

EXHIBIT 4-5

Nonstop International Service

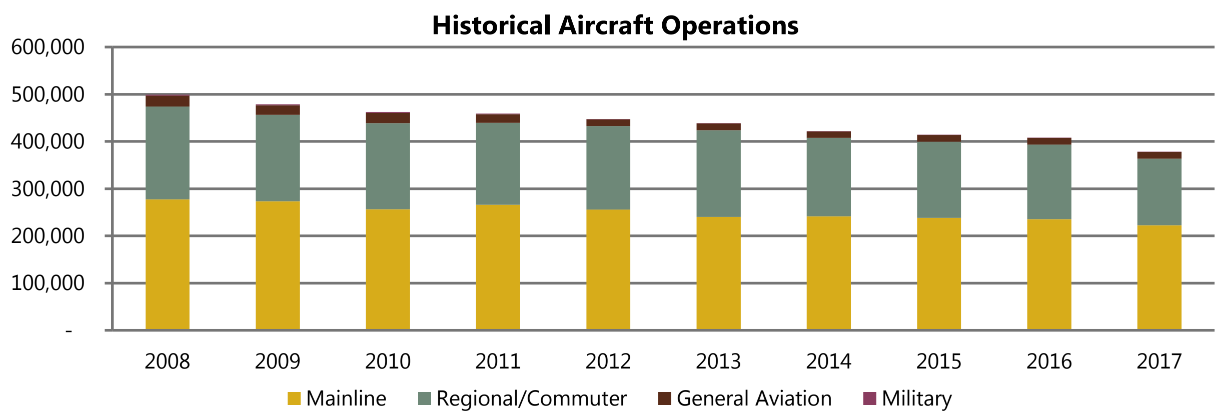
4.3.3 AIRCRAFT OPERATIONS

Table 4-9 presents historical aircraft operations at the Airport in FY 2008 through FY 2017. The categories of aircraft operations shown conform to the categories reported by the City. Total aircraft operations at the Airport decreased at a compound annual rate of 3.0 percent between FY 2008 and FY 2017 which reflects, in part, changes in air service and airline capacity discipline. Information on capacity discipline is in Section 4.4.2.2.

Mainline aircraft operations peaked at 277,502 in FY 2008 and decreased to 222,618 operations in FY 2017. This change represents a 2.4 percent compound annual rate decrease in mainline aircraft operations between FY 2008 and FY 2017, which was mainly attributable to the legacy airlines shifting service to regional jets and the decision by Southwest to reassign capacity from the Airport to other markets. During this same period, regional/commuter aircraft operations (aircraft with fewer than 61 seats) decreased at a compound annual rate of 43.6 percent. The number of regional/commuter aircraft operations peaked at 196,544 in FY 2008, decreasing to 141,120 in FY 2017. This decrease in regional/commuter aircraft operations was, in part, attributable to the increased use of larger regional aircraft to replace certain aircraft with 50 or fewer seats.

Table 4-9: Historical Aircraft Operations

FISCAL YEAR	MAINLINE	REGIONAL/COMMUTER	GENERAL AVIATION	MILITARY	TOTAL	INCREASE/ (DECREASE)
2008	277,502	196,544	23,037	2,198	499,281	(1.9%)
2009	273,206	183,160	20,648	1,559	478,573	(4.1%)
2010	256,614	182,408	21,728	1,698	462,448	(3.4%)
2011	266,138	173,255	18,325	1,114	458,832	(0.8%)
2012	255,629	177,194	14,129	436	447,388	(2.5%)
2013	240,165	183,828	13,848	423	438,264	(2.0%)
2014	241,252	166,014	13,883	400	421,549	(3.8%)
2015	237,788	161,386	14,548	399	414,121	(1.8%)
2016	235,411	157,988	14,101	468	407,968	(1.5%)
2017	222,618	141,120	14,184	412	378,334	(7.3%)
Compound Annual Growth Rate						
2008 - 2010	-3.8%	-3.7%	-2.9%	-12.1%	-3.8%	
2010 - 2012	-0.2%	-1.4%	-19.4%	-49.3%	-1.6%	
2012 - 2017	-2.7%	-4.5%	0.1%	-1.1%	-3.3%	
2008 - 2017	-2.4%	-3.6%	-5.2%	-17.0%	-3.0%	



NOTE: For Fiscal Years ended June 30.

SOURCE: City of Philadelphia records, August 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

4.3.4 LANDED WEIGHT

Table 4-10 presents the historical shares of landed weight for the airlines serving the Airport in FY 2012 through FY 2017. As shown, total landed weight at the Airport decreased from approximately 21.4 million 1,000-pound units in FY 2012 to approximately 19.8 million 1,000-pound units in FY 2017, reflecting the decrease in aircraft operations during that period. Similar to enplaned passenger share growth, the share of landed weight for American and its regional affiliates increased from 67.1 percent in FY 2012 to 70.2 percent in FY 2014, before decreasing to 66.9 percent in FY 2016 and 63.7 percent in FY 2017. The all-cargo airlines (UPS and FedEx) accounted for approximately 10.0 percent of the Airport's total landed weight in FY 2017.

4.3.5 AIR CARGO

UPS operates an Air Hub at the Airport. The Air Hub is a regional cargo facility that connects the UPS network with mid-Atlantic and European markets. The regional Air Hub located at the Airport is responsible for ensuring coverage of the UPS domestic cargo market, as well as the potential for expansion of network cargo capacity. Because of the inherent costs of air transportation, demand for air cargo is largely driven by overnight and expedited services, primarily high-value, time-sensitive items. While the Air Hub provides access to external markets, it also serves a broad spectrum of air-eligible shippers that produce a fairly stable base of commodities, including machinery manufacturers, electronic component manufacturers, and pharmaceutical companies in the Air Trade Area.

Additionally, the passenger airlines carry belly cargo to and from the Airport. In April 2015, American opened a $5.0 million 24,000-square-foot cold storage facility for pharmaceutical cargo at the Airport. **Table 4-11** presents historical air cargo tonnage (both freight and mail) at the Airport in FY 2008 through FY 2017. As shown in Table 4-11, total cargo weight decreased at a compound annual rate of 3.1 percent between FY 2008 and FY 2017, partly as a result of reduced nationwide demand for overnight and expedited cargo services. As shown in **Table 4-12**, the UPS Air Hub at the Airport ranked second among UPS's continental U.S. Air Hubs in terms of destinations served and third in terms of departing cargo weight in FY 2017.

4.4 Factors Affecting Aviation Demand at the Airport

The qualitative factors that could influence future aviation activity at the Airport are discussed in this section. Data and information related to these factors were either directly or indirectly incorporated into the development of activity forecasts for the Airport.

4.4.1 NATIONAL ECONOMY

Historically, trends in airline travel demand, measured by either passenger volumes or passenger fare revenues, have closely correlated with national economic trends. Chapter 3 presents an analysis of general economic trends, both national and local, that may influence demand for airline service over time. As noted in Chapter 3, national per capita GDP is projected to increase at a 1.2 percent average annual rate through the Projection Period (ending in FY 2023), which should support increasing demand for airline service at the Airport and nationwide. Actual economic activity is likely to differ from this projection, especially on a year-to-year basis, with demand for airline service likely reacting in kind.

Table 4-10: Historical Landed Weight by Airline

	FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017	
AIRLINE [1/]	LANDED WEIGHT	AIRLINE SHARE	LANDED WEIGHT	AIRLINE SHARE	LANDED WEIGHT	AIRLINE SHARE	LANDED WEIGHT	AIRLINE SHARE	LANDED WEIGHT	AIRLINE SHARE	LANDED WEIGHT	AIRLINE SHARE
American Airlines [2/]	14,324,178	67.1%	14,240,901	69.0%	14,521,859	70.2%	14,463,253	69.6%	13,934,700	66.9%	12,594,910	63.7%
United Parcel Service	1,427,672	6.7%	1,346,690	6.5%	1,353,805	6.5%	1,403,991	6.8%	1,442,377	6.9%	1,508,384	7.6%
Delta Air Lines	1,288,554	6.0%	1,286,003	6.2%	1,260,892	6.1%	1,269,465	6.1%	1,305,478	6.3%	1,243,892	6.3%
Southwest Airlines [3/]	2,185,098	10.2%	1,530,036	7.4%	1,214,764	5.9%	1,116,912	5.4%	1,122,080	5.4%	1,147,550	5.8%
United Airlines [4/]	939,729	4.4%	876,129	4.2%	715,166	3.5%	682,205	3.3%	687,314	3.3%	707,540	3.6%
FedEx	408,627	1.9%	431,598	2.1%	473,512	2.3%	460,564	2.2%	470,721	2.3%	469,957	2.4%
British Airways	277,447	1.3%	268,709	1.3%	275,550	1.3%	284,499	1.4%	293,400	1.4%	292,559	1.5%
Qatar Airways	--	--	--	--	44,280	0.2%	183,868	0.9%	174,408	0.8%	163,004	0.8%
Lufthansa	112,152	0.5%	112,147	0.5%	137,300	0.7%	165,814	0.8%	156,135	0.7%	144,720	0.7%
Frontier Airlines	98,612	0.5%	54,028	0.3%	30,430	0.1%	199,998	1.0%	540,247	2.6%	600,841	3.0%
JetBlue Airways	--	--	18,624	0.1%	158,398	0.8%	158,222	0.8%	219,976	1.1%	249,900	1.3%
Spirit Airlines	--	--	31,841	0.2%	132,519	0.6%	143,495	0.7%	265,760	1.3%	394,267	2.0%
Air Canada	95,500	0.4%	100,914	0.5%	100,316	0.5%	100,135	0.5%	107,038	0.5%	123,694	0.6%
Other [5/]	145,333	0.7%	127,006	0.6%	137,652	0.7%	104,665	0.5%	101,569	0.5%	117,426	0.6%
Virgin America	55,269	0.3%	213,741	1.0%	134,812	0.7%	35,545	0.2%	--	--	--	--
Total Airlines	**21,358,171**	**100.0%**	**20,638,367**	**100.0%**	**20,691,255**	**100.0%**	**20,772,631**	**100.0%**	**20,821,203**	**100.0%**	**19,758,643**	**100.0%**

NOTES: Per 1,000-pound units. Numbers may not add due to rounding.

1/ Includes regional affiliated airlines, as applicable.

2/ American Airlines and US Airways merged on December 9, 2013, and a Single Operating Certificate was awarded in April 2015. Historical landed weight for these airlines is combined in this table.

3/ Southwest Airlines and AirTran Airways merged in 2011. Historical landed weight for these airlines is combined in this table.

4/ United Airlines and Continental Airlines merged in 2010. Historical landed weight for these airlines is combined in this table.

5/ Includes airlines with minimal market shares or that may not have operated at the Airport in FY 2017 (ended June 30).

SOURCE: City of Philadelphia records, August 2017.
PREPARED BY: Ricondo & Associates, Inc., September 2017.

Table 4-11: Historical Air Cargo (in tons)

FISCAL YEAR	FREIGHT	MAIL	TOTAL	INCREASE/ (DECREASE)
2008	575,640	22,181	597,821	1.4%
2009	475,365	24,692	500,057	(16.4%)
2010	440,495	20,544	461,039	(7.8%)
2011	449,683	23,937	473,620	2.7%
2012	416,731	27,151	443,882	(6.3%)
2013	388,383	28,285	416,668	(6.1%)
2014	395,661	29,545	425,206	2.0%
2015	402,194	26,681	428,875	0.9%
2016	414,891	22,866	437,757	2.1%
2017	424,009	24,659	448,668	2.5%
Compound Annual Growth Rate				
2008 - 2010	-12.5%	-3.8%	-12.2%	
2010 - 2012	-2.7%	15.0%	-1.9%	
2012 - 2017	0.3%	-1.9%	0.2%	
2008 - 2017	-3.3%	1.2%	-3.1%	

NOTE: For Fiscal Years ended June 30.

SOURCE: City of Philadelphia records, August 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Table 4-12: Comparison of Continental U.S. UPS Air Hubs (FY 2017)

AIRPORT	NUMBER OF DESTINATIONS SERVED	ANNUAL DEPARTING CARGO (MILLIONS OF POUNDS)
Louisville International (SDF)	109	2,373
Philadelphia International (PHL)	**39**	**248**
LA/Ontario International (ONT)	34	366
Chicago Rockford International (RFD)	34	123
Dallas Fort Worth International (DFW)	27	176

NOTE: For Fiscal Years ended June 30.

SOURCE: U.S. Department of Transportation, T100 Database, October 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

4.4.2 STATE OF THE AIRLINE INDUSTRY

In the aftermath of the terrorist attacks on September 11, 2001, the United States airline industry experienced a material adverse shift in the demand for airline travel, which exacerbated problems for a U.S. airline industry already weakened by a slowing economy and rising labor and fuel costs. The result was 4 years of reported industry operating losses in 2001 through 2004, totaling more than $22 billion (excluding extraordinary charges and gains). Following these restructuring years, the airline industry improved in 2005 through 2007, with U.S.-

flag airlines posting combined operating profits in all 3 years.[7] In 2008 and through the first half of 2009, the combination of record-high fuel prices, weakening economic conditions, and a weak dollar resulted in the worst financial environment for the U.S. network and low-cost airlines since the September 11, 2001, terrorist attacks.

4.4.2.1 Airline Mergers and Acquisitions

Since 2009, airlines have merged or acquired competitors in an attempt to increase operational synergies and become more competitive and cost efficient. In 2009, Delta completed its merger with Northwest Airlines, initiating a wave of U.S. airline mergers and acquisitions. That same year, Republic Airways Holdings, a regional airline, acquired Frontier Airlines and Midwest Airlines. In October 2010, United and Continental merged, creating the world's largest airline in terms of operating revenue and revenue passenger miles. In 2011, Southwest acquired AirTran Holdings, Inc., the former parent company of low-cost competitor AirTran Airways. Effective December 9, 2013, American and US Airways merged, creating the largest airline in terms of operating revenue and revenue passenger miles (surpassing United). Alaska Airlines closed its acquisition of Virgin America on December 14, 2016. Additional consolidation in the U.S. airline industry could affect the amount of capacity offered to passengers and alter the competitive landscape.

4.4.2.2 Capacity Discipline —A Change in the Airline Business Model

In 2008, many domestic airlines announced significant capacity reductions, increases in fuel surcharges, airfares and fees, and other measures to address their financial challenges. In 2008, North American airline members of the International Air Transport Association (IATA) recorded a $16.8 billion loss. The combination of airline mergers and capacity reductions has dramatically improved airline financial conditions. In contrast to earlier losses, North American airline members of IATA are projected to generate profits of $22.9 billion in 2016, after earning $21.5 billion in profits in 2015.[8] Capacity discipline, primarily in the domestic market, is the principal driver behind the airline industry's financial turnaround.

Capacity discipline reflects a shift in the airline business model, from an environment in which market share targets are pursued to one where financial targets are pursued. The new business model resulted in an approximately 7 percent decrease in U.S. domestic seat capacity between 2008 and 2014 as airlines shed less profitable capacity and passenger volumes not contributing toward the achievement of financial targets. By allocating the remaining seat capacity to a more profitable segment of passengers, airlines increased domestic load factors from approximately 75 percent in 2008 to approximately 83 percent in 2015.

The recently declining cost of fuel has resulted in a change to the capacity discipline model. U.S. domestic seat capacity increased in 2016 and is scheduled to increase further in 2017 as airlines have taken advantage of lower fuel costs and increased capacity to achieve financial targets through growth in numbers of passengers served. If the cost of fuel increases, airlines may reverse this trend and again capture revenue growth through higher fares to offset the increases in fuel cost.

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7 Airlines for America, *2009 Economic Report*.

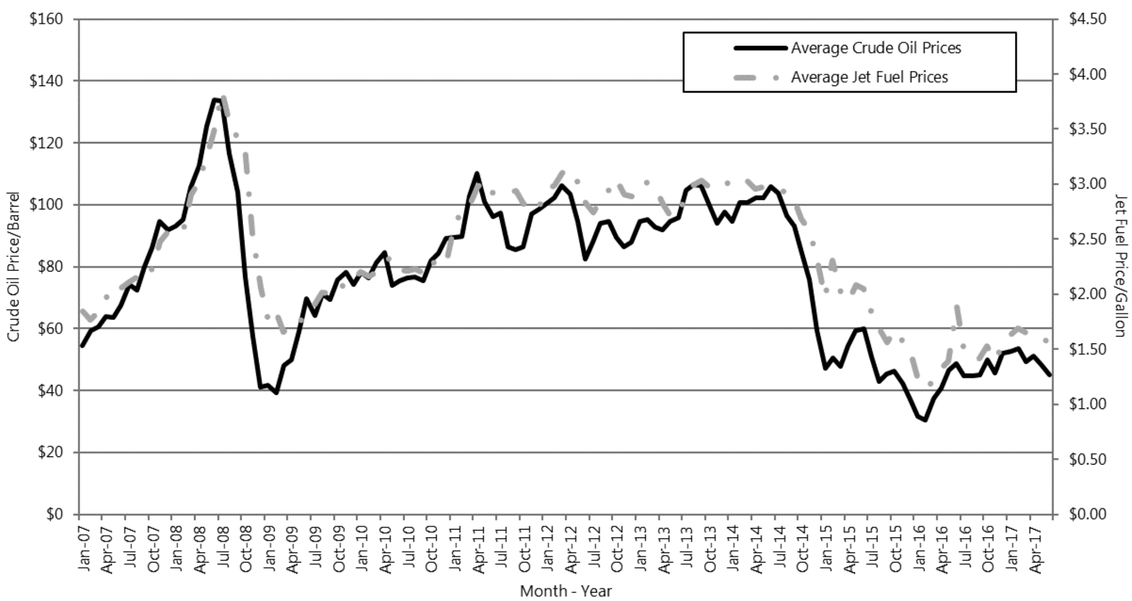
8 International Air Transport Association, *Economic Performance of the Industry,* June 2016.

4.4.3 COST OF FUEL

The cost of aviation fuel is one of the most significant and volatile airline expenses. Historically, fuel has been the first or second largest operating expense for the airline industry, alternating with labor cost. According to IATA, fuel accounted for 31.6 percent and 27.5 percent of airline operating costs in 2014 and 2015, respectively. Fuel costs are estimated to decrease to 17.4 percent of operating costs in 2017.[9]

Since the end of 2014, the average price of jet fuel has decreased dramatically. Based on the most recent data available, average fuel prices decreased 43 percent during the 24 months ended June 2017 compared with prices during the prior 24 months. The decreasing cost of fuel has the potential to provide airlines with more flexibility in terms of pricing and allocation of capacity. This is especially true on routes that generate lower passenger fares or are operated with less fuel-efficient aircraft. **Exhibit 4-6** shows the quarterly average prices of jet fuel and crude oil between January 2007 and June 2017. Fluctuating fuel costs will continue to affect airline profitability, and this could lead to changes in service as airlines adjust capacity to address increases or decreases in the cost of fuel.

Exhibit 4-6: Historical Average Prices of Jet Fuel and Crude Oil



SOURCES: U.S. Department of Transportation, Bureau of Transportation Statistics, August 2017 (Average Jet Fuel Prices); U.S. Energy Information Administration, August 2017 (Average Crude Oil Prices).
PREPARED BY: Ricondo & Associates, Inc., September 2017.

4.4.4 OTHER AIRPORTS SERVING THE AIR TRADE AREA

The Airport is the only commercial service airport located within the Air Trade Area. However, Atlantic City International Airport (ACY) is located approximately 56 miles southeast of the Airport in Egg Harbor Township, New Jersey. Spirit is the only airline scheduled to operate from ACY, with approximately 2,000 daily seats and

9 International Air Transport Association, *Fact Sheet-Fuel*, June 2017.

10 daily departures to six destinations. All six of these destinations are also served nonstop from Philadelphia International Airport.

Trenton-Mercer Airport (TTN) is located in Mercer County, New Jersey, approximately 43 miles northwest of the Airport. In December 2017, Allegiant Air and Frontier are scheduled to operate service to approximately six daily flights and 1,140 daily seats from TTN to 10 destinations. Of the 10 destinations served from TTN, 7 are also served nonstop from the Airport. In total, 12 markets are served from ACY and TTN.

Table 4-13 presents the numbers of scheduled average daily flights and seats between the Airport, ACY, and TTN and these 12 markets in December 2017. The Airport accounts for at least 70 percent of total seats in 7 of the 9 common markets. ACY has long been a Spirit focus city; the airline has served ACY since 1992. During that time, Spirit began service at the Airport (in FY 2012) and, since its first full year of service, Spirit has nearly quadrupled the number of seats it operates at the Airport.

In addition, Frontier, which was the fastest growing airline at the Airport in terms of passenger volumes in 2016, serves five destinations from the Airport that it also serves from TTN. As recently as 2014, Frontier offered more than 10 times as many seats at TTN as at the Airport. In 2015, Frontier's seat capacity at the Airport surpassed that at TTN and, in 2017, Frontier was scheduled to operate twice as many seats at the Airport than at TTN. Frontier's growth at the Airport has not been hindered by its operations at TTN.

Table 4-13: Service to Common Destinations from the Airport, Trenton-Mercer Airport, and Atlantic City International Airport (December 2017)

	PHILADELPHIA INTERNATIONAL AIRPORT		TRENTON-MERCER AIRPORT (TTN)		ATLANTIC CITY INTERNATIONAL AIRPORT (ACY)		PHILADELPHIA INTERNATIONAL AIRPORT SHARE	
DESTINATION	DAILY FLIGHTS	DAILY SEATS	DAILY FLIGHTS	DAILY SEATS	DAILY FLIGHTS	DAILY SEATS	DAILY FLIGHTS	DAILY SEATS
Orlando International Airport (MCO)	15.9	2,855	2.0	360	2.0	447	80%	78%
Southwest Florida International Airport (RSW)		656	0.8	145	1.8	375	63%	56%
Palm Beach International Airport (PBI)	4.4	670	0.7	128	1.0	228	72%	65%
Tampa International Airport (TPA)	6.8	1,133	0.6	105	1.0	228	81%	77%
Hartsfield-Jackson Atlanta International Airport (ATL)	17.8	2426	0.6	105	0.0	0	97%	96%
Miami International Airport (MIA)	6.4	1,118	0.4	75	0.0	0	94%	94%
Charlotte Douglas International Airport (CLT)	9.5	1,628	0.4	63	0.0	0	96%	96%
Punta Gorda Airport (PGD)	0.0	0	0.3	51	0.0	0	0%	0%
St. Petersburg-Clearwater International Airport (PIE)	0.0	0	0.3	51	0.0	0	0%	0%
Orlando Sanford International Airport (SFB)	0.0	0	0.3	51	0.0	0	0%	0%
Fort Lauderdale-Hollywood International Airport (FLL)	8.8	1,444	0.0	0	2.8	557	76%	72%
Myrtle Beach International Airport (MYR)	1.1	86	0.0	0	1.0	182	53%	32%
Total	**75.3**	**12,017**	**6.4**	**1,134**	**9.6**	**2,017**	**82%**	**79%**

NOTE: All values shown are averages in the month of December 2017.
SOURCE: Innovata, August 2017.
PREPARED BY: Ricondo & Associates, Inc., August 2017.

4.5 Importance of the Airport to Airlines

4.5.1 AMERICAN AIRLINES HUB

American and US Airways closed their merger in December 2013 and as of October 2015 have operated all flights under the American Airlines brand. In October 2016, the airline's 15,000 pilots were integrated into a single flight operating system, which enabled improved flexibility for scheduling pilots and aircraft and eliminated redundancies that inhibited operational flexibility. The combined airline is the world's largest, operating approximately 6,200 average daily flights to more than 350 destinations, using 930 mainline aircraft. American's route network is centered on a system of hub and gateway airports at Charlotte, Chicago (O'Hare), Dallas-Fort Worth, Los Angeles, Miami, New York (Kennedy and LaGuardia), Philadelphia, Phoenix, and Washington, D.C. (Reagan). Each of these hub operations consists of flights that distribute passengers between various domestic and international markets. The Airport was a key domestic hub as well as the primary transatlantic gateway in the US Airways network and retains these core characteristics in the integrated American network. **Table 4-14** shows the rank of each of American's hubs for various measures of activity during CY 2016. During this period, the Airport ranked 5th amongst American's hubs for domestic passengers and 4th for international passengers. As shown in Table 4-14, American and its regional affiliates account for approximately 70 percent of the Airport's total passengers. An examination of American's recent business decisions indicates that the Airport will remain a critical hub in the airline's route network.

4.5.1.1 AMERICAN AIRLINES FLEET MIX

The composition of an airline's aircraft fleet is a critical factor in determining where to allocate assets and how to schedule service. **Table 4-15** presents American's published aircraft fleet at the end of 2016, the latest full year for which published data are available. As shown in Table 4-15, American Airlines and its wholly owned subsidiaries operate a fleet of 930 mainline aircraft and 363 regional aircraft. Third party regional airlines operate an additional 243 aircraft on behalf of American.[10] American has initiated a fleet modernization program, replacing its aging McDonnell Douglas MD-80 aircraft with new Airbus A320 and Boeing 737 family aircraft. American is also investing in its widebody fleet, having recently taken delivery of 20 Boeing 777-300 aircraft and 21 Boeing 787 family aircraft. The airline plans to take delivery of an additional 21 Boeing 787s as well as 22 Airbus A350s in 2017 and beyond.

In May 2016, American announced that it will phase out its fleet of twenty Embraer 190 aircraft and its fleet of nine Airbus A330-300 aircraft. While the A330-300, in particular, has been widely used on transatlantic routes at the Airport, the capacity these aircraft provides can be accommodated by new Boeing 787 aircraft entering the fleet as well as a large existing fleet of Boeing 777-200 and 767-300 aircraft. In CY 2017, American phased out the De Havilland Dash 8-100 aircraft from its regional fleet. While these aircraft had been deployed at the Airport to serve short-haul destinations, American has restored most of the capacity provided by these aircraft with other fleet types. American's decision to adjust capacity levels or discontinue service on a particular route may be based on any number of strategic considerations and is not necessarily driven by the availability of a specific fleet type.

10 American Airlines Group, Inc., 10-K, annual 2016 filing.

Table 4-14: Ranking of American Airlines at Its Hub Airports (CY 2016)

					DOMESTIC			INTERNATIONAL						
LOCATION (AIRPORT)	TOTAL AIRPORT ONBOARD PASSENGERS	TOTAL AA ONBOARD PASSENGERS	AA HUB PASSENGER RANK	AA SHARE OF TOTAL AIRPORT PASSENGERS	ONBOARD PASSENGERS	PASSENGER RANK	PERCENT SHARE	ONBOARD PASSENGERS	PASSENGER RANK	PERCENT SHARE	SCHEDULED AVERAGE DAILY DEPARTING SEATS	SEAT RANK	SCHEDULED AVERAGE DAILY DEPARTURES	DEPARTURES RANK
Dallas / Fort Worth	31,270,208	26,479,179	1	85%	23,488,518	1	88.7%	2,990,662	2	11.3%	89,694	1	748	1
Charlotte	21,665,541	19,756,996	2	91%	18,373,308	2	93.0%	1,383,688	3	7.0%	67,810	2	633	2
Miami	20,364,097	13,818,570	3	68%	8,421,876	6	60.9%	5,396,694	1	39.1%	47,533	3	318	5
Chicago - O'Hare	37,368,742	13,227,418	4	35%	12,364,583	3	93.5%	862,835	7	6.5%	44,797	4	448	3
Philadelphia	**14,550,662**	**10,256,009**	**5**	**70%**	**8,883,432**	**5**	**86.6%**	**1,372,577**	**4**	**13.4%**	**36,625**	**5**	**390**	**4**
Phoenix	21,245,544	10,027,907	6	47%	9,476,895	4	94.5%	551,013	8	5.5%	34,219	6	267	6
Los Angeles	39,852,551	7,926,557	7	20%	7,045,672	7	88.9%	880,886	6	11.1%	26,215	7	193	8
Washington - Reagan	11,434,962	5,634,173	8	49%	5,599,434	8	99.4%	34,739	10	0.6%	20,319	8	232	7
New York - LaGuardia	14,679,511	4,113,862	9	28%	3,984,974	9	96.9%	128,888	9	3.1%	15,059	9	152	9
New York - JFK	29,205,199	3,791,979	10	13%	2,482,473	10	65.5%	1,309,507	5	34.5%	13,296	10	95	10
American Network Total		198,512,589			168,334,340			30,178,249			687,574		6,329	

NOTES: Inclusive of American Airlines and US Airways; Revenue passengers only. Network total represents all departures points in the American Airlines network

SOURCES: U.S. Department of Transportation, T-100 Database; Innovata, July 2017.

PREPARED BY: Ricondo & Associates, Inc., July 2017.

Table 4-15: American Airlines Fleet Mix (CY 2016)

AIRCRAFT TYPE	OPERATING AIRCRAFT
Mainline	
Airbus A319	125
Airbus A320	51
Airbus A321	199
Airbus A330-200	15
Airbus A330-300	9
Boeing 737-800	284
Boeing 757-200	51
Boeing 767-300ER	31
Boeing 777-200ER	47
Boeing 777-300ER	20
Boeing 787-800	17
Boeing 787-900	4
Embraer 190	20
McDonnell Douglas MD-80	57
Subtotal	**930**
Regional	
Bombardier CRJ 200	35
Bombardier CRJ 700	61
Bombardier CRJ 900	54
De Havilland Dash 8-100	23
De Havilland Dash 8-300	11
Embraer ERJ 175	48
Embraer ERJ 140	13
Embraer ERJ 145	118
Subtotal	363
FLEET TOTAL	**1,293**

NOTE: Excludes aircraft operated by third party regional airlines.

SOURCE: American Airlines Group, Inc. 10-K, February 22, 2017.
PREPARED BY: Ricondo & Associates, Inc., July 2017.

4.5.1.2 THE AIRPORT'S ROLE IN AMERICAN'S ROUTE NETWORK

As of October 2017, American was scheduled to provide nonstop service to 88 domestic and 33 international destinations from the Airport in CY 2017.[11] In the transatlantic market, American serves 15 destinations. As measured by scheduled seat capacity in CY 2017, the Airport was the airline's busiest gateway to Europe, the second busiest gateway to Canada after Dallas Fort Worth International Airport, and the fifth busiest gateway to Latin America and the Caribbean after Miami, Dallas Fort Worth, Charlotte Douglas, and Phoenix Sky Harbor International Airports.

As shown on **Exhibit 4-7**, the Airport accounted for 8.7 percent of American's domestic scheduled seat capacity and 9.1 percent of the airline's international scheduled seat capacity among American's hub airports in CY 2017.

Publicly available sources of financial and operational data were used to estimate the financial performance of each of American hubs. While commonly used approaches were applied to allocate revenues and expenses, the estimates of hub profitability may differ from those of American, which has access to more detailed internal data and may use different allocation methodologies. **Exhibit 4-8** presents the relative profitability of American's hubs, which shows that the Airport is the fifth highest generator of operating revenues and the fifth highest contributor of operating profits. Historically, the Airport has outperformed other American hubs. However, the financial performance at legacy American hubs has improved since American emerged from bankruptcy and merged with US Airways in late 2013. As a result, the relative improvements at other hubs have brought American's system average profitability in line with the Airport, as presented in **Exhibit 4-9**.

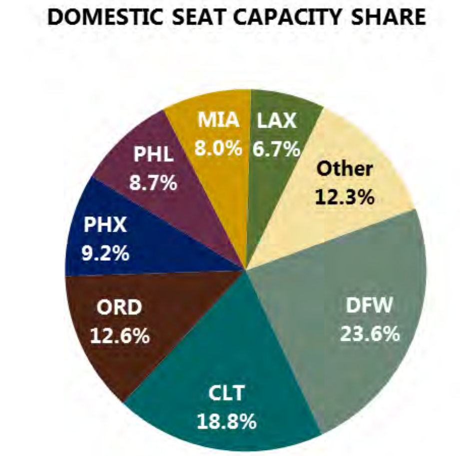
Table 4-16 presents an estimate of airport shares of revenue generated by American in the 12-month period ended in the fourth quarter of CY 2016. The Airport currently ranks fifth in the combined airline's network, with a 3.9 percent share of the airline's passenger revenue generation.

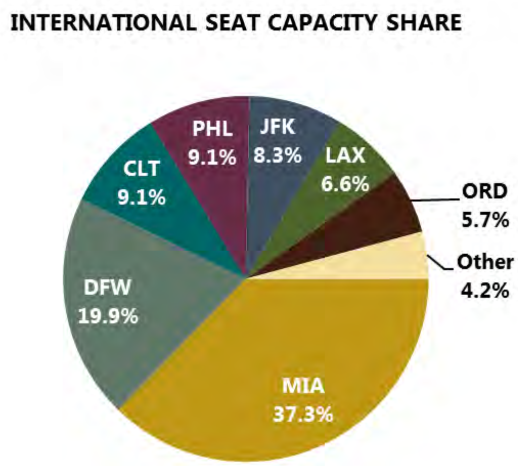
As shown on **Exhibit 4-10**, American's total numbers of enplaned passengers at the Airport had been steady at approximately 11 million per year from CY 2011 through CY 2015. However, American's total passengers decreased 8.4% to 10.2 million in CY 2016 on a 20.7% decrease in connecting passengers that was partially offset by a 4.5% increase in O&D passengers. The O&D percentage of total passenger increased to 56%, which is an increase from 49% in the prior year and 41% in CY 2011.

Domestic connecting passengers have decreased across American's network, including the Airport. **Exhibit 4-11** presents the year-over-year change in American's domestic passengers by connection point. When comparing data for FY 2016 with FY 2017, the decrease in the number of domestic connecting passengers at the Airport represented 0.6 of the total FY 2016 domestic O&D passengers. The analysis indicates that most of these passengers shifted to nonstop routings rather than to other American hubs. While domestic connections decreased across American's network, the number of domestic O&D passengers traveling on nonstop routings increased significantly, which resulted in a 5.1 percent increase year over year in total domestic O&D passengers for the year ended June 30, 2017. This increase would be expected as American and US Airways integrated their networks, enabling previous connecting itineraries to be accommodated via nonstop service.

[11] Includes seasonal service.

Exhibit 4-7: American Airlines Scheduled Network Capacity Share at Its Hub Airports (CY 2017)





NOTES: Percentages may not sum to 100% due to rounding.

CLT - Charlotte Douglas International Airport

DFW - Dallas/Fort Worth International Airport

JFK - John F. Kennedy International Airport

LAX - Los Angeles International Airport

MIA - Miami International Airport

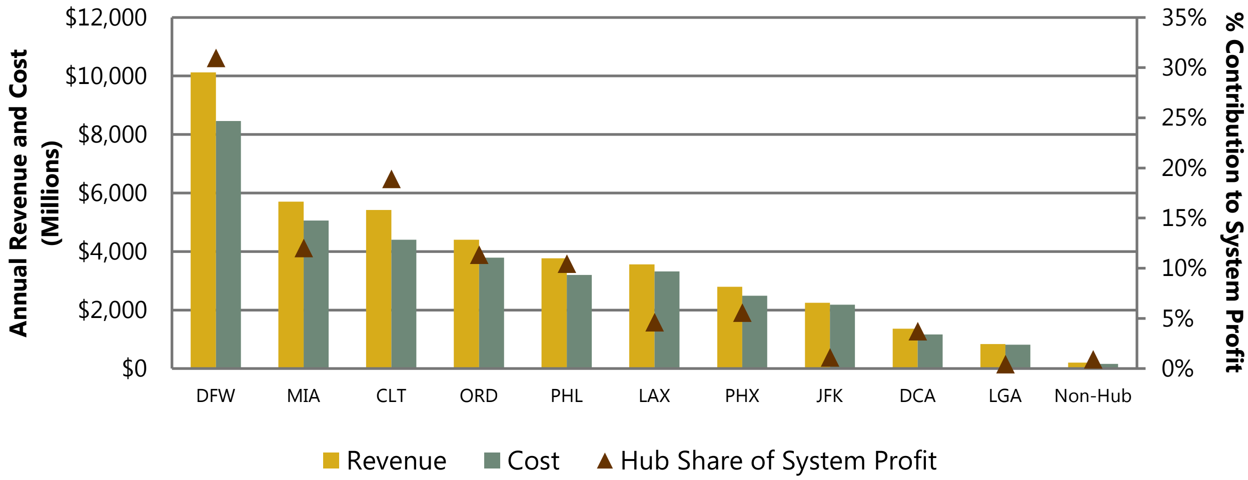
ORD – Chicago O'Hare International Airport

PHL - Philadelphia International Airport

PHX - Phoenix Sky Harbor International Airport

SOURCE: Innovata, September 2017.
PREPARED BY: Ricondo & Associates, Inc., October 2017.

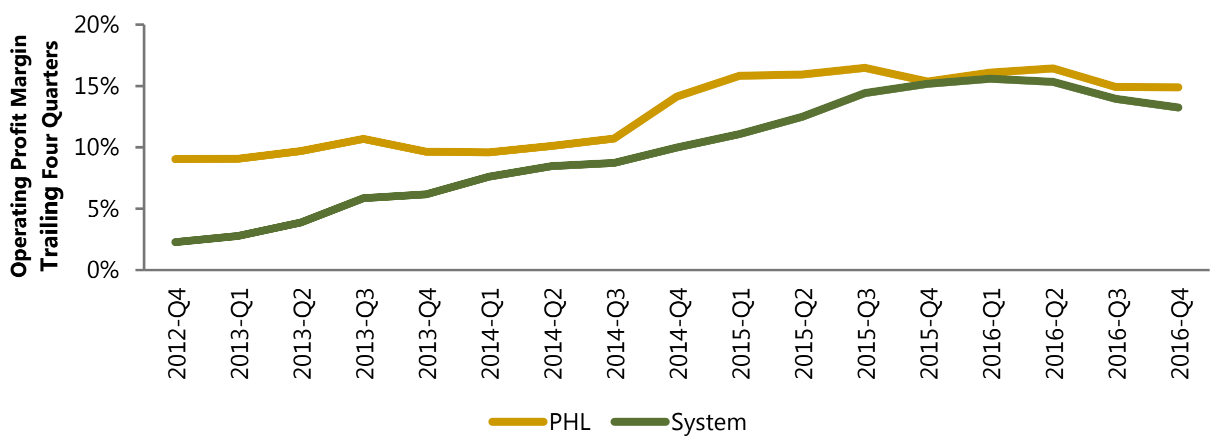
Exhibit 4-8: American Airlines Estimated Profitability by Hub (CY 2016)



NOTES: Inclusive of American Airlines and US Airways; Revenue represents total operating revenues, including ticket revenues and ancillary fees; Cost represents total operating costs to the airline, including direct operating expenses, aircraft ownership, and overhead costs.

SOURCES: U.S. Department of Transportation, Form 41 and T-100 Database; Ricondo & Associates, Inc. (analysis), July 2017.
PREPARED BY: Ricondo & Associates, Inc., July 2017.

Exhibit 4-9: American Airlines Estimated Historical Operating Profit Margin - PHL Hub and System



NOTES: Inclusive of American Airlines and US Airways; Q = Quarter.

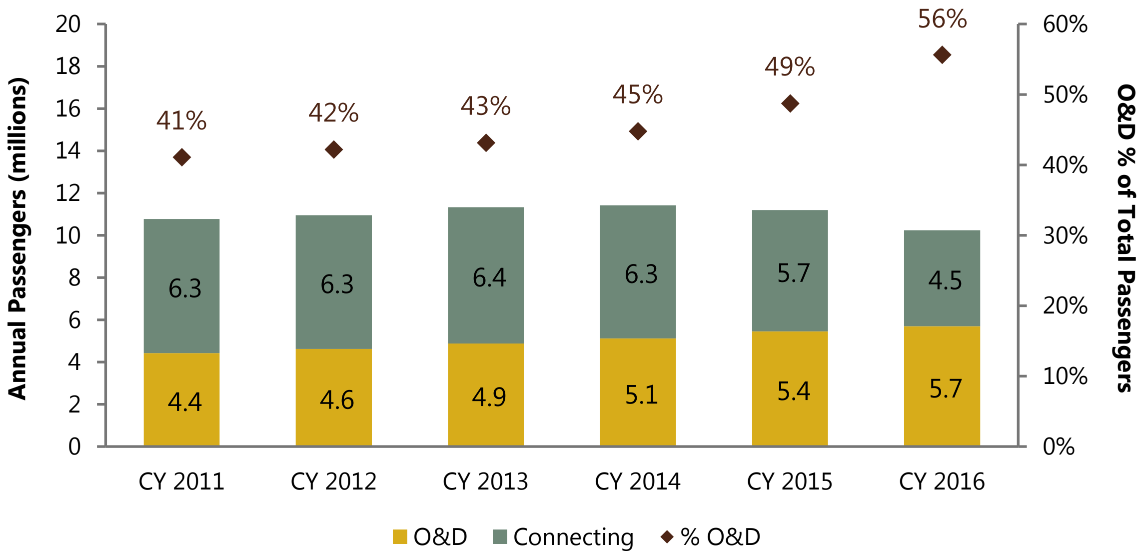
SOURCES: U.S. Department of Transportation, Form 41 and T-100 Database; Ricondo & Associates, Inc. (analysis), July 2017
PREPARED BY: Ricondo & Associates, Inc., July 2017.

Table 4-16: American Airlines Estimated Airport Passenger Revenue Generation as a Share of Network Revenue (CY 2016)

RANK	AIRPORT	ESTIMATED TOTAL NETWORK REVENUE CONTRIBUTION
1	Dallas Fort Worth International	6.3%
2	Miami International	4.4%
3	Los Angeles International	4.3%
4	Chicago O'Hare International	4.3%
5	**Philadelphia International**	**3.9%**
6	Charlotte Douglas International	3.1%
7	Phoenix Sky Harbor International	2.7%
8	John F. Kennedy International	2.6%
9	Reagan Washington National	2.5%
10	Boston-Logan International	2.0%
11	LaGuardia (New York)	2.0%
12	San Francisco International	1.7%
13	Orlando International	1.4%
14	Las Vegas McCarran International	1.3%
15	London Heathrow	1.3%
16	San Diego International	1.0%
17	Raleigh-Durham International	0.9%
18	Seattle-Tacoma International	0.9%
19	Tampa International	0.9%
20	Denver International	0.9%
21	Hartsfield-Jackson Atlanta International	0.9%
22	Austin-Bergstrom International	0.8%
23	Ministro Pistarini International (Buenos Aires)	0.8%
24	Newark Liberty International	0.8%
25	Saint Louis Lambert International	0.8%

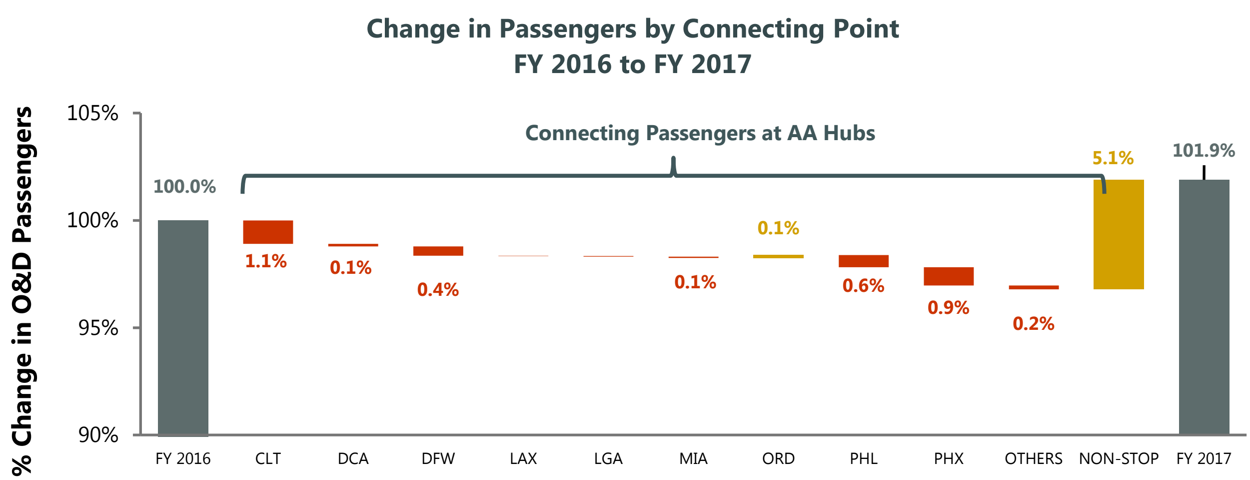
SOURCE: U.S. Department of Transportation, *Origin & Destination Survey of Airline Passenger Traffic*, July 2017.
PREPARED BY: Ricondo & Associates, Inc. July 2017.

Exhibit 4-10: American Airlines Historical Passenger Data at Philadelphia International Airport



SOURCES: U.S. Department of Transportation, July 2017; T-100 Database and *Origin & Destination Survey of Airline Passenger Traffic,* July 2017.
PREPARED BY: Ricondo & Associates, Inc. July 2017.

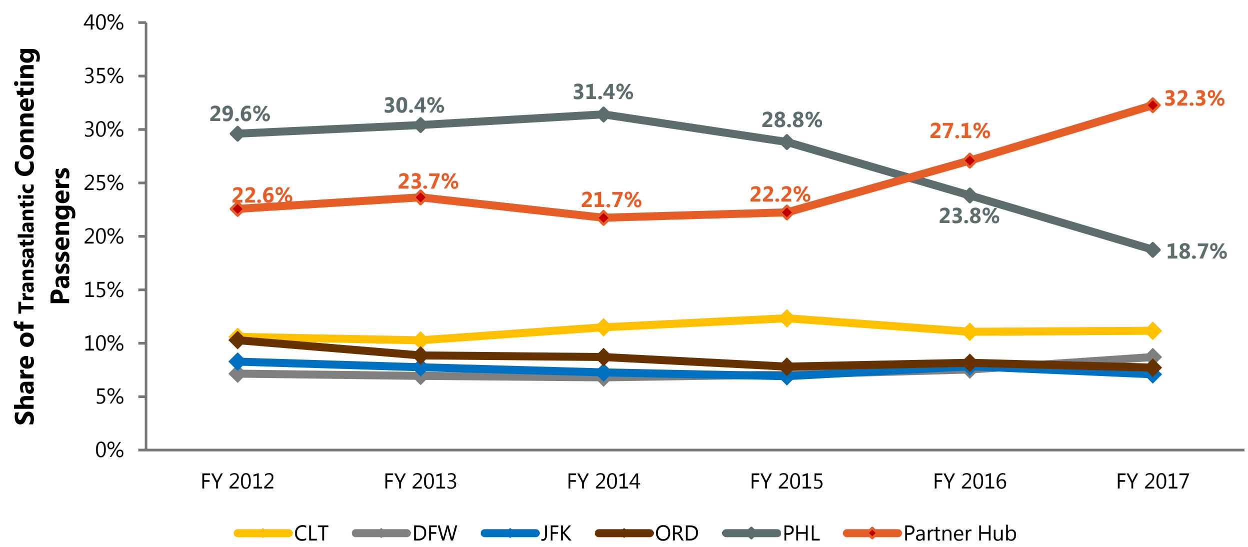
Exhibit 4-11: American Airlines Domestic Origin and Destination Passengers



SOURCE: MIDT July 2017
PREPARED BY: Ricondo & Associates, Inc., July 2017.

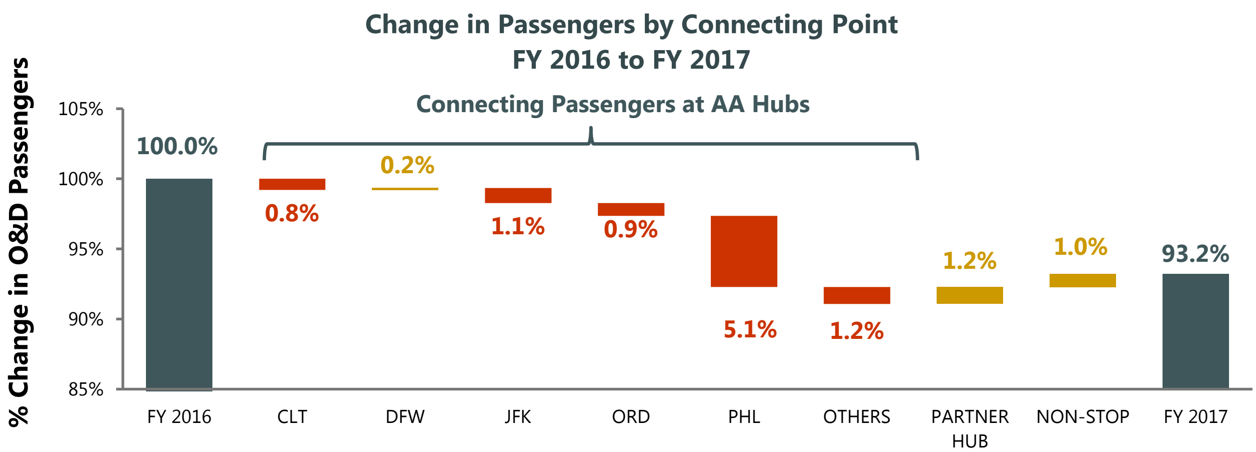
Exhibit 4-12 presents the share of American's transatlantic connections by hub over the past six calendar years, inclusive of connections at international alliance partner hubs. In FY 2017, the Airport accommodated approximately 21.0 percent of American's transatlantic connections, more than any other American hub. However, the Airport's share of American's transatlantic connections has decreased 6.7 percentage points year-over-year for the year ended December 31, 2016 on a 17.1 percent decrease in transatlantic connections at all American hubs. **Exhibit 4-13** presents the year-over-year change in transatlantic passenger flows by connecting point, which indicates that the decrease in transatlantic connections at the Airport is not the result of a shift to other American gateways in the U.S., most of which have experienced a decrease in transatlantic connecting passengers. This decrease has been partially offset by an increase in connections at partner hubs as well as passengers traveling on nonstop itineraries.

Exhibit 4-12: American Airlines Hub Share of Transatlantic Connecting Passengers



SOURCE: MIDT July 2017
PREPARED BY: Ricondo & Associates, Inc., July 2017.

Exhibit 4-13: American Airlines Transatlantic O&D Passengers

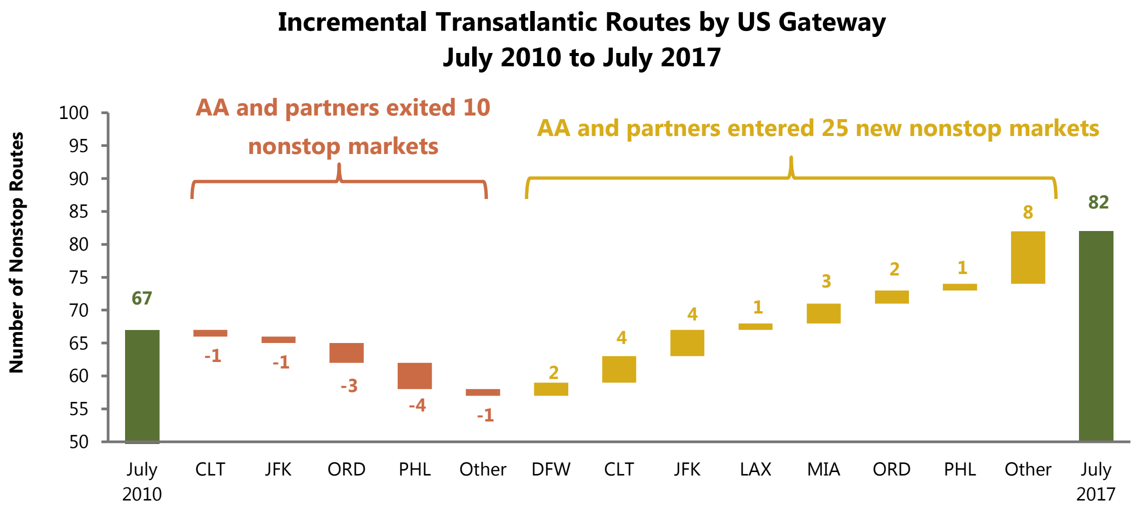


SOURCE: MIDT July 2017
PREPARED BY: Ricondo & Associates, Inc., July 2017.

American's transatlantic traffic patterns have been affected by its joint venture with its **one**world partners British Airways, Iberia, and Finnair, which has expanded American's options for routing passengers across the Atlantic. The joint venture allows the partner airlines to coordinate scheduling, pricing, and inventory management on transatlantic routes. With an expanded network, American can utilize its partner's hubs at London Heathrow Airport and Madrid-Barajas Airport in Spain to connect passengers in a similar way to how it has historically used its U.S. gateways. The joint venture was launched in 2010, and since that time the number of nonstop transatlantic routes operated by the participating airlines has increased from 67 to 82. Most of these new routes have been launched from John F. Kennedy International Airport (JFK) and other U.S. gateway airports, while the number of routes from the Airport has decreased from 18 to 15. **Exhibit 4-14** depicts the incremental changes in nonstop transatlantic routes operated by American and its joint venture partners by U.S. gateway airports from July 2010 to July 2017.

Although American and its partners have added transatlantic destinations from JFK, the role of the JFK gateway remains distinct from that of the Airport hub. American primarily serves New York O&D passengers from JFK, which accounts for 73 percent of onboard passengers at JFK, compared with 56 percent at the Airport. Opportunities for American to develop a meaningful connecting hub at JFK are limited by slot constraints, as well as the presence of Delta and JetBlue, both of which have a significantly larger presence at JFK than American. Additionally, the long-term effect of the transatlantic joint venture may be minimized given the historically finite nature of non-merger airline relationships. Although there is no current indication that the joint venture is ending, in the event it does, American's reliance on the Airport as an international gateway would increase.

Exhibit 4-14: Oneworld Transatlantic Joint Venture Incremental Nonstop Routes



NOTE: Inclusive of American Airlines, US Airways, British Airways, Iberia, and Finnair.
SOURCE: Innovata, December 2016.
PREPARED BY: Ricondo & Associates, Inc., April 2017.

Qatar Airways has operated daily flights between the Airport and Doha since April 2014. Although Qatar is not a member of the transatlantic joint venture, it is American's alliance partner and the two airlines reciprocally code share on flights connecting at the Airport. While the level of cooperation is not as deep as with the joint venture, codesharing enhances selling tickets across the two networks and increases connections at the Airport.

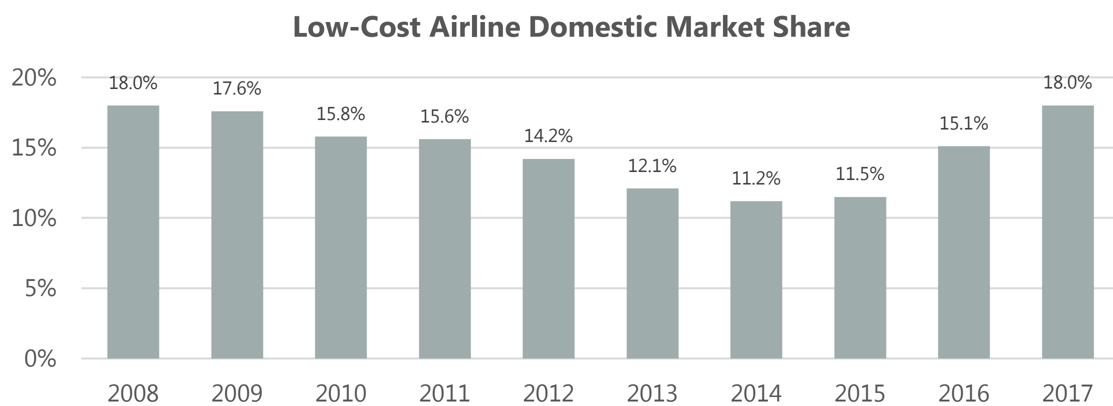
American's integration with US Airways and deeper cooperation with its alliance partners have affected the role of the Airport in American's route network. Connecting domestic and transatlantic traffic has decreased as passengers shift to nonstop routings as well as connections through an expanded network of hub airports. However, the strong local market in the Air Trade Area has supported an increase in the number of O&D passengers and the Airport maintains the critical role as American's primary transatlantic connecting hub, resulting in sustained profitability and strategic value to the airline.

4.5.2 LOW-COST AIRLINES

In addition to the availability of service to accommodate domestic and international passenger demand, airline service at an airport can also be characterized by the availability of competitive airfares. At airports where hubbing airlines maintain significant market shares of activity, service provided by low-cost airlines can complement overall airline service and also stimulate demand. **Table 4-17** presents historical data on the numbers of domestic passengers enplaned by the low-cost airlines serving the Airport in FY 2008 through FY 2017.

Table 4-17: Historical Low-Cost Airline Market Shares at the Airport

FISCAL YEAR	LOW-COST AIRLINE DOMESTIC ENPLANED PASSENGERS	ANNUAL INCREASE/ (DECREASE)	TOTAL AIRPORT DOMESTIC ENPLANED PASSENGERS	TOTAL AIRPORT INCREASE/ (DECREASE)	LOW-COST AIRLINE MARKET SHARE
2008	2,515,692	8.5%	13,971,056	0.8%	18.0%
2009	2,353,645	(6.4%)	13,357,446	(4.4%)	17.6%
2010	2,067,831	(12.1%)	13,113,239	(1.8%)	15.8%
2011	2,087,615	1.0%	13,407,158	2.2%	15.6%
2012	1,870,136	(10.4%)	13,134,251	(2.0%)	14.2%
2013	1,580,527	(15.5%)	13,021,515	(0.9%)	12.1%
2014	1,461,996	(7.5%)	13,059,804	0.3%	11.2%
2015	1,507,407	3.1%	13,072,574	0.1%	11.5%
2016	2,036,196	35.1%	13,484,253	3.1%	15.1%
2017	2,300,401	13.0%	12,775,495	(5.3%)	18.0%
Compound Annual Growth Rate					
2008 - 2010	-9.3%		-3.1%		
2010 - 2012	-4.9%		0.1%		
2012 - 2017	4.2%		-0.6%		
2008 - 2017	-1.0%		-1.0%		



NOTES: Low-cost airlines include AirTran Airways, ATA Airlines, Frontier Airlines, JetBlue Airways, Southwest Airlines, Spirit Airlines, USA 3000, and Virgin America. For Fiscal Years ended June 30.

SOURCES: City of Philadelphia records, August 2017

PREPARED BY: Ricondo & Associates, Inc., November 2017.

As shown, between FY 2008 and FY 2010, the number of low-cost airline domestic enplaned passengers at the Airport decreased by a compound annual rate of 9.3 percent, while the total number of Airport domestic enplaned passengers decreased by a compound annual rate of 3.1 percent. Between 2010 and 2012 low-cost airline domestic enplaned passengers continue to decrease at a compound annual rate of 4.9 percent while total Airport domestic enplaned passengers were flat. Southwest's operations at the Airport peaked in FY 2009, before the airline began gradually reducing service at the Airport and focusing capacity in new cities, such as Boston and New York (at LaGuardia Airport), and the airline's focus city, Baltimore. In FY 2011, Frontier joined Southwest and AirTran as a low-cost airline serving the Airport.

Between FY 2012 and FY 2017, the number of low-cost airline domestic enplaned passengers at the Airport increased by a compound annual rate of 4.2 percent, while the total number of Airport domestic enplaned passengers decreased by a compound annual growth rate of 0.6 percent. While decreases in the number of low-cost airline enplaned passengers in FY 2012, FY 2013, and FY 2014 can be attributed to Southwest's continued reduction of capacity at the Airport, the low-cost airline market has become increasingly competitive with the initiation of scheduled service at the Airport by JetBlue and Spirit in 2013. Virgin America began service at the Airport in 2012, which it suspended in October 2014 and re-instated in September 2017.

Alaska Airlines, while not a low-cost airline, initiated service at the Airport in 2012, introducing another competitor into the market. Despite Virgin America's decision to exit the Airport in October 2014 the number of low-cost airline enplaned passengers at the Airport increased 3.1 percent in FY 2015. In percentage terms, Frontier accounted for the largest year-over-year growth at the Airport, increasing from 0.2 percent of total enplaned passengers in FY 2014 to 1.2 percent of total enplaned passengers in FY 2015. Frontier accounted for the largest year-over-year growth at the Airport again in FY 2016, increasing its market share to 3.5 percent of total enplaned passengers. In FY 2017, Frontier continued to expand at the Airport, increasing its share to 4.4% of total enplaned passengers. During this period, the Airport was Frontier's fourth largest base of operations in terms of departing seats and destinations served. In FY 2017 Spirit outpaced all other carriers in terms of absolute and percentage growth year over year, increasing 47.4% and increasing total market share from 1.6 to 2.4 percent. The remaining low-cost airlines, Spirit, Southwest, and JetBlue, also increased their individual market shares and, in aggregate, low-cost airlines' total number of domestic enplaned passengers increased 13.0 percent in FY 2017, a year in which American decreased its total number of enplaned passengers and its market share.

4.6 Forecasts of Aviation Demand

As discussed in Section 4.5, the Airport is a hub for American and its regional affiliates. The Airport is a spoke in the route systems of other airlines, including a mix of domestic network and low-cost airlines, and a number of foreign-flag airlines. The enplaned passenger forecast was developed under the assumption that the airlines serving the Airport will continue to do so, and will increase service to the extent that the revenue generated by their passengers contributes toward profitability margins similar to those sought in recent years under the capacity discipline business model. It was assumed that airlines will adjust the numbers and/or mix of passengers (for example, O&D versus connecting and/or domestic versus international) to achieve these target margins as passenger demand and industry cost environments evolve. Therefore, the level of activity at the Airport is dependent upon the demand of various passenger types and the business decisions airlines make in determining whether or not to accommodate the various passenger types in the process of achieving their target margins.

Projections of enplaned passengers, aircraft operations, and landed weight were based on a number of underlying assumptions, including:

- The Airport will continue its role serving O&D passengers and as a major connecting hub for American. The Airport will continue to serve as a connecting hub for American's domestic route network and will continue to be one of American's major international gateways for European, Canadian, and Caribbean passengers. The Airport will also continue to serve all major O&D markets in the United States.

- For this analysis, and similar to the FAA's nationwide forecast, it was assumed that there will be no terrorist incidents during the Projection Period that would have significant, negative, or prolonged effects on aviation demand at the Airport or nationwide.
- Economic disturbances will occur during the Projection Period, causing year-to-year variations in airline traffic. However, long-term increases in nationwide and Airport traffic are projected.
- It was assumed that no major "acts of God" that may disrupt the national or global airspace system will occur during the Projection Period that would negatively affect aviation demand.

Many of the factors influencing aviation demand cannot be quantified, and any projection is subject to uncertainties. As a result, the projection process should not be viewed as precise. Actual airline traffic at the Airport may differ from the projections presented herein because events and circumstances rarely occur as projected and these differences may be material.

4.6.1 FORECAST OF UNDERLYING DEMAND IN TOTAL PASSENGER REVENUE TERMS

Socioeconomic regression analysis is used to identify predictive relationships between a dependent variable (e.g., passenger numbers, revenue, or other metrics representing passenger demand) and one or more independent variables (e.g., socioeconomic factors, such as population, employment, per capita personal income). These relationships, in the form of regression models, are subsequently used to forecast future growth in aviation activity using projections of independent variables. A standard measure of how well each socioeconomic (independent) variable explains passenger demand (the dependent variable) is the regression model's coefficient of determination, or R-squared. A result of 100 percent is the maximum value possible for a coefficient of determination and represents a perfect fit between the variables analyzed.

Historical relationships between passenger numbers and socioeconomic indicators are not as clear as the relationship between passenger revenues and socioeconomic indicators[12] because airlines can, especially at hub airports such as the Airport, select various passenger types at multiple fare levels to generate the revenues necessary to achieve their business goals. Total airline passenger revenue generated from passengers flying to, from, or connecting at the Airport has increased in close relationship with increases in several local and national socioeconomic indicators. **Table 4-18** presents the results of regression analyses conducted using historical total passenger revenues generated at the Airport and several socioeconomic indicators, with R-squared values above 70 percent.

Exhibit 4-15 shows the total amount of passenger revenue generated historically at the Airport between 2008 and 2017, as well as the amounts forecast when modeled as a function of the relationships shown in Table 4-18 with R-squared values of at least 90 percent. The forecast revenue values represented by the relationship with Philadelphia population were selected for this analysis as a conservative measure (reflective of the lowest growth) and because the R-squared value of this relationship was the highest.

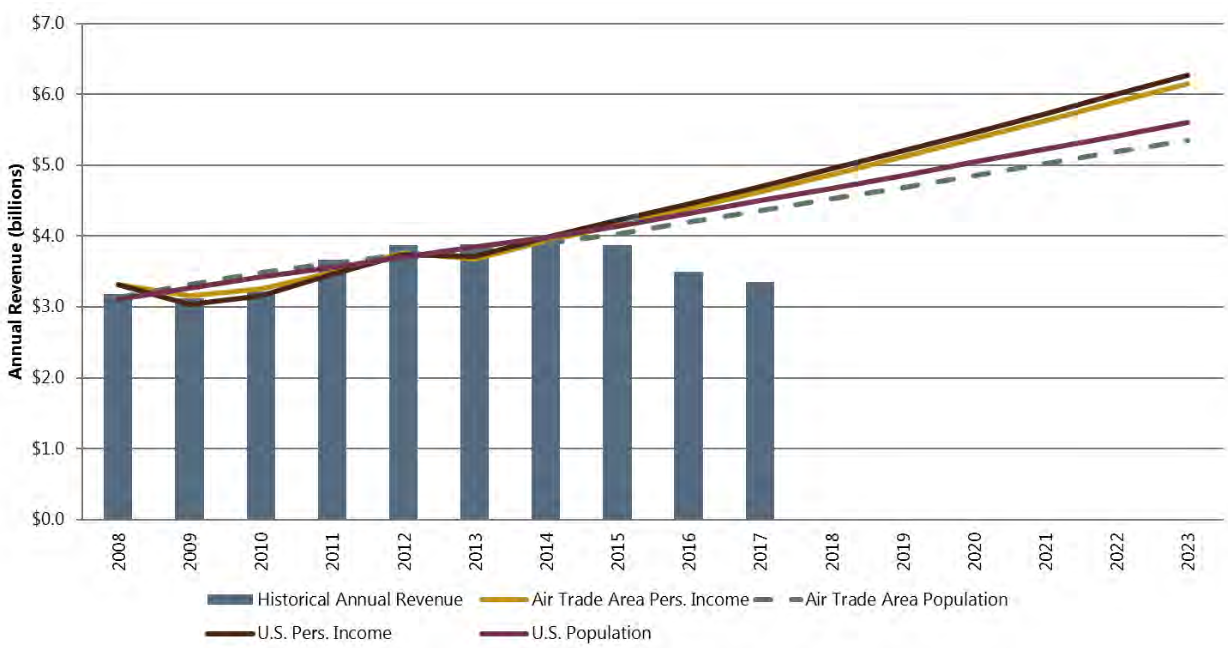
[12] Revenues are ticket revenues only and exclude ancillary fees (baggage fees, seat charges, etc.).

Table 4-18: Total Passenger Revenue Regression Analysis Results

INDEPENDENT VARIABLE	AREA	R-Squared
Employment	Air Trade Area	75%
Gross Regional Product	Air Trade Area	78%
Net Earnings	Air Trade Area	83%
Per Capita Personal Income	Air Trade Area	89%
Personal Income	Air Trade Area	92%
Population	Air Trade Area	94%
Total Earnings	Air Trade Area	77%
Employment	United States	76%
Gross Regional Product	United States	84%
Net Earnings	United States	81%
Per Capita Personal Income	United States	84%
Personal Income	United States	91%
Population	United States	93%
Total Earnings	United States	78%

SOURCES: Woods & Poole Economics, Inc., December 2016; Ricondo & Associates, Inc. (analysis) December 2016.
PREPARED BY: Ricondo & Associates, Inc., April 2017.

Exhibit 4-15: Historical and Forecast Total Passenger Revenue Results



NOTE: Lines represent forecast revenue as function of the economic relationship.

SOURCES: U.S. Department of Transportation, DB1B Survey, December 2016; Ricondo & Associates, Inc. (analysis), October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

4.6.2 AMERICAN AIRLINES HUB RESTRUCTURING IMPACT ON FORECAST

In October 2016, American announced a restructuring of its hub operation at the Airport in the first calendar quarter of 2017. This restructuring, as reflected in Innovata's schedule data, eliminates two of the airline's eight connecting banks at the Airport and reduces the number of connecting opportunities in several markets for which the Airport has been used as a connecting hub.

American's hub restructuring has also resulted in an 8.6 percent reduction in available airline seat capacity at the Airport in FY 2017 compared to that offered by American during the same period of the previous year. American's scheduled operations decreased 11.3 percent in the same period, although average aircraft seat capacity increased over this same period, as the airline continues to eliminate operations by regional jets at the Airport.

Due in large part to American's hub restructuring, enplanements at the Airport decreased from 15.7 million in FY 2016 to 14.8 million in FY 2017, a decrease of 5.6 percent. **Table 4-19** presents the components of total enplaned passenger numbers at the Airport in FY 2016 and as estimated for FY 2017.

The correlation of historical passenger revenues and the economic factors serve as the basis for the passenger activity forecast. However, an adjustment was necessary to account for the new hub structure at the Airport reflected in FY 2017. **Exhibit 4-16** shows the forecasted passenger revenues through the projection period with an adjustment that accounts for the new hub structure**.**

4.6.3 ESTIMATED PASSENGER NUMBERS GENERATED USING FORECAST REVENUE GROWTH (FY 2018- FY 2023)

Future passenger revenues will be generated through a combination of average fare growth and growth in the number of passengers at the Airport. Historical passenger airline revenue, average airfares, and numbers of enplaned passengers at the Airport from FY 2008 are presented in **Table 4-20**. It was assumed that the airlines serving the Airport will continue to generate revenues via a combination of passenger numbers and fares to exceed the associated operating costs by a desired target margin. For purposes of this analysis, only passenger fare-related revenues are presented, and are contrasted with a cost index per passenger (analyzed and applied separately for domestic and international passengers). The cost index is representative of the U.S. airline industry and not just of the Airport.[13] A historical perspective of margins achieved at the Airport is also provided in Table 4-20. As discussed in Section 4.5.1.2, the Airport has historically generated higher than average operating profit margins for American, taking into account revenues that include ancillary fees and using a cost index that is specific to American.

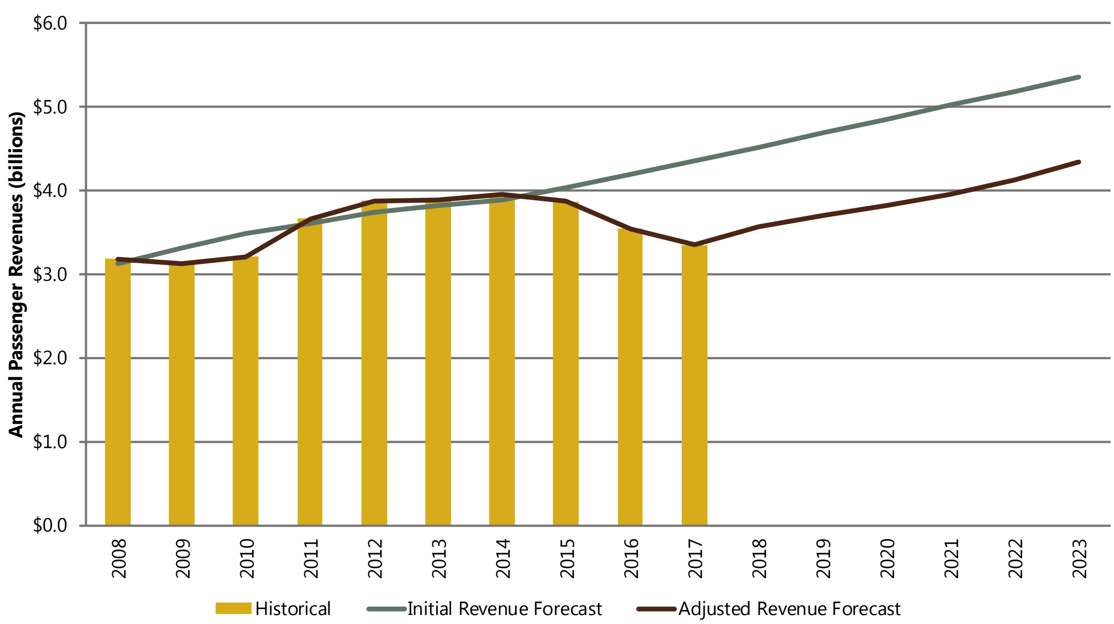
[13] As reported by U.S.-flag airlines on U.S. DOT Form 41.

Table 4-19: Enplaned Passengers by Segment and Impacts of Hub Restructuring

FISCAL YEAR	O&D PASSENGERS	CONNECTING PASSENGERS	TOTAL
Historical			
2008	9,561,878	6,491,095	16,052,973
2009	9,250,056	6,112,687	15,362,743
2010	9,050,361	6,143,380	15,193,741
2011	9,051,329	6,560,254	15,611,583
2012	8,843,459	6,500,667	15,344,126
2013	8,824,577	6,391,308	15,215,885
2014	8,914,473	6,401,580	15,316,053
2015	9,111,835	6,200,903	15,312,738
2016	9,990,211	5,693,347	15,683,558
2017 (Estimated) 1/	9,969,234	4,837,648	14,806,882
Compound Annual Growth Rate			
2008-2016	0.5%	-1.6%	-0.3%
2016-2017	(0.2%)	(15.0%)	(5.6%)

SOURCES: City of Philadelphia (Historical), December 2016; Ricondo & Associates, Inc. (Forecast) December 2016.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Exhibit 4-16: Forecast Total Passenger Airline Revenue Adjusted for Rebanking



NOTE:

1/ Segmentation of O&D and connecting passengers based on U.S. DOT reported statistics, which are estimated for FY 2017.

SOURCES: U.S. Department of Transportation, DB1B Survey, December 2016; Ricondo & Associates, Inc. (analysis), October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Table 4-20: Historical Passenger Airline Revenue, Average Airfare, Enplaned Passengers, and Operating Margin

FISCAL YEAR	TOTAL PASSENGER AIRLINE REVENUE 1/	AVERAGE FARE	ENPLANED PASSENGERS 2/	OPERATING MARGIN
2008	$3,182,823,066	$200	16,052,973	(15.3%)
2009	$3,126,676,033	$204	15,362,743	(14.7%)
2010	$3,213,036,577	$213	15,193,741	(5.6%)
2011	$3,662,657,995	$239	15,611,583	0.8%
2012	$3,877,327,851	$258	15,344,126	0.5%
2013	$3,884,710,462	$262	15,215,885	0.5%
2014	$3,958,991,805	$266	15,316,053	3.2%
2015	$3,869,244,949	$261	15,312,738	3.9%
2016	$3,544,333,092	$234	15,683,558	3.4%
2017 (Estimated) 3/	$3,351,218,502	$232	14,806,882	0.7%

NOTES: For Fiscal Years ended June 30.

1/ Airline revenues and operating margins exclude ancillary revenues and are representative of all airlines serving the Airport.

2/ Includes nonrevenue passengers.

3/ Segmentation of O&D and connecting passengers based on U.S. DOT reported statistics, which are estimated for FY 2017.

SOURCES: U.S. Department of Transportation, DB1B Survey, December 2016; Ricondo & Associates, Inc. (analysis), October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

The airlines serving the Airport generated negative operating margins until FY 2011, when the capacity discipline business model was implemented across the U.S. airline industry and margins turned positive. The Airport's margins increased markedly in FY 2016 with the effect of low fuel prices. It was assumed for this analysis that the airlines serving the Airport will seek to achieve margins similar to those experienced in FY 2014 and FY 2015, a period in which the capacity discipline business model and more normalized fuel prices were in place.

Future per passenger airline cost growth was estimated through the Projection Period. Cost elements were categorized into fuel- and non-fuel costs. Non-fuel costs were increased through the Projection Period according to industry-level trends observed in recent years related to such elements as labor, aircraft maintenance, and aircraft ownership. Fuel-related expenses were increased according to the expectations for energy prices assumed by the FAA in its 2016 *Aerospace Forecasts*.

Future average fares were increased in consideration of projected per passenger costs and the margin assumed to be sought by the airlines operating at the Airport. Forecast passenger revenues were subsequently divided by average passenger fares, resulting in a forecast of total passengers. **Table 4-21** presents the assumptions regarding total passenger revenue, average fares, numbers of enplaned passengers, the cost per passenger index, and the operating margins throughout the Projection Period.

Table 4-21: Assumptions of Cost, Operating Margin, and Fares, and Forecasts of Total Passenger Revenue and Enplaned Passengers

FISCAL YEAR	TOTAL PASSENGER REVENUE 1/	AVERAGE FARE	ENPLANED PASSENGERS 2/	COST PER PASSENGER INDEX	OPERATING MARGIN
Historical					
2008	$3,182,823,066	$200	16,052,973	$230	(15.3%)
2009	$3,126,676,033	$204	15,362,743	$234	(14.7%)
2010	$3,213,036,577	$213	15,193,741	$225	(5.6%)
2011	$3,662,657,995	$239	15,611,583	$237	0.8%
2012	$3,877,327,851	$258	15,344,126	$257	0.5%
2013	$3,884,710,462	$262	15,215,885	$261	0.5%
2014	$3,958,991,805	$266	15,316,053	$258	3.2%
2015	$3,869,244,949	$261	15,312,738	$250	3.9%
2016	$3,544,333,092	$234	15,683,558	$226	3.4%
2017 (Estimated) 3/	$3,352,368,124	$232	14,806,882	$230	0.7%
Forecast					
2018	$3,567,382,313	$240	15,253,336	$237	1.5%
2019	$3,696,178,819	$247	15,361,294	$244	1.5%
2020	$3,815,816,320	$258	15,421,796	$251	2.8%
2021	$3,951,127,517	$266	15,526,131	$258	3.2%
2022	$4,124,039,936	$276	15,629,782	$267	3.2%
2023	$4,340,220,825	$289	15,732,537	$279	3.2%
Compound Annual Growth Rate					
2008-2017	0.6%	1.7%	-0.9%	0.0%	
2016-2023	2.9%	3.1%	0.0%	3.1%	
2017-2023	4.4%	3.7%	1.0%	3.3%	

NOTES: For Fiscal Years ending June 30.

1/ Airline revenues and operating margins exclude ancillary revenues and are representative of all airlines serving the Airport.

2/ Includes nonrevenue passengers.

3/ Segmentation of O&D and connecting passengers based on U.S. DOT reported statistics, which are estimated for FY 2017.

SOURCES: U.S. Department of Transportation, DB1B Survey, December 2016 (Historical); Ricondo & Associates, Inc. (Forecast), October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

4.6.4 AIRPORT PASSENGER SEGMENTATION AND FORECAST

Table 4-19 presented the historical segmentation of passengers served at the Airport, as well as the estimated effects of American's hub restructuring on these segments. Similar to the process described above to total numbers of passengers, the mix of the four primary passenger segments served at the Airport (domestic O&D, domestic connecting, international O&D, and international connecting) was projected separately using a combination of socioeconomic regression analysis (considering passenger revenue as a function of various socioeconomic indicators), estimated per passenger cost increases (as described above), and operating margins that the airlines are assumed to seek in future years.

It was assumed that future operating margins generated by these passengers will be similar to those generated in FY 2014 and FY 2015 because of the capacity discipline business model and a normalized fuel cost environment. Average fares required for each of these passenger segments to achieve these projected margins were calculated, and the forecast revenue for each passenger segment was divided by these average fares to passenger numbers. **Table 4-22** shows the forecast passenger segmentation percentages and total passengers through FY 2023.

Table 4-22: Forecast Total Enplaned Passengers by Segment

FISCAL YEAR	O&D PASSENGERS	CONNECTING PASSENGERS	TOTAL
Historical			
2008	9,561,878	6,491,095	16,052,973
2009	9,250,056	6,112,687	15,362,743
2010	9,050,361	6,143,380	15,193,741
2011	9,051,329	6,560,254	15,611,583
2012	8,843,459	6,500,667	15,344,126
2013	8,824,577	6,391,308	15,215,885
2014	8,914,473	6,401,580	15,316,053
2015	9,111,835	6,200,903	15,312,738
2016	9,990,211	5,693,347	15,683,558
2017 (Estimated) 1/	9,969,234	4,837,648	14,806,882
Forecast			
2018	10,233,195	5,020,141	15,253,336
2019	10,271,525	5,089,770	15,361,294
2020	10,280,170	5,141,626	15,421,796
2021	10,320,016	5,206,115	15,526,131
2022	10,361,007	5,268,775	15,629,782
2023	10,403,011	5,329,526	15,732,537
Compound Annual Growth Rate			
2008-2017	0.5%	-3.2%	-0.9%
2016-2023	0.6%	(0.9%)	0.0%
2017-2023	0.7%	1.6%	1.0%

NOTES: For Fiscal Years ending June 30.

1/ Segmentation of O&D and connecting passengers based on U.S. DOT reported statistics, which are estimated for FY 2017.

SOURCES: City of Philadelphia (Historical), August 2017; Ricondo & Associates, Inc. (Forecast) October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

4.6.5 FORECAST AIRCRAFT OPERATIONS

During the Projection Period, the number of enplaned passengers at the Airport is forecast to increase at a compound annual growth rate of 1.0 percent, from 14.8 million in FY 2017 to 15.7 million in FY 2023. However, passenger airline aircraft operations are forecast to decrease by 0.2 percent annually during the Projection Period, from 337,459 in FY 2017 to 330,407 in FY 2023.

Much of the reduction in forecast passenger airline aircraft operations results from the hub restructuring implemented by American Airlines at the beginning of CY 2017. Increases in passenger numbers in the remainder of the Projection Period are expected to be accommodated by a combination of higher load factors on aircraft with higher average seat capacity. Average aircraft seat capacity is forecast to increase from 106.9 in FY 2017 to 115.9 in FY 2023. This increased seat capacity is expected to occur as a result of the continued industry trend away from aircraft with 50 or fewer seats. Currently, 39 percent of the passenger airline aircraft operations at the Airport are conducted using aircraft with 50 or fewer seats.

Average load factors are forecast to increase from 82.1 percent in FY 2017 to 82.2 percent in FY 2023, as airlines continue to strive to accommodate more passengers per flight in an effort to contain operating costs associated with passenger revenue generation. This is particularly likely as American restructures its hub at the Airport. Forecast passenger airline aircraft operations, average seat capacity, and load factors are presented in **Table 4-23**.

Cargo activity at the Airport is presented in **Table 4-24**. To forecast all-cargo airline aircraft operations, total cargo weight at the Airport was forecast using a market share approach. Since FY 2012, cargo weight at the Airport has accounted for between 1.9 percent and 2.0 percent of total U.S. cargo weight. Forecasts of total U.S. cargo weight were obtained from the 2016 FAA *Aerospace Forecasts*, and the historical relationship between cargo activity at the Airport and in the nation was applied to derive the Airport's share of U.S. cargo weight during the Projection Period. Total cargo weight at the Airport is forecast to increase from 448,667,000 pounds in FY 2017 to 501,137,000 pounds in FY 2023, a compound annual growth rate of 1.9 percent. All-cargo airline aircraft operations were then forecast by applying recent cargo operation ratios to forecasts of all-cargo airline volumes. All-cargo airline operations are forecast to grow from 13,268 operations in FY 2017 to 14,820 in FY 2023, a CAGR of 1.9 percent.

Forecasts of landed weights at the Airport are provided in **Table 4-25**. Landed weight is forecast to increase from 19,758,643 1,000-pound units in FY 2017 to 21,211,018 1,000-pound units in FY 2023, a compound annual growth rate of 1.2 percent.

Table 4-23: Forecast Passenger Airline Aircraft Operations

	DOMESTIC			INTERNATIONAL			TOTAL		
FISCAL YEAR	OPERATIONS	AVG. SEATS	LOAD FACTOR	OPERATIONS	AVG. SEATS	LOAD FACTOR	OPERATIONS	AVG. SEATS	LOAD FACTOR
Historical									
2008	397,750	95.0	74.0%	33,852	146.6	83.9%	431,602	99.0	75.1%
2009	387,493	93.7	73.6%	33,709	148.5	80.1%	421,202	98.1	74.4%
2010	373,629	92.7	75.7%	33,905	145.7	84.3%	407,534	97.1	76.8%
2011	374,284	93.4	76.7%	35,249	144.1	86.8%	409,533	97.8	78.0%
2012	367,775	91.7	77.9%	36,847	139.1	86.2%	404,622	96.0	79.0%
2013	362,838	89.5	80.2%	35,236	141.1	88.3%	398,074	94.1	81.3%
2014	346,411	92.1	81.9%	34,291	147.8	89.0%	380,702	97.1	82.8%
2015	338,790	93.8	82.3%	34,322	153.7	84.9%	373,112	99.3	82.6%
2016	330,664	97.7	83.4%	34,313	153.8	83.3%	364,977	103.0	83.4%
2017	305,610	102.3	81.8%	31,849	151.4	84.2%	337,459	106.9	82.1%
Forecast									
2018	309,376	104.7	81.3%	31,976	155.5	84.2%	341,352	109.4	81.7%
2019	305,334	106.3	81.4%	32,643	156.6	84.3%	337,977	111.2	81.8%
2020	301,348	107.7	81.5%	33,181	157.6	84.4%	334,529	112.6	81.9%
2021	298,423	109.0	81.6%	33,796	158.7	84.5%	332,219	114.0	82.0%
2022	295,978	110.1	81.7%	34,379	159.8	84.6%	330,357	115.3	82.1%
2023	295,480	110.6	81.8%	34,928	160.8	84.7%	330,407	115.9	82.2%
Compound Annual Growth Rate									
2008-2017	-2.9%	0.8%	1.1%	-0.7%	0.4%	0.0%	-2.7%	0.9%	1.0%
2017-2023	(0.3%)	0.8%	0.0%	0.9%	0.6%	0.1%	(0.2%)	0.8%	0.0%

NOTE: For Fiscal Years ending June 30.

SOURCES: City of Philadelphia (Historical), August 2017; Ricondo & Associates, Inc. (Forecast), October 2017.
PREPARED BY: Ricondo & Associates, Inc., November 2017.

Table 4-24: Cargo Activity Forecast

FISCAL YEAR	TOTAL CARGO WEIGHT (1,000-Pound Units)	CARGO AIRCRAFT OPERATIONS
Historical		
2008	597,821	18,660
2009	500,057	16,792
2010	461,039	14,210
2011	473,620	13,622
2012	443,882	13,010
2013	416,668	12,120
2014	425,206	12,044
2015	428,875	12,464
2016	437,758	13,366
2017	448,667	13,268
Forecast		
2018	458,925	13,571
2019	467,381	13,821
2020	475,078	14,049
2021	484,437	14,326
2022	493,097	14,582
2023	501,137	14,820
Compound Annual Growth Rate		
2008-2017	-3.1%	-3.7%
2017-2023	1.9%	1.9%

NOTES: For Fiscal Years ending June 30.

1/ Includes nonrevenue passengers.

SOURCES: City of Philadelphia, December 2016; U.S. Department of Transportation, DB1B Survey, December 2016 (Historical); Ricondo & Associates, Inc. (Forecast), December 2016.

PREPARED BY: Ricondo & Associates, Inc., November 2017.

Table 4-25: Forecast Aircraft Landed Weight

FISCAL YEAR	TOTAL AIRCRAFT LANDED WEIGHT (1,000-Pound Units)
Historical	
2008	23,823,660
2009	22,734,842
2010	21,654,771
2011	21,959,851
2012	21,358,171
2013	20,638,367
2014	20,691,256
2015	20,772,632
2016	20,821,203
2017	19,758,643
Forecast	
2018	20,698,752
2019	20,818,019
2020	20,872,822
2021	20,986,776
2022	21,099,599
2023	21,211,018
Compound Annual Growth Rate	
2008-2017	-2.1%
2017-2023	1.2%

NOTES: For Fiscal Years ending June 30.

1/ Includes nonrevenue passengers.

SOURCES: City of Philadelphia, August 2017; U.S. Department of Transportation, DB1B Survey, October 2017 (Historical); Ricondo & Associates, Inc. (Forecast), October 2017.

PREPARED BY: Ricondo & Associates, Inc., November 2017.

5. Financial Analysis

This chapter presents the financial framework of the Airport System, the financial effect following the issuance of the 2017 Bonds and the future bonds necessary to complete the funding of the approved CDP described in Chapter 2. Chapter 5 presents the following projections: Operating Expense; Project Revenues, including non-Airline revenues and Airline revenues and rentals, fees, and charges; Other Amounts Available for Debt Service, including PFC Revenues and the portion of the Aviation Operating Fund attributable to Amounts Available for Debt Service; and Debt Service Requirements. This chapter also discusses the reasonableness of Airline rates and charges and Debt Service coverage calculated in accordance with the Rate Covenant of the General Ordinance.

The Debt Service Requirements included in the financial analysis reflects Debt Service on bonds after the issuance of the 2017 Bonds, future bonds anticipated to fund the remainder of the CDP, and other short-term financing assumptions related to the issuance of commercial paper notes and direct loans.

5.1 Financial Framework

The Airport System is owned by the City, operated by the Division, and is accounted for as a self-supporting enterprise fund of the City on a Fiscal Year basis ending June 30. The City maintains the books, records, and account of the Airport System in accordance with generally accepted accounting principles and as required by the provisions of the General Ordinance and the Airport-Airline Use and Lease Agreement (the Airline Agreement). Neither City nor State of Pennsylvania tax revenues are pledged to the payment of Debt Service or the fund the cost of operation of the Airport System.

5.1.1 AIRPORT-AIRLINE USE AND LEASE AGREEMENT

Effective July 1, 2015, the City and the Airlines serving the Airport entered into a new Airline Agreement that establishes procedures for the annual adjustment of airline rentals, fees, and charges so that the Airport System generates Amounts Available for Debt Service at least sufficient to comply with the Rate Covenant.

Under the Airline Agreement, Capital Expenditures are deemed approved by the Signatory Airlines (the Airlines) unless they are specifically disapproved by a MII. The projects contained in the CDP described in Chapter 2 have received approval from the Airlines. This MII approval obligates the Airlines to pay rentals, fees, and charges as required to enable the City to comply with the Rate Covenant. The Airline Agreement establishes annual deposits required to fund the Bond Redemption and Improvement Account (the Bond R&I Account) and the Operation and Maintenance Account (the O&M Account) and the distribution of net revenues in the Outside Terminal Area (OTA) Cost Center.

The City has executed the Airline Agreement with the following 14 Airlines at the Airport: Air Canada, Alaska Airlines, American Airlines, British Airways, Delta Air Lines, FedEx, Frontier Airlines, JetBlue Airways, Lufthansa, Qatar Airways, Southwest Airlines, Spirit Airlines, United Airlines, and UPS. In the aggregate, including their affiliates, accounted for approximately 99.7 percent of the total landed weight at the Airport in FY 2017. Non-Signatory Airlines, airlines that are not signatory to the Airline Agreement or not affiliates to an Airline, accounted for the remaining 0.3 percent of landed weight at the Airport.

The Airline Agreement expires on June 30, 2020 with two additional one-year renewals that can be offered by the City and be considered executed if more than 50 percent of the Signatory Airlines accounting for more than 50 percent of the landed weight at the Airport agree to the renewal. For the financial analysis included in this report, it was assumed that the provisions of the Airline Agreement regarding the setting of rentals, fee, and charges, including the definition of Airport Cost Centers, Airline Cost Centers; and MII approval requirements, will remain in effect through the Projection Period ending FY 2023.

5.1.2 AIRPORT RENTS AND FEES

Under the Airline Agreement, the Terminal Rental Requirement, the Ramp Area Requirement, and the Airfield Area Requirement are established through a cost center residual rate-setting methodology. These requirements are collectively referred in the Airline Agreement as Airline Revenues, which are discussed in more detail later in this chapter.

The Airline Agreement sets forth the following Airline Cost Centers for the purpose of setting rents and fees to be recovered through Airlines Revenues:

- **Terminal Area.** The Terminal Area includes the Airport passenger terminal buildings, the sidewalk and curb adjacent to the landside of the terminal buildings, the boarding bridges and all pedestrian bridges connecting the terminal buildings with the landside vehicular parking garages.
- **Ramp Area.** The Ramp Area includes those outside operations areas of the Airport designated for the Terminal Area consisting of the aircraft parking positions, ramp space and canopy space that extend from the face of the Terminal Area to the outer limits of the vehicle service road to the South, bordering the fence line on the West, and to the taxilane object free area to the Northeast.
- **Airfield Area.** The Airfield Area includes the areas of the Airport comprising hard surface and grass areas within the airfield perimeter fence, reserved for aircraft operations and aircraft-related activities, including, but not limited to, areas provided for aircraft landing, taking-off, taxiing, safety overruns and parking, as designated from time to time; and other appurtenances on the Airport related to the aeronautical use of the Airport.
- **Other Buildings and Areas.** Other Buildings and Areas include those Airport facilities including, but not limited to: airline, general aviation and corporate hangars; commissary; fueling facilities; industrial facilities, airline freight, express and mail handling facilities; the eastside aprons and hangars; and certain

non-airline facilities (including office, retail, warehouses, etc.) including any property purchased for indirect aviation purposes.

- **Northeast Philadelphia Airport.** Northeast Philadelphia Airport includes the airport facilities operated by the Division located in the northeast portion of City.

The Terminal Area Requirement and the Ramp Area Requirement are derived by recovering the cost of Operating Expenses, Debt Service, and Fund Requirements net of non-Airline revenues allocable to the Terminal Area and Ramp Area Cost Centers, respectively. The Airfield Area Requirement is derived by recovering the cost of Operating Expenses, Debt Service, and Fund Requirements net non-Airline revenues allocable the Airfield Area, Other Buildings and Areas, and Northeast Philadelphia Airport Cost Centers.

5.1.3 AIRLINE REVENUE ALLOCATION

Under the Airline Agreement, the OTA Cost Center is a City cost center, which may be subject to revenue sharing with the Airlines. The OTA Cost Center includes the terminal roadway, hotel, parking and car rental facilities appurtenant, adjacent to or used in connection with the Airport as they now exist or may be developed, extended, or improved from time to time. Hotel, parking, cab and limousine, rental car facilities, advertising outside of the terminal, and certain rental car concession fee revenues are allocable to the OTA Cost Center.[1]

Net revenues remaining in the OTA after the payment of allocable Operating Expenses, Debt Service, and Fund Requirements in excess of $7,000,000 annually are split equally between the City and the Airlines. The Airlines' share of OTA net revenues is referred to as the Airline Revenue Allocation and is applied in the subsequent year to first offset any net costs in the Other Buildings and Areas Cost Center. If the Airline Revenue Allocation exceeds the net costs in this Cost Center, the excess will be allocated between the Terminal Area and Airfield Area Cost Centers based on the pro rata share of Airline Revenue allocable to each Cost Center.

5.2 Operating Expenses

Operating Expenses include expenses associated with operating and maintaining the Airport System, including airfields, terminals, and landside facilities.

5.2.1 HISTORICAL OPERATING EXPENSES

Operating Expenses for FY 2013 through FY 2017, as presented each year in the City's Financial Report of the Airport System filed with the Fiscal Agent, pursuant to Section 5.05 of the General Ordinance are presented in **Table 5-1**. Operating Expenses increased at a compound annual growth rate of 4.5 percent, from approximately $212.6 million in FY 2013 to approximately $253.5 in FY 2017. This increase in Operating Expenses can be primarily attributed to increasing contractual service costs and personnel and fringe benefits costs. The expenses shown in Table 5-1 reflect only expenses due and payable in each fiscal year and do not reflect certain

1 Per the Airline Agreement, Rental Car Concession Fees generated from Alamo and Enterprise car rental brands and any other new entrant rental car companies are allocable to the OTA Cost Center.

expenses that are not payable in that year, but recorded pursuant to Governmental Accounting Standards Board (GASB) 68 as reflected in the City's Division Comprehensive Annual Financial Report (CAFR).

Table 5-1: Historical Operating Expenses

(Dollars in Thousands for Fiscal Years Ending June 30)

	2013	2014	2015	2016	2017	COMPOUND ANNUAL GROWTH RATE
Total Operating Expenses (thousands)	$212,568	$221,685	$234,659	$239,425	$253,501	4.5%
Operating Expenses annual growth rate		4.3%	5.9%	2.0%	5.9%	
Enplaned Passengers (thousands)	15,216	15,316	15,313	15,684	14,807	-0.7%
Enplaned Passengers Growth Rate		0.7%	0.0%	2.4%	-5.6%	
Total Operating Expenses per Enplaned Passenger	$13.97	$14.47	$15.32	$15.27	$17.12	5.2%

NOTE: Operating Expenses includes required deposits to the Renewal Fund.

SOURCE: City of Philadelphia's Financial Report of the Airport System filed with the Fiscal Agent.
PREPARED BY: AVK Consulting, Inc., November 2017.

Operating Expenses increased from $239.4 million in FY 2016 to $253.5 million in FY 2017, which is attributable to increases in personnel and related fringe benefits, increased pension costs, and an acceleration in the replacement of vehicles and equipment deferred in FY 2008 through FY 2014.

The Airport System's Operating Expenses per enplaned passenger from FY 2013 to FY 2017 increased at a compound annual growth rate of 5.2 percent, from $13.97 in FY 2013 to $17.12 in FY 2017, which is attributable to the increase in Operating Expenses and the decrease in enplaned passengers in FY 2017.

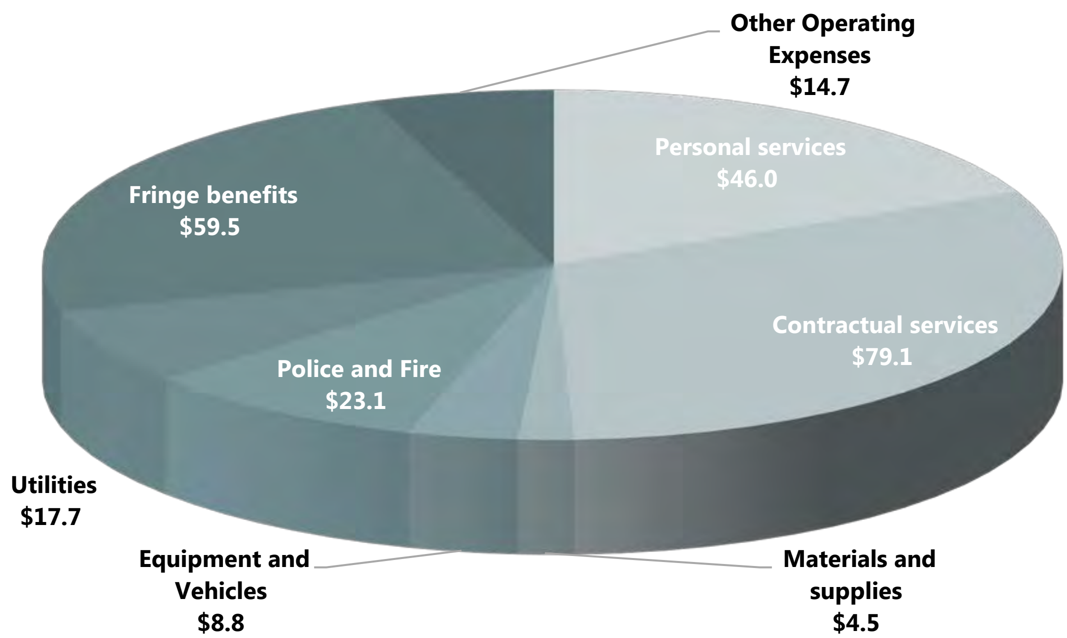
5.2.2 BUDGETED AND PROJECTED OPERATING EXPENSES

Annual Operating Budget

The City sets a budget for the airline rates and charges annually using the rate-making methodology set forth in the Airline Agreement, as described in Section 5.1 above, based on the budgeted Operating Expenses, non-Airline revenues, required fund deposits, and Debt Service. The Airport System's FY 2018 final airline rates and charges budget is the base from which Operating Expenses are projected for the purpose of the financial analysis included in this Report. Since the FY 2018 Operating Expense budget was finalized, several factors were also taken into consideration for the purpose of the financial analysis. These factors include current Airport staffing levels as of October 2017 compared to budget; the formation by the Airlines of Philadelphia Terminal & Equipment Company ("PhiliTEC"), which assumed the maintenance responsibility and maintenance cost for passenger boarding bridges, outbound baggage handling systems, international recheck systems, inbound arriving baggage handling systems, electric GSE charging stations, and lavatory waste stations effective August 1, 2017; the Airport's ability to purchase in FY 2016 and FY 2017 replacement equipment and vehicles, which had been deferred between FY 2008 and FY 2015; and recent downward trends in electricity costs.

Exhibit 5-1 presents Operating Expenses by cost category for FY 2017.

Exhibit 5-1: FY 2017 Operating Expenses by Cost Category



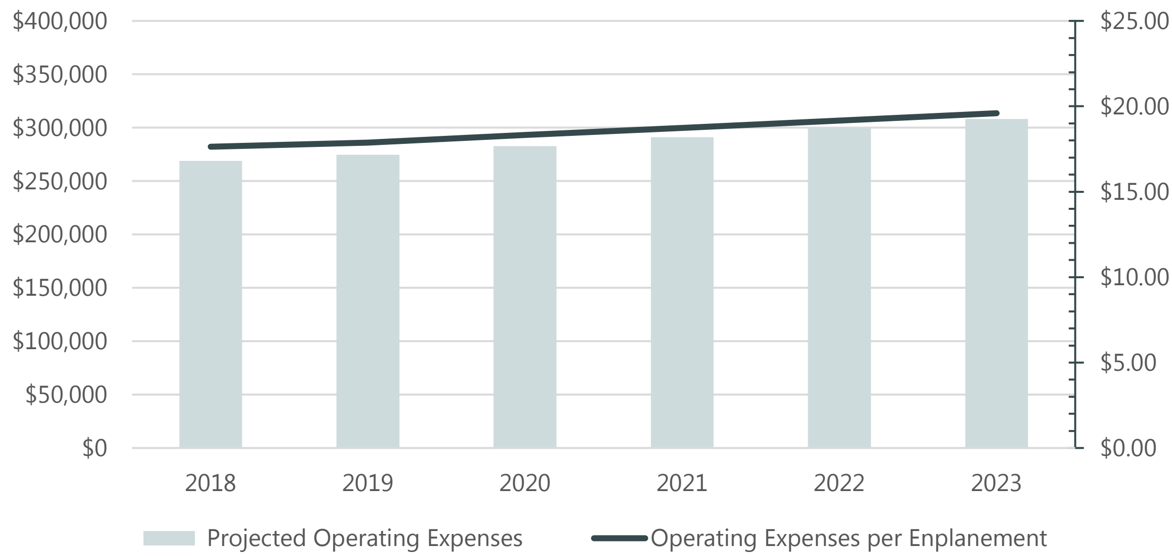
NOTE: Operating Expenses presented in millions.
SOURCE: City of Philadelphia's Financial Report of the Airport System filed with the Fiscal Agent, October 2017.
PREPARED BY: AVK Consulting, Inc., October 2017.

Operating Expense Projections

Operating Expense projections are based on the type of expense, expectations of future inflations (base inflation rate assumed to be 2.0 percent annually through the Projection Period), and labor negotiations. Since 2016, the Airport has been undertaking many initiatives that have resulted in increased spending. These initiatives, when completed, are expected to increase operating efficiencies at the Airport, which are projected to result in reduced annual increases in contractual services and materials and supplies. As a result, there are no incremental Operating Expenses anticipated for the CDP projects completed during the Projection Period. Projected Operating Expenses are presented in **Exhibit 5-2**.

Exhibit 5-2: Projected Operating Expenses

(Dollars in Thousands for Fiscal Years ending June 30)



SOURCE: City of Philadelphia, Division of Aviation; AVK Consulting, Inc., based on the analysis and assumptions in the Report, October 2017.
PREPARED BY: AVK Consulting, Inc., October 2017.

Operating Expenses are classified between Net Operating Expenses and Interdepartmental Charges. Net Operating Expenses are those expenses incurred directly by the Division and grouped into the following categories:

Personal Services

Personal services include salaries for the Division staff. Services from other City departments and fringe benefits for all direct and indirect employees working at the Airport System are included in Interdepartmental Charges. Personal services are projected to increase at an annual rate of 4.0 percent from FY 2018 through the Projection Period, attributable primarily to a projected 3.5 percent labor contract increase and to increased staffing requirements.

Contractual Services

Contractual Services expenses include the costs of outside contractors to provide maintenance of elevators and escalators, landscaping, HVAC maintenance, and other building repairs and maintenance. Contractual Services also includes shuttle bus services for employees and long-term parking, snow removal services, ground transportation counters and taxi dispatch services, and airport information counters. The CDP contains a significant amount of repair and rehabilitation projects that are expected to reduce the annual cost of maintenance performed by outside contractors. Contractual services are projected to increase by 2.25 percent in FY 2018 and then at 2.0 percent during the remainder of the Projection Period.

Materials and Supplies

Materials and supplies expenses includes costs associated with the purchase of cleaning supplies, office supplies, deicing and other snow removal materials, and other general maintenance supplies for the Airport System. Materials and supplies are projected to increase annually at the 2.0 percent rate of inflation.

Equipment

Equipment expenses includes costs associated with office furniture, janitorial equipment, computers and peripherals, radios, and cellular telephones and tablets. Equipment expenses are projected to increase annually at the 2.0 rate of inflation.

Taxes and Other

Taxes and other expenses include costs associated with the annual fixed $1,864,000 payment to Tinicum Township, Delaware County, and the Interboro School District, the annual fixed $1,000,000 payment to Tinicum Township, other realty taxes assessed, and payments made to replenish the Renewal Fund. As of FY 2017, the Renewal Fund is fully replenished, and no additional usage of the Renewal Fund is anticipated during the Projection Period. A $25,000 increase in taxes is projected to account for increases in property valuations during the Projection Period.

Interdepartmental Charges are those expenses charged by the City for services provided or assessed by other City Departments and grouped into the following categories:

Police and Fire

Police and Fire expenses includes primarily the cost of staff for police and fire personnel. These expenses also include some annual costs for contracted services and materials and supplies specifically for the police and fire operating at the Airport System. Police and Fire expenses are projected to increase at 3.5 percent annually due to negotiated labor increases.

Utilties

Utilities expenses includes electricity, natural gas, water and sewer, and stormwater expenses. For budget FY 2018, the Airport projected lower cost of utilities due to a decrease in kilowatt usage due in large part to the Airport's LED conversion program and historically low electricity rates. Utilities are projected to increase at 3.0 percent annually.

Fringe Benefits

Fringe benefits expenses includes costs associated with medical health and welfare benefits, worker's compensation and disability, FICA and Medicare taxes, group legal and life insurance, current pension costs for all employees assigned to the Airport, and the Airport's pro rate share of the City's annual payment for pension obligation bonds. Fringe benefits expenses are projected to increase at an annual rate of 3.5 percent.

Other Interdepartmental Charges

Other Interdepartmental Charges include insurance costs; other City services, including legal, procurement, and central finance; fleet management services and vehicle purchases, and indemnities. Services provided by the other City Departments mentioned, including fleet management, are projected to increase at 3.5 percent annually based on projected labor negotiations increases. Insurance costs are projected to increase at 1.5 percent annually based on the Airport's historical negotiation of claims. Vehicles purchases includes an annual allowance for the replacement of Airport System vehicles. Indemnities is projected to increase at $25,000 annually to allow for the settlement of claims.

5.3 Non-Airline Revenues

Non-Airline Revenues consist of those Project Revenues generated at the Airport System from sources other than Airlines (e.g., automobile parking, rental cars, restaurant, retail, landside building and ground rents, hangar and cargo rentals). A majority of the Airport System's non-Airline revenues are generated from concessions. **Table 5-2** presents concession revenues at the Airport from FY 2013 through FY 2017. As shown concession revenues were approximately $76.1 million in FY 2013, and increased to approximately $98.6 million in FY 2017, reflecting a compound annual growth rate of 6.7 percent during that period. The increase in FY 2013 through FY 2017 resulted from enhanced concession offerings at the Airport, the entry of Transportation Network Companies (TNCs), and increased utilization of the Airport's long-term parking lot.

Table 5-2: Historical Concession Revenues

(Dollars in Thousands for Fiscal Years Ending June 30)

	2013	2014	2015	2016	2017	COMPOUND ANNUAL GROWTH RATE
Concession Revenues						
Automobile Parking	$23,939	$23,756	$27,824	$28,600	$32,556	
Rental Cars	19,352	19,130	17,973	18,925	19,037	
Restaurants and Retail	23,651	27,241	29,665	28,871	29,845	
Ground Transportation	1,717	2,872	3,233	3,821	6,851	
Other	7,407	7,998	8,598	9,839	10,299	
	$76,067	$80,997	$87,293	$90,057	$98,588	6.7%
Total Concession Revenues Annual Growth Rate		6.5%	7.8%	3.2%	9.5%	
Enplaned Passengers (thousands)	15,216	15,316	15,313	15,684	14,807	-0.7%
Enplaned Passengers Growth Rate		0.7%	0.0%	2.4%	-5.6%	
Concession Revenues per Enplaned Passenger	**$5.00**	**$5.29**	**$5.70**	**$5.74**	**$6.66**	**7.4%**
O&D Passengers (thousands)	8,825	8,914	9,112	9,990	9,969	3.1%
O&D Passengers Growth Rate		1.0%	2.2%	9.6%	-0.2%	
Parking, Rental Cars, and Ground Transportation per O&D Passenger	**$5.10**	**$5.13**	**$5.38**	**$5.14**	**$5.86**	**3.5%**

SOURCE: City of Philadelphia, Division of Aviation.
PREPARED BY: AVK Consulting, Inc., November 2017.

The Airport's concession revenues per enplanement increased from $5.00 in FY 2013 to $6.66 in FY 2017, which represents a compound annual growth rate of 7.4 percent. Automobile parking, rental cars, and ground transportation revenues per O&D passenger increased from $5.10 in FY 2013 to $5.86 in FY 2017, or at a compound annual rate of 3.5 percent.

5.3.1 BUDGETED AND PROJECTED NON-AIRLINE REVENUES

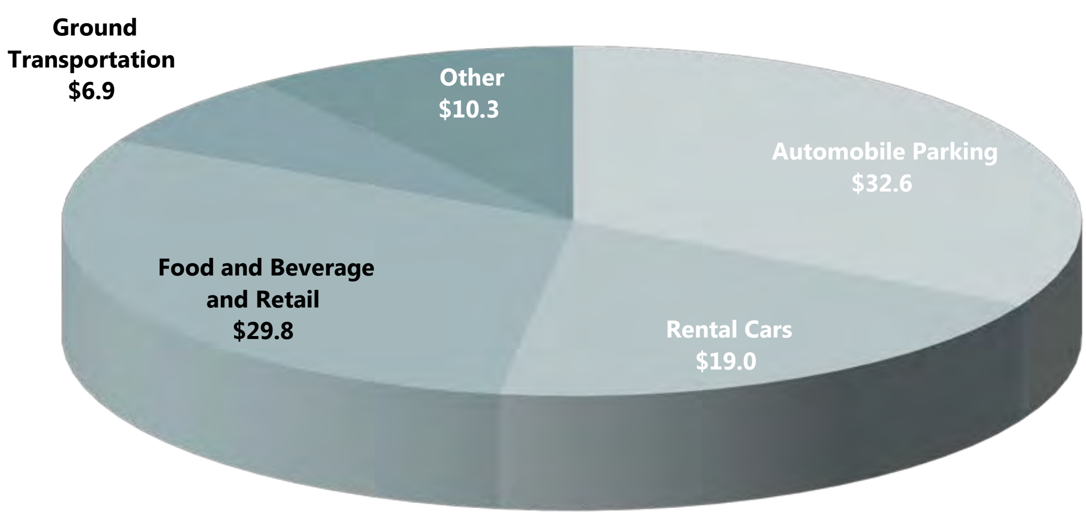
Non-Airline revenues include revenues from concessions, including automobile parking, rental cars, restaurants and retail, ground transportation, advertising, hotel, inflight catering, and other concessions; building and ground rentals; hangar and cargo rentals; utility sales; other landing and fuel flowage fees; and miscellaneous revenues, including grants, sale or disposal of assets, and interest income.

5.3.1.1 Concessions

Concession revenues include those revenues derived from concessionaires in the terminal, such as restaurants and retail shops, and the Airport's landside operations such as automobile parking, rental cars, and other ground transportation offerings.

Exhibit 5-3 presents the breakdown of budgeted FY 2017 concession revenues by category.

Exhibit 5-3: FY 2017 Concession Revenues by Category



NOTE: Concession revenues presented in millions.

SOURCE: City of Philadelphia's Financial Report of the Airport System filed with the Fiscal Agent, October 2017.
PREPARED BY: AVK Consulting, Inc., October 2017.

5.3.1.2 Automobile Parking Revenues

Automobile parking garages and lots at the Airport are operated by the Philadelphia Parking Authority (PPA), which has the responsibility for operating Airport parking through contract and lease agreements that extend to 2030. PPA pays the annual rent to the City based on the net revenues generated from parking operations April 1st through March 31st, PPA's fiscal year. The Airport receives the net amount of gross parking revenues less a 15 percent City parking tax, direct operating expenses, debt service on bonds issued by PPA, and allocated administrative expenses.

PPA may issue new bonds to refinance short-term borrowing and fund capital improvements sometime over the next several months. The net parking revenues projected in this analysis include the projected results of this financing and of the expected demand for parking through the Projection Period. For the purpose of this analysis, demand for parking at the Airport is expected to decrease during the Projection Period based on increased competition from new modes of transportation, including the emergence and rapid growth of the TNCs. Parking transactions are projected to decrease at an average annual rate of 2.1 percent from FY 2018 through FY 2023. The analysis also assumes parking revenue per transaction will increase 10 percent every three years as a result of increases to the parking rates at the Airport. FY 2018 parking revenues were budgeted at $30.8 million. Parking revenues are projected to increase to approximately $39.0 million in FY 2019, reflecting a projected parking rate increase, and then decrease to approximately $36.8 million by FY 2023, representing an average annual decrease of 1.4 percent during this period.

5.3.1.3 Other Concessions Revenues

Rental Cars

Seven rental car brands currently operate at the Airport. They include Alamo Rent A Car, Avis Rent A Car System, Budget Rent A Car System, Dollar Rent A Car, Enterprise Rent-A-Car, Hertz Rent a Car, and National Car Rental. E-Z Rent-A-Car, Payless Car Rental, Sixt rent a car, and Thrifty Car Rental operate off-Airport. Based on the Airport Rules and Regulations all on- and off-Airport rentals car companies serving the Airport are required to pay 10 percent of gross revenues to the Airport. Budgeted rental car revenues for FY 2018 are approximately $18.6 million. Rental car revenues per contract are projected to increase with inflation at 2.0 percent annually, while rental car transactions are projected to decrease through the Projection Period based on increasing competition from other modes of transportation to and from the Airport. Rental car revenues are projected to decrease from $18.6 million in FY 2018 to $17.9 million in FY 2023, representing an average annual decrease of 0.7 percent during the Projection Period.

Restaurants and Retail

In January 2015, the City entered into concession management agreement with MarketPlace PHL, LLC. The initial term of this agreement extends to December 31, 2021, with additional renewals that could extend this lease to December 31, 2026. Terminal concessions managed by MarketPlace under this agreement include all restaurants, retail, including duty free, bank ATMs, and other passenger services. This program consists of approximately 180 shops, restaurants, retail carts and passenger services throughout Terminals A-West through F. The lease agreement requires MarketPlace PHL, LLC to remit rents to the City in the form of total gross concession revenues, net of the concession management fee of 9.75 percent. MarketPlace is currently working with the City to develop additional restaurant space within some of the holdrooms in Terminals B and C, some of which opened in FY 2017. This space is designed to improve the customer experience, but is not expected to produce significant incremental revenue.

Restaurant and retail revenues projected to increase with passenger activity and inflation. The budgeted revenues for FY 2018 are approximately $29.3 million and are projected to increase to approximately $36.8 million in FY 2023.

Ground Transportation

Ground Transportation revenues included TNC revenues, taxis and limousine revenues, and off-Airport parking transaction revenues. The TNCs operating at the Airport pay a $3.00 pick-up fee and a $2.60 drop-off fee. The City began charging these fees in October 2016. Since that time, monthly fees generated have increased from approximately $280,000 per month to over $500,000 per month. Based on the rapid growth expected for TNCs usage at the Airport, it is projected that TNC usage as a percentage of O&D passengers will increase from its current market share of 7.5 percent to 11.0 percent by FY 2023. This increase includes a shift in market share from parking, rental cars, and other ground transportation providers and a projected increase in the number of passengers using TNCs instead of being dropped off at the Airport.

As a result of this anticipated trend, on-Airport parking and rental car revenues, taxi and limo and off-Airport parking revenues are projected to decrease over the Projection Period. TNC revenues are projected to increase from approximately $3.7 million in FY 2018 to approximately $6.4 million in FY 2023, which will roughly offset decreases in revenues from on and off-parking, rental cars, taxis, and limousines. During this same period other ground transportation revenues are projected to decrease from approximately $2.9 million in FY 2018 to approximately $2.5 million in FY 2023.

Other Concessions

Other concessions include revenues from the on-Airport hotel; advertising; inflight catering fees; and other concessionable revenues from ground handlers, airline clubs, and CNN. Marriot Corporation operates the hotel under an agreement that extends to November 1, 2045. Under the term of this agreement, Marriott pays the greater of an $800,000 Minimum Annual Guarantee (MAG) or 6 percent of gross revenues. Hotel revenues are budgeted at approximately $2.1 million in FY 2018 and is projected to increase to approximately $2.2 million in FY 2023. The current advertising agreement with Clear Channel has a seven-year term, which was effective May 1, 2012. The current MAG is $3,075,000 annually through the remainder of the agreement. Advertising revenues have done better than in MAG in recent years as a result of the several major events, which were hosted by the City, and increased advertising opportunities. Advertising revenues are projected to increase with inflation through the Projection Period. Inflight caterers are required under the Airport’s Rule and Regulation to pay a 10 percent concession fee. Inflight catering fees are projected to increase from approximately $2.7 million in FY 2018 to approximately $2.9 million in FY 2023.

5.3.1.4 Other Non-Airline Revenue

Building and Ground Rentals

Building and ground rental revenues include non-Airline space rentals in the Terminal Area, the Airlines payment for capital cost recovery associated with Airport-owned loading bridges and baggage systems, fixed base operator agreements at the Airport and Northeast Airport, International Plaza net rents[2], corporate hangar ground rents, cargo and freight forwarder ground rentals, and rental car facility rents. Rentals under this category are projected to increase based on contractual allowances for annual Consumer Price Index (CPI) adjustments or other negotiated rent increases.

Hangar and Cargo Rentals

Hangar and cargo rentals revenues includes building and ramp rentals for various hangars and cargo buildings and ramps at the Airport and Northeast Airport. Rentals under this category are projected to increase based on contractual allowances for annual CPI adjustments or other negotiated rent increases.

Utility Sales

Utility sales revenues includes the recovery of the cost of utilities directly from Airport System tenants. Airlines are not charged directly for utility recovery in the Terminal Area, but are charged for cargo facilities. Utility sales are projected to increase with increases in the cost of utilities.

Other Landing and Fuel Flowage Fees

Other landing and fuel flowage fees revenues include landing fees paid and fuel flowage fees paid by non-Signatory Airlines and itinerants and general aviation aircraft operating out of fixed-base operator (FBO) facilities or corporate hangars. Minimum landing fees, non-Signatory landing fees, and fuel flowage fees are set annually by regulation. Per the Airline Agreement, Airlines are exempt from fuel flowage fees. Other landing and fuel flowage fees are forecast to increase with the Signatory Airline Landing Fee Rate and inflation.

Miscellaneous

Miscellaneous revenues include ground transportation monitor fees, grants received for law enforcement officers and canine, other Federal Emergency Management Agency (FEMA) grant reimbursements, other miscellaneous fees for sale or disposal of assets, and interest income. Miscellaneous revenues are projected to increase based on historical averages and the 2.0 percent rate of inflation.

Non-Airline Revenues Related to Future Projects

There are no assumed incremental non-Airline Revenues associated with the CDP described in Chapter 2 of this Report, including the 2017 Projects.

Exhibit 5-4 presents the projected non-Airline revenues during the Projection Period.

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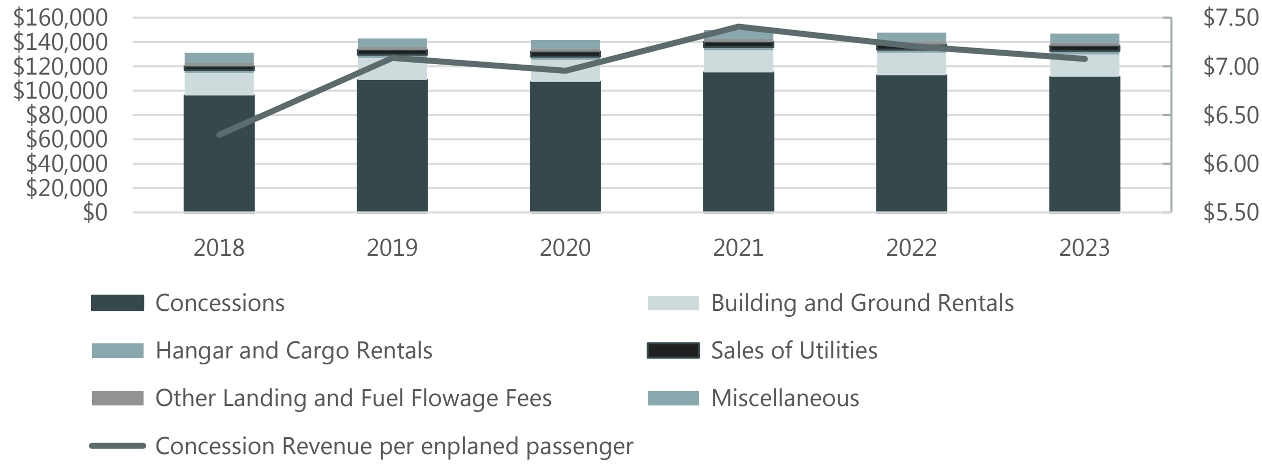
2 International Plaza rents available after payments made to pay down commercial paper notes and annual interest.

Exhibit 5-4: Projected Non-Airline Revenues

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCES: City of Philadelphia, Division of Aviation; AVK Consulting, Inc., based on the analysis and assumptions in the Report. November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

5.4 Other Amounts Available for Debt Service

5.4.1 PASSENGER FACILITY CHARGE REVENUE

The City has FAA approval to impose a PFC at the Airport and to use PFC Revenue for approved Airport projects, including some airfield, terminal, and access control projects in the CDP.

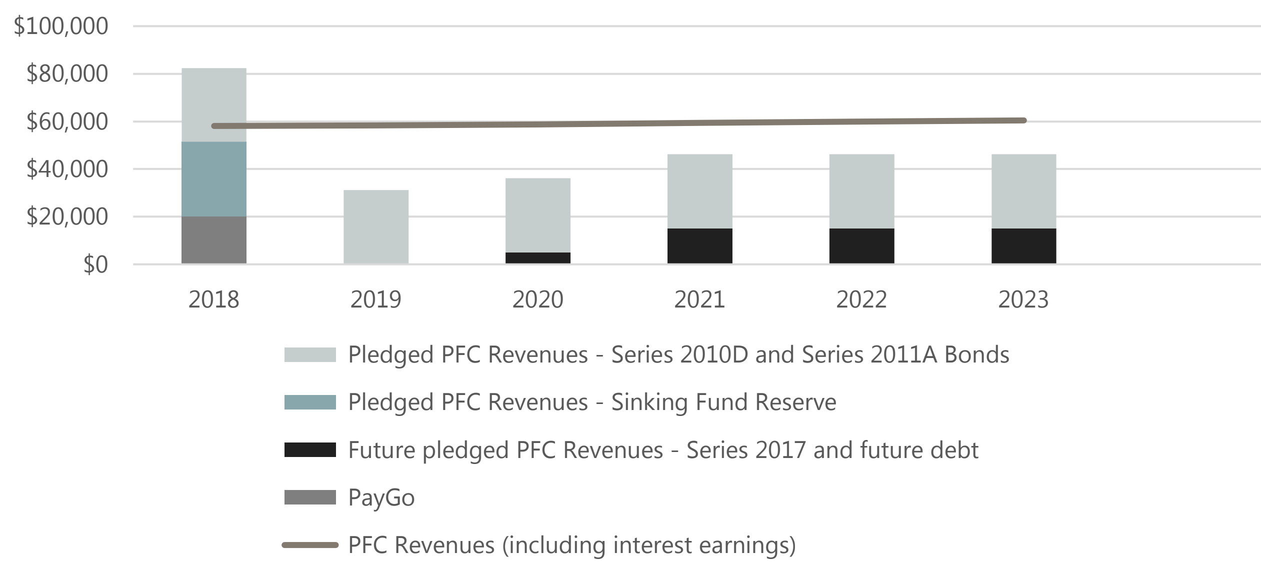
PFC Program Highlights

- The City collects a $4.50 PFC per eligible enplaned passenger less an $0.11 airline processing charge. No increase in the PFC collection level was assumed in the projections. No decrease in the PFC collection level is required based on current PFC approvals.
- Through June 30, 2017, the City has received authority to impose a PFC and use approximately $1.56 billion of PFC Revenues at the Airport. The estimated charge expiration date to collect this amount is May 2021. As of June 2017, PFC Revenues received by the City for use at the Airport, including investment earnings, totaled approximately $1.22 billion.
- In FY 2017, PFC Revenues totaled approximately $55.2 million, reflecting PFCs paid by approximately 84.8 percent of enplanements at the Airport.
- The estimated balance in the City's PFC Revenue Fund as of June 30, 2017 was approximately $89.0 million.
- In FY 2018, the Airport transferred $31.0 million of PFC Revenues from the Aviation Capital Fund to the Sinking Fund Reserve to replace one of its surety policies.

- In addition to any remaining PFC Revenue Fund balance, the City has approximately $29.4 million of PFC Revenues available annually for use on pay-as-you-go (PayGo) projects. Alternatively, the City may pledge such PFCs for debt service or use such amounts as Designated PFC Revenues for Debt Service in accordance with the provisions of the General Ordinance. No PayGo PFCs are assumed beyond FY 2018 for the purpose of this analysis.
- Table A-3 in **Appendix A** of this Report includes the pledged PFC Revenues on the Series 2010D and 2011A Bonds and projected pledged PFC Revenues on the 2017 Bonds and future debt. The annual pledged PFC Revenues averages $31.4 million on the Series 2010D and 2011A Bonds. The Airport anticipates pledging additional PFC Revenues during the Projection Period, including $5 million in FY 2020 and $15 million annually thereafter for eligible Debt Service on the 2017 Bonds and future debt.
- Projected PFC Revenues, as shown on **Exhibit 5-5**, are expected to be sufficient to cover all pledged PFC Revenues for the payment of Debt Service at the current $4.50 per PFC-eligible enplanement. If PFC Revenues generated in a given year are insufficient to fully pay PFC-eligible Debt Service in that year, then the City will use existing PFC Revenues in the PFC Revenue Fund, if available, instead of Project Revenues to pay the shortfall.

Exhibit 5-5: Projected PFC Revenue

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCES: City of Philadelphia, Division of Aviation; AVK Consulting, Inc., based on the analysis and assumptions described in this Report, December 2017.
PREPARED BY: AVK Consulting, Inc., December 2017.

5.4.2 AVIATION OPERATING FUNDS AVAILABLE FOR DEBT SERVICE

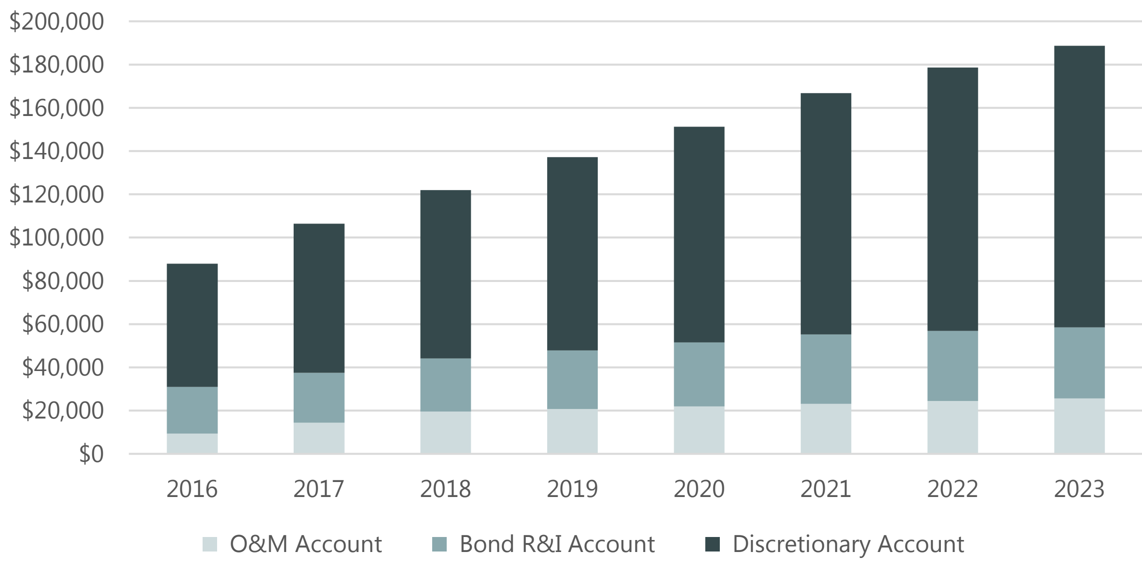
The General Ordinance and the Airline Agreement establish various fund deposits to be made into the O&M Account, the Bond R&I Account, and the Airport Discretionary Account annually. The annual deposit the O&M Account is $1,000,000 per year until the balance in the account is equal to 10 percent of Operating Expenses.

The deposit to the Bond R&I Account is equal to the incremental amount required to fund an amount not to exceed the lesser of (1) the amount of Debt Service Reserve Surety Bonds fulfilling the City's Sinking Fund Reserve requirements, or (2) 25 percent of annual Debt Service. The annual deposit to the Discretionary Account is equal to the City's share of net revenues generated in the OTA.

As part of the development of the FY 2015 Airline rates and charges, the City agreed to defer certain required fund deposits to the O&M Account and the Bond R&I Account, to contribute various O&M Account balances, and defer FY 2014 and FY 2015 supplemental pension obligations to reduce the Airline Revenues required, in exchange for a commitment from the Airlines to repay these deferrals and contributions from FY 2016 through FY 2018. **Exhibit 5-6** presents the actual and projected balances available in the Aviation Operating Fund for Debt Service. Balances are shown at the end of each Fiscal Year and represent the amounts available to meet the Rate Covenant in the subsequent Fiscal Year.

Exhibit 5-6: Projected Aviation Operating Funds Available for Debt Service

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCES: City of Philadelphia, Division of Aviation; AVK Consulting, Inc., based on the analysis and assumptions described in this Report, December 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

5.4.3 OTHER AMOUNTS

Grants or moneys received from private persons or public agencies, either federal, state, or local for the benefit of the Airport System deposited into the Sinking Fund to be used for Debt Services Requirements are also defined in the General Ordinance as Amounts Available for Debt Service. The projections in this Report assume that no such grants or moneys are received.

5.5 Debt Service Requirements

5.5.1 GENERAL AIRPORT REVENUE BOND DEBT SERVICE

Projected annual Debt Service Requirements, net of capitalized interest and interest earnings on Sinking Fund Reserves, on all current outstanding Bonds and projected future Bonds are discussed in this section. Projected Debt Service is provided in Table A-3 in Appendix A of this Report.

Outstanding Debt Service after the Issuance of the 2017 Bonds

Outstanding Debt Service totals approximately $109.6 in FY 2018. The majority of expected savings from the refunding portion of 2017 Bonds are assumed to be used to fund additional Sinking Fund Reserve requirements on outstanding Bonds. The remaining savings will result in an average annual decrease in Debt Service of $246,000. Outstanding Debt Service is projected to decrease after FY 2018 from approximately $109.6 million in FY 2018 to approximately $98.0 million in FY 2023.

2017 Bond Debt Service

As described in Chapter 2 of this Report, the 2017 Projects include portions of Runway 9R/27L extension and taxiway work and deicing improvements, terminal and concessions development, replacement of loading bridges, repair and replacement of terminal roofs and air handling units, other terminal systems improvements, terminal roadway safety improvements, demolition of facilities, and airfield lighting improvements at Northeast Airport. PFC Revenues and State and Federal grants, used on a PayGo basis, are anticipated to fund portions of the 2017 Projects.

The 2017 Bonds are assumed to have a term of 30 years, and for the purposes of this Report, interest on the 2017 Bonds is assumed at the current market interest rate as of November 2017 plus 50 basis points.

Total Debt Service Requirements on the 2017 Bonds are projected to be approximately $18.3 million in FY 2018 and then increase to approximately $31.8 million and approximately $36.9 million in FY 2019 and FY 2020, respectively, and then increase to approximately $54.2 million during the remainder of the Projection Period, based on the expected timing of project components being completed and the anticipated structure of the 2017 Bonds.

Debt Service Requirements on Future Airport Revenue Bonds

The financial analysis presented in this chapter includes Debt Service Requirements on future Bonds to be issued to fund the Airport's CDP described in Chapter 2 of this Report and includes future Bonds issued in 2020. As shown in Chapter 2 of this Report, proceeds from the assumed Series 2020 Bonds in the amount of approximately $389.4 million, along with other funds, are needed to fund the Airport's approved CDP during the Projection Period, as shown on **Table 5-3**. Debt Service Requirements on these Bonds are allocated to Cost Centers based on the type of capital projects funded, detailed in Chapter 2. Debt Service Requirements on these future Bonds is projected to be approximately $28.6 million in FY 2021 and then increasing to approximately $30.6 million in FY 2023.

Table 5-3: Assumed Future Bond Issuances

FUTURE BOND ISSUANCE	ASSUMED PROJECT FUNDING ($ MILLIONS)
Series 2020 Bonds	$384.9 million

SOURCE: City of Philadelphia, Division of Aviation, October 2017; Frasca & Associates, November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

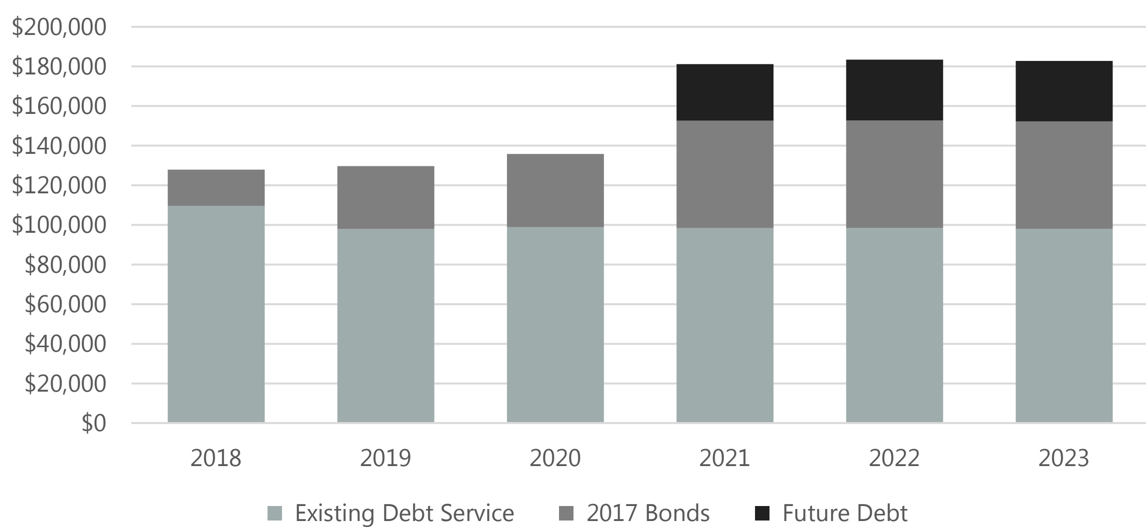
The future Bonds all assume 30-year bonds and an interest rate of 6.0 percent. Bond issuances associated with the CDP assume capitalized interest until individual project completion. The year and amounts assumed are also presented in Table 5-3.

Debt Service Requirements

Debt Service Requirements in the financial analysis reflect existing and future Debt Service, net of capitalized interest and interest earnings on Sinking Fund Reserves. As shown on **Exhibit 5-7**, Debt Service Requirements are budgeted to be approximately $127.9 million in FY 2018 and projected to increase to approximately $180.0 million in FY 2023 as project components funded with proceeds from the 2017 Bonds and future Bond issuances are completed.

Exhibit 5-7: Projected Net Debt Service

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCE: City of Philadelphia, Division of Aviation, October 2017; Frasca & Associates, December 2017.
PREPARED BY: AVK Consulting, Inc., December 2017.

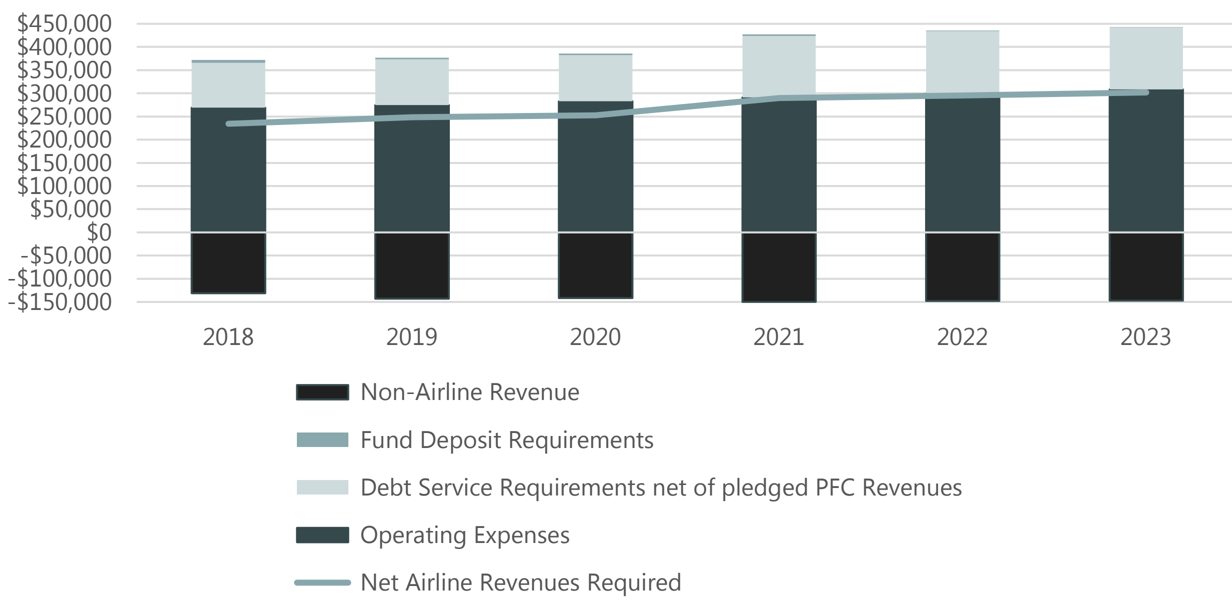
5.6 Net Airline Revenues Required

Through the General Ordinance and the Airline Agreement, the Airport enterprise fund has the ability to generate sufficient Project Revenues to pay Operating Expenses, Debt Service net of Pledged PFC Revenues and capitalized interest, and required annual fund deposits to the O&M Account and the Bond R&I Account.

The net Airline Revenues required represents the total amount that must be paid by the Airlines under the Airline Agreement, through Terminal Rentals, which include International Common Use Fees; Ramp Area Rentals; and Landing Fees. The net Airline Revenues required are projected to increase from approximately $234.4 million in FY 2018 to approximately $301.9 million in FY 2023, as shown in **Exhibit 5-8**.

Exhibit 5-8: Projected Net Signatory Airline Requirement

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCE: City of Philadelphia, Division of Aviation, November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

5.7 Calculation of Airline Rents and Fees

Under the Airline Agreement, the Terminal Area, the Ramp Area, the Airfield Area, Other Buildings and Areas, and Northeast Airport each generate rents and fees payable by the Airlines. The Airline Rents and Fees presented in this section for FY 2018 through FY 2022 reflect the rate-setting methodology in the Airline Agreement. The financial projections presented herein assume a continuation of the current residual rate-setting methodology in the Airline Agreement through FY 2023 (see Section 5.1.1 of this chapter).

Applicable non-Airline revenues (i.e., concessions, building and ground rentals, hangar and cargo rentals, utility sales, other landing and fuel flowage fees, and miscellaneous revenues), as well as the following costs, are allocated to each Cost Center to calculate applicable rates used to generate such rents and fees:

- **Operating Expenses.** Includes the direct and indirect Operating Expenses allocated to the Airline Cost Centers.
- **Net Debt Service.** Includes the portion of Debt Service allocable to the Airline Cost Centers, net of capitalized interest, pledged PFC Revenues, and interest earnings on the Sinking Fund Reserves.
- **Fund Deposit Requirements.** Includes the portions of the amount required to be deposited to the funds earlier described allocable to the Airline Cost Centers.

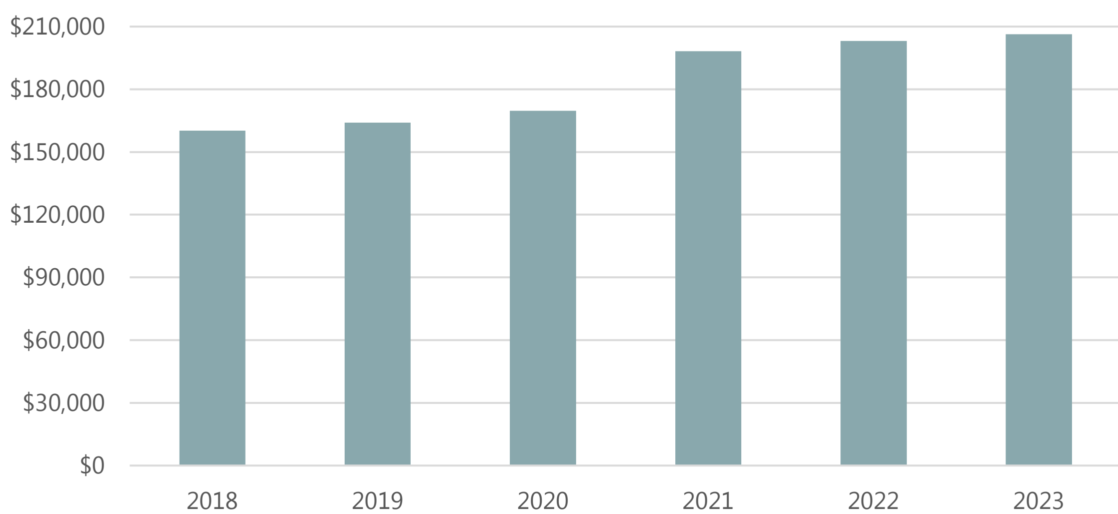
5.7.1 TERMINAL AREA

The sum of Operating Expenses, net Debt Service, and fund deposits allocable to the Terminal Area are offset by non-Airline revenues and any prior year carry-forwards allocable to the Terminal Area to derive the Terminal Area Requirement. The Terminal Area Requirement is divided by the weighted equivalent space Airline Space to establish Type 1 through 4 Terminal Area rental rates. Airlines are charged per square foot rentals for exclusive, preferential, and joint use areas. The cost of the space associated with the International Common Use areas of the Terminal Area, which is derived by multiplying the square footage of the International Common Use areas by the appropriate rate. This cost is then divided by the projected number of enplaning, deplaning, and Federal Inspection Services (FIS) deplaning passenger to establish the International Common Use Ticket Counter Area Fee, Enplaning Area Fee, and Deplaning Area Fee; and the FIS Area Fee.

Exhibit 5-9 presents the projected Terminal Area rentals at the Airport during the Projection Period.

Exhibit 5-9: Projected Terminal Area Rentals

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCE: City of Philadelphia, Division of Aviation, November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

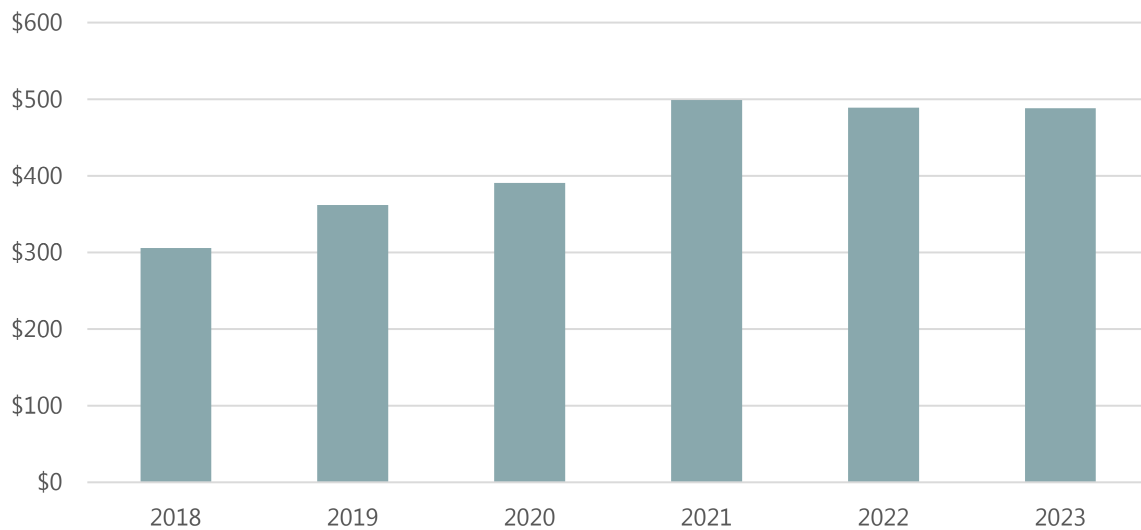
5.7.2 RAMP AREA

The sum of Operating Expenses, net Debt Service, and fund deposits allocable to the Ramp Area are offset by non-Airline revenues and any prior year carry-forwards allocable to the Ramp Area to derive the Ramp Area Requirement. The Ramp Area Requirement is divided by the leased linear footage of Ramp Area Premises. Airlines are charged per linear foot rentals preferential use areas. The cost of the Ramp Area associated with the International Common Ramp Area Premise is multiplied by the Ramp Area Premises Rate to determine the Ramp Area cost to be recovered equally through the International Common Use Enplaning and Deplaning Area Fees.

Exhibit 5-10 presents the projected Ramp Area rentals at the Airport during the Projection Period.

Exhibit 5-10: Projected Ramp Area Rentals

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCE: City of Philadelphia, Division of Aviation, November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

5.7.3 LANDING FEES

Landing Fees are calculated by determining the net cost each of the following Cost Centers:

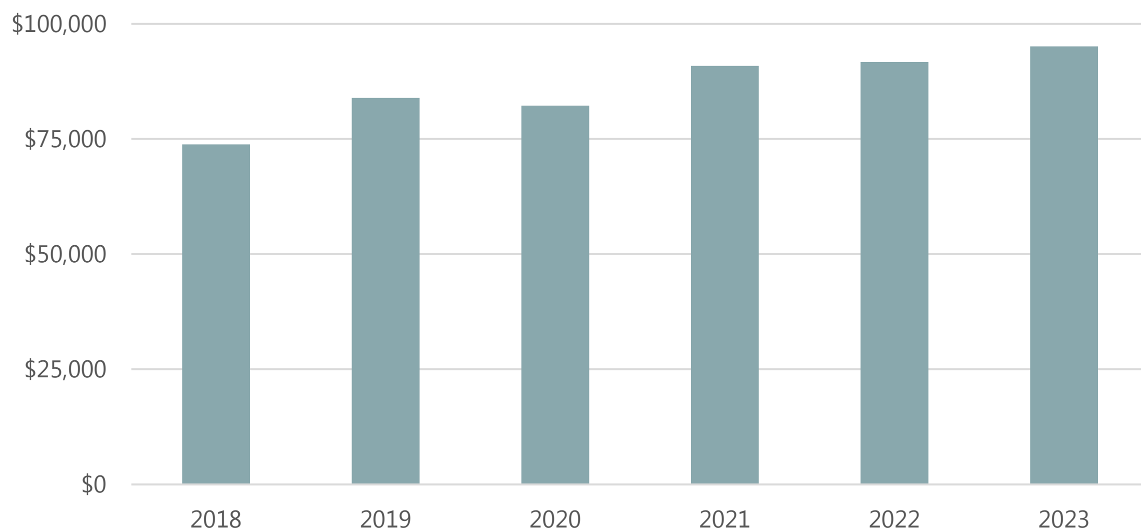
- **Airfield Area.** Includes the sum of Operating Expense, net Debt Service, and fund deposit requirements offset by non-Airline revenues allocable to the Airfield Area, including any non-Airline landing fees. This amount is to reflect any prior year carry forwards of Airline underpayments or overpayments.
- **Other Buildings and Areas.** Includes the sum of Operating Expense, net Debt Service, and fund deposit requirements offset by non-Airline revenues allocable to Other Buildings and Areas. This amount is additionally offset by any Airline Revenue Allocation from the prior year.
- **Northeast Philadelphia Airport.** Includes the sum of Operating Expense, net Debt Service, and fund deposit requirements offset by non-Airline revenues allocable to Northeast Philadelphia Airport.

The sum of the net requirement of these three Cost Centers establishes the Airfield Area Requirement. This requirement is divided by the Airline Landed Weight to derive the Signatory Landing Fee Rate.

Exhibit 5-11 presents the Projected Landing Fees at the Airport during the Projection Period.

Exhibit 5-11: Projected Landing Fees

(Dollars in Thousands for Fiscal Years Ending June 30)



SOURCE: City of Philadelphia, Division of Aviation, November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

5.8 Reasonableness of Airport Rentals, Fees, and Charges

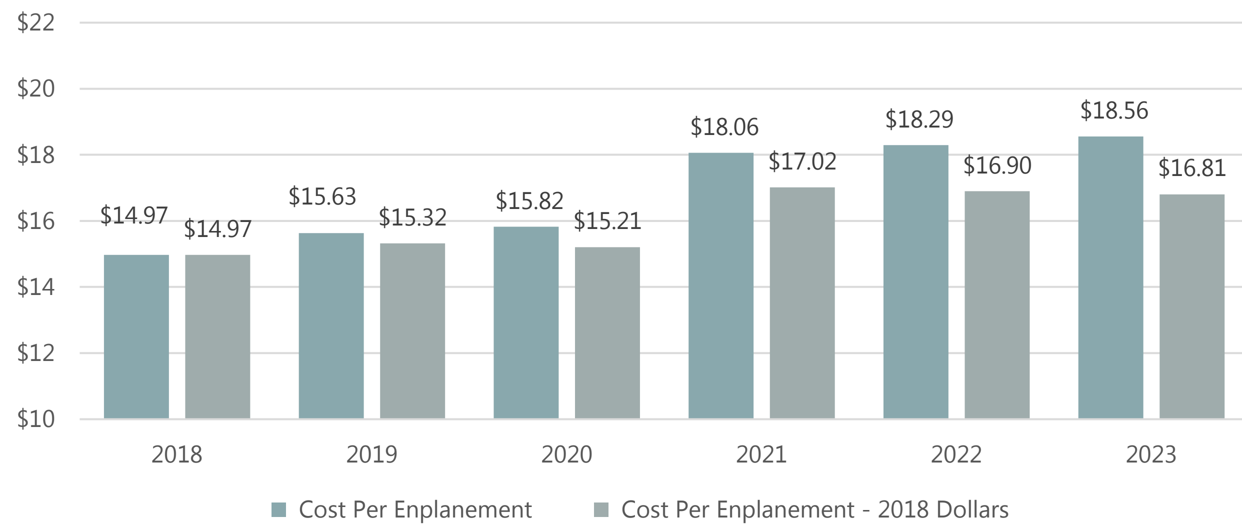
Table A-7 in Appendix A of this Report presents the airline revenue resulting from the previously described rent and fees. Consistent with the Airline Agreement, the net Airline Revenues required, shown on Table A-5 in the Appendix A of this Report, equals the total Airline Revenues on Table A-7.

5.8.1 AIRLINE COST

One approach to compare Airline costs or fees from airport to airport to calculate the Cost Per Enplanement (CPE), which is derived by dividing the Airline Revenues required enplaned passengers. **Exhibit 5-12** shows the projected Airline CPE at the Airport. As shown, the CPE is projected to increase from $14.97 in FY 2018 to $18.56 in FY 2023, which equates to $16.81 in 2018 dollars assuming 2 percent inflation. The CPE is projected to increase significantly in FY 2021, reflecting the incremental Debt Service attributable to the implementation of the CDP funded with the 2017 Bonds described in Chapter 2. The projected Airline Revenues are evaluated in this analysis to be reasonable based on the expectation that these revenues will not significantly deter forecasted demand for air traffic at the Airport.

Exhibit 5-12: Projected Airline Cost per Enplanement

(Fiscal Years Ending June 30)



SOURCE: City of Philadelphia, Division of Aviation, November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

5.9 Debt Service Coverage

Table A-9 and Table A-10 in Appendix A of this Report present the application of Project Revenues and Debt Service coverage ratios project for FY 2018 through FY 2023, respectively. As contained in the General Ordinance:

> The City covenants.... [that it will] impose, charge and recognize revenues in each Fiscal Year such rentals, charges, and fees as shall, together with that portion of Aviation Operating Fund balance attributable to Amounts Available for Debt Service and carried forward at the beginning of such Fiscal Year and together will all other Amounts Available for Debt Service to be received in such Fiscal Year, equal to not less than the greater of:
>
> (1) The sum of:
> - (i) all Net Operating Expenses payable during such Fiscal Year;
> - (ii) 150% of the amount required to pay the Debt Service Requirements during such Fiscal Year;
> - (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such Fiscal Year; and
> - (iv) the amount, if any, required to be paid into the Renewal Fund during such Fiscal Year;, or

(2) the sum of:

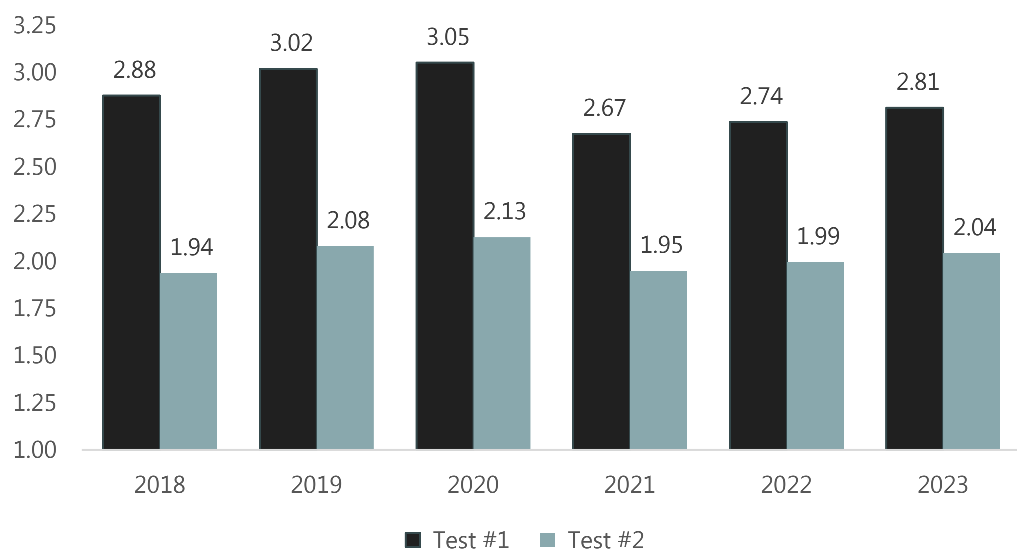
(i) all Operating Expenses payable during such Fiscal Year; and

(ii) (A) all Debt Service Requirements during such Fiscal Year; (B) all debt service requirements during such Fiscal Year in respect of all outstanding General Obligation Bonds and NSS General Obligation Bonds issued for improvements to the Airport System; (C) all debt service requirements during such Fiscal Year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service; (D) all amounts required to repay loans among funds made pursuant to Section 4.05(c); (E) the amount, if any, required to be paid into the Sinking Fund Reserve Account or Renewal Fund during such Fiscal Year; and (F) all amounts required to be paid under Exchange Agreements.

Pledged Amounts Available for Debt Service include Project Revenues, pledged PFC Revenues, that portion of the Aviation Operating Fund balance comprised of the balances in the Bond R&I Account, the O&M Account, and the Discretionary Account. As described in Section 5.4.1, PFC Revenues are currently pledged in an amount up to 75 percent of the total Debt Service on the Series 2010D and Series 2011A. The Airport intends to pledge additional PFC Revenues of $5 million in FY 2020 and $15 million each year thereafter for PFC-eligible Debt Service on the Series 2017 Bonds and future bonds. As shown in on **Exhibit 5-13** below and on Table A-10, the Debt Service coverage ratio is projected to meet the minimum requirements of 1.50x and 1.00x for Rate Covenant tests #1 and #2 in each year of the projection period.

Exhibit 5-13: Projected Debt Service Coverage

(For Fiscal Years Ending June 30)



SOURCES: City of Philadelphia, Division of Aviation; AVK Consulting, Inc., based on the analysis and assumptions described in this Report, December 2017.

PREPARED BY: AVK Consulting, Inc., December 2017.

5.10 Assumptions Underlying the Financial Projections

The techniques and methodologies used in preparing this financial analysis are consistent with industry practices for similar studies in connection with airport revenue bond sales. While the Consultants believe that the approach and assumptions used are reasonable, some assumptions regarding future trends and events presented in this Report, including, but not limited to, the implementation schedule and enplanement projections, may not materialize. Achievement of the projections presented in this Report, therefore, is dependent upon the occurrence of future events, which cannot be assured, and the variations may be material.

Appendix A

Financial Projection Tables

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Table A-1: Operating Expenses

For Fiscal Year Ending June 30

	ACTUAL 1/	BUDGET 2/	PROJECTED 3/					COMPOUNDED ANNUAL
	2017	2018	2019	2020	2021	2022	2023	GROWTH RATE (2018 - 2023)
Net Operating Expenses								
Personal services	$ 45,986,187	$ 48,153,000	$ 50,079,000	$ 52,082,000	$ 54,165,000	$ 56,332,000	$ 58,585,000	4.0%
Contractual services	79,145,397	87,966,000	89,945,000	91,744,000	93,579,000	95,451,000	97,360,000	2.1%
Materials and supplies	4,450,154	6,000,000	6,120,000	6,242,000	6,367,000	6,494,000	6,624,000	2.0%
Equipment	3,404,267	2,928,000	2,987,000	3,047,000	3,108,000	3,170,000	3,233,000	2.0%
Taxes	3,591,435	3,700,000	3,725,000	3,750,000	3,775,000	3,800,000	3,825,000	0.7%
Payment to Renewal Fund	250,000	-	-	-	-	-	-	0.0%
	$ 136,747,633	$ 148,747,000	$ 152,856,000	$ 156,865,000	$ 160,994,000	$ 165,247,000	$ 169,627,000	2.7%
Interdepartmental Charges								
Police	$ 16,286,393	$ 16,472,000	$ 17,049,000	$ 17,646,000	$ 18,264,000	$ 18,903,000	$ 19,565,000	3.5%
Fire	6,802,003	7,949,000	8,227,000	8,515,000	8,813,000	9,121,000	9,440,000	3.5%
Utilities	17,749,141	19,161,000	19,736,000	20,328,000	20,938,000	21,566,000	22,213,000	3.0%
Insurance	2,576,851	2,903,000	2,947,000	2,991,000	3,036,000	3,082,000	3,128,000	1.5%
Services of others	2,253,299	2,700,000	2,795,000	2,893,000	2,994,000	3,099,000	3,207,000	3.5%
Legal services	1,557,328	1,575,000	1,630,000	1,687,000	1,746,000	1,807,000	1,870,000	3.5%
Fringe benefits	59,545,462	61,425,000	62,194,000	64,371,000	66,624,000	68,956,000	71,369,000	3.0%
Fleet Management	2,985,120	3,574,000	3,699,000	3,828,000	3,962,000	4,101,000	4,245,000	3.5%
Vehicle Purchases	5,392,000	2,991,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	-7.7%
Indeminities	1,605,551	1,500,000	1,525,000	1,550,000	1,575,000	1,600,000	1,625,000	1.6%
	$ 116,753,148	$ 120,250,000	$ 121,802,000	$ 125,809,000	$ 129,952,000	$ 134,235,000	$ 138,662,000	2.9%
Operating Expenses	**$253,500,781**	**$268,997,000**	**$274,658,000**	**$282,674,000**	**$290,946,000**	**$299,482,000**	**$308,289,000**	2.8%
Percent Annual Increase		6.1%	2.1%	2.9%	2.9%	2.9%	2.9%	
Allocation by Project Cost Centers								
Terminal Area	$ 148,750,401	$ 160,526,000	$ 163,475,000	$ 168,345,000	$ 172,951,000	$ 178,214,000	$ 183,908,000	
Ramp Area	-	-	-	-	-	-	-	
Airfield Area	45,456,651	44,867,000	45,534,000	46,900,000	48,257,000	49,727,000	51,234,000	
Other Buildings and Areas	16,120,795	17,262,000	17,591,000	18,165,000	18,622,000	19,242,000	19,888,000	
Northeast Philadelphia Airport	6,385,958	6,640,000	6,716,000	6,941,000	7,141,000	7,378,000	7,622,000	
Outside Terminal Area	36,740,342	39,702,000	41,342,000	42,323,000	43,975,000	44,921,000	45,637,000	
Airport Services	46,634	-	-	-	-	-	-	
	$253,500,781	**$268,997,000**	**$274,658,000**	**$282,674,000**	**$290,946,000**	**$299,482,000**	**$308,289,000**	

NOTES:

1/ City of Philadelphia records.
2/ City 2018 Final Rate and Charges Budget.
3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.

SOURCES: City of Philadelphia, Division of Aviation, (FY 2017-FY 2018); AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-2: Project Revenues

For Fiscal Year Ending June 30

	ACTUAL [1/] 2017	BUDGET [2/] 2018	PROJECTED [3/] 2019	2020	2021	2022	2023
Project Revenues							
Airline Revenues [4/]							
Terminal Area rentals	$ 147,146,585	$ 165,704,000	$ 164,105,000	$ 169,647,000	$ 198,276,000	$ 203,134,000	$ 206,271,000
Ramp Area rentals	571,779	492,000	362,000	391,000	499,000	489,000	488,000
Landing fees [5/]	80,456,805	81,569,000	83,949,000	86,211,000	93,616,000	95,831,000	97,546,000
	$ 228,175,169	$ 247,765,000	$ 248,416,000	$ 256,249,000	$ 292,391,000	$ 299,454,000	$ 304,305,000
Non-Airline revenues							
Concessions							
Automobile Parking	$ 32,555,675	$ 30,844,000	$ 39,016,000	$ 37,384,000	$ 43,048,000	$ 40,482,000	$ 36,833,000
Rental Car	19,037,003	18,568,000	19,583,000	19,158,000	18,764,000	18,342,000	17,890,000
Restaurants and Retail	29,845,283	29,325,000	32,272,000	32,401,000	34,488,000	34,717,000	36,839,000
Ground Transportation	6,851,100	6,649,000	7,620,000	7,890,000	8,141,000	8,395,000	8,923,000
Other Concessions	10,299,337	10,669,000	10,356,000	10,446,000	10,575,000	10,709,000	10,843,000
	$ 98,588,398	$ 96,055,000	$ 108,847,000	$ 107,279,000	$ 115,016,000	$ 112,645,000	$ 111,328,000
Other Non-Airline Revenues							
Building and Ground Rentals [6/]	$ 19,294,945	$ 18,385,000	$ 18,108,000	$ 18,198,000	$ 18,307,000	$ 18,409,000	$ 18,611,000
Hangar and Cargo Rentals	2,312,400	2,485,000	2,577,000	2,599,000	2,624,000	2,655,000	2,689,000
Sales of Utilities	2,871,318	3,271,000	3,965,000	4,038,000	4,111,000	4,171,000	4,233,000
Other Landing and Fuel Flowage Fees	2,582,501	2,463,000	2,439,000	2,458,000	2,471,000	2,483,000	2,502,000
Miscellaneous	8,240,363	8,566,000	7,104,000	7,201,000	7,285,000	7,365,000	7,445,000
Total Non-Airline Revenues	$ 133,889,925	$ 131,225,000	$ 143,040,000	$ 141,773,000	$ 149,814,000	$ 147,728,000	$ 146,808,000
Total Project Revenues	**$362,065,094**	**$378,990,000**	**$391,456,000**	**$398,022,000**	**$442,205,000**	**$447,182,000**	**$451,113,000**

NOTES:

1/ City of Philadelphia records.
2/ City 2018 Final Rate and Charges Budget.
3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
4/ Includes Airline Revenues carried forward from prior years and excludes Airline Revenues to be credited to subsequent year.
5/ Includes Airlines' share of OTA net revenue from prior year.
6/ Includes International Plaza revenues net of payments made to pay down commercial paper notes.

SOURCES: City of Philadelphia, Division of Aviation, (FY 2017-FY 2018); AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-3: Annual Debt Service Requirements

For Fiscal Year Ending June 30

	ACTUAL [1/]	BUDGET [2/]	PROJECTED [3/]				
	2017	2018	2019	2020	2021	2022	2023
Debt Service Requirements							
Outstanding Bonds and Short-Term Borrowing							
Series 1998B [4/]	$ 256	$ 5,000	$ -	$ -	$ -	$ -	$ -
Series 2005A	-	-	-	-	-	-	-
Series 2005C	15,816,254	16,382,000	16,378,000	16,313,000	16,298,000	16,264,000	16,229,000
Series 2007A	11,780,500	3,764,000	-	-	-	-	-
Series 2007B	6,933,000	1,203,000	-	-	-	-	-
Series 2009A	3,745,704	855,000	-	-	-	-	-
Series 2010A	18,668,963	18,666,000	18,668,000	18,666,000	18,668,000	18,670,000	18,670,000
Series 2010B	-	-	-	-	-	-	-
Series 2010C	9,448,250	9,446,000	-	-	-	-	-
Series 2010D	26,404,200	26,392,000	26,391,000	26,387,000	26,391,000	26,392,000	26,389,000
Series 2011A	15,340,656	15,356,000	15,344,000	15,364,000	15,388,000	15,401,000	15,412,000
Series 2011B	2,594,019	2,590,000	2,588,000	2,592,000	2,590,000	2,593,000	2,590,000
Series 2015A	7,668,550	7,663,000	7,668,000	7,668,000	7,665,000	7,664,000	7,668,000
Direct Purchase Taxable Loan [5/]	167,742	5,231,000	5,754,000	5,779,000	5,807,000	5,837,000	5,869,000
LOC Fees and other CP expense and fees	4,028,239	2,038,000	5,180,000	6,183,000	5,529,000	5,771,000	5,206,000
	$ 122,596,333	$ 109,591,000	$ 97,971,000	$ 98,952,000	$ 98,336,000	$ 98,592,000	$ 98,033,000
Proposed Debt [6/]							
Series 2017A	$ -	$ 5,246,000	$ 9,714,000	$ 10,880,000	$ 11,007,000	$ 11,003,000	$ 11,008,000
Series 2017B	-	13,025,000	22,095,000	25,991,000	43,220,000	43,215,000	43,222,000
	$ -	$ 18,271,000	$ 31,809,000	$ 36,871,000	$ 54,227,000	$ 54,218,000	$ 54,230,000
Future debt [7/]	-	-	-	-	28,562,000	30,610,000	30,611,000
	$ -	$ 18,271,000	$ 31,809,000	$ 36,871,000	$ 82,789,000	$ 84,828,000	$ 84,841,000
Less: Interest Income [8/]	-	-	-	-	(2,162,000)	(2,512,000)	(2,825,000)
Debt Service Requirements	**$ 122,596,333**	**$ 127,862,000**	**$ 129,780,000**	**$ 135,823,000**	**$ 178,963,000**	**$ 180,908,000**	**$ 180,049,000**
Less: Existing Pledged PFC Revenues [9/]	(33,692,950)	(31,202,000)	(31,189,000)	(31,200,000)	(31,218,000)	(31,231,000)	(31,237,000)
Less: Future Pledged PFC Revenues [10/]				(5,000,000)	(15,000,000)	(15,000,000)	(15,000,000)
Debt Service Requirements net of pledged PFC Revenues	**$ 88,903,383**	**$ 96,660,000**	**$ 98,591,000**	**$ 99,623,000**	**$ 132,745,000**	**$ 134,677,000**	**$ 133,812,000**

NOTES:

1/ City of Philadelphia records.
2/ City 2018 Final Rate and Charges Budget.
3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
4/ On July 21, 2017, the City redeemed the remaining outstanding principal on the Series 1998B Bonds.
5/ Assumes that the Airport renews the current direct loan with either commercial paper or another direct loan.
6/ Represents the projected Debt Service on bonds to be issued to fund the CDP and to refund the Series 2007A, Series 2007B, and Series 2009A Bonds.
7/ Represents Debt Service on the additional bonds to be issued to fund the CDP during the Projection Period.
8/ Represents excess cash balances in the Sinking Fund Reserves available to pay Debt Service.
9/ Represents pledged PFC Revenues for eligible Debt Service on the Series 2010D and the Series 2011A Bonds.
10/ Represents the projected pledged PFC Revenues on the Series 2017 Bonds and future debt.

SOURCES: City of Philadelphia, Division of Aviation; Frasca & Associates, November 2017.
PREPARED BY: AVK Consulting, Inc., December 2017.

Table A-4: Fund Deposit Requirements

For Fiscal Year Ending June 30

	ACTUAL [1/]	BUDGET [2/]	PROJECTED [3/]				
	2017	2018	2019	2020	2021	2022	2023
Fund Deposit Requirements							
O&M Account	$5,000,000	$5,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Bond R&I Account	2,499,734	1,233,000	2,237,000	2,237,000	2,237,000	130,000	-
TOTAL FUND DEPOSIT REQUIREMENTS	$7,499,734	$6,233,000	$3,237,000	$3,237,000	$3,237,000	$1,130,000	$1,000,000
Fund Deposit Requirements by Cost Center							
Terminal Area	$4,408,563	$3,538,000	$2,060,000	$2,059,000	$2,130,000	$684,000	$596,000
Ramp Area	13,811	6,000	8,000	9,000	8,000	-	-
Airfield Area	2,601,859	2,258,000	729,000	726,000	657,000	195,000	166,000
Other Buildings and Areas	153,364	127,000	233,000	236,000	208,000	72,000	65,000
PNE	47,467	43,000	29,000	30,000	39,000	26,000	25,000
Outside Terminal Area	274,670	261,000	178,000	177,000	195,000	153,000	148,000
	$7,499,734	**$6,233,000**	**$3,237,000**	**$3,237,000**	**$3,237,000**	**$1,130,000**	**$1,000,000**

NOTES:

1/ City of Philadelphia records.
2/ City 2018 Final Rate and Charges Budget.
3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.

SOURCES: City of Philadelphia, Division of Aviation (FY 2017-FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-5: Net Airline Revenues Required

For Fiscal Year Ending June 30

	BUDGET [1/]	PROJECTED [2/]				
	2018	2019	2020	2021	2022	2023
Operating Expenses	$268,997,000	$274,658,000	$282,674,000	$290,946,000	$299,482,000	$308,289,000
Debt Service Requirements net of pledged PFC Revenues	96,660,000	98,591,000	99,623,000	132,745,000	134,677,000	133,812,000
Fund Deposit Requirements	6,233,000	3,237,000	3,237,000	3,237,000	1,130,000	1,000,000
Total Expenses, Net Debt Service, and Fund Deposits	$371,890,000	$376,486,000	$385,534,000	$426,928,000	$435,289,000	$443,101,000
Less:						
Non-Airline Revenue	$131,225,000	$143,040,000	$141,773,000	$149,814,000	$147,728,000	$146,808,000
Airline Revenue Allocation [3/]	1,250,000	50,000	3,985,000	2,744,000	4,138,000	2,447,000
OTA net revenues	(7,100,000)	(14,970,000)	(12,488,000)	(15,277,000)	(11,893,000)	(8,012,000)
Prior year carry-forwards	12,154,000	-	-	-	-	-
	$137,529,000	$128,120,000	$133,270,000	$137,281,000	$139,973,000	$141,243,000
Net Airline Revenues Required [4/]	**$234,361,000**	**$248,366,000**	**$252,264,000**	**$289,647,000**	**$295,316,000**	**$301,858,000**

NOTES:

1/ City 2018 Final Rate and Charges Budget.
2/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
3/ Represents Airlines' share of prior fiscal year OTA net revenues.
4/ Shown net of Airline Revenues carried forward and Airline Revenue Allocation available from prior year.

SOURCES: City of Philadelphia, Division of Aviation (FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-6: Airline Rents and Fees

For Fiscal Year Ending June 30

	BUDGET [1/]	PROJECTED [2/]				
	2018	2019	2020	2021	2022	2023
Terminal Area Rental Rates [3/]						
Signatory Rental Rates						
Type 1	$232.51	$238.03	$246.07	$287.59	$294.64	$299.19
Type 2	174.38	178.52	184.55	215.69	220.98	224.39
Type 3	116.25	119.01	123.03	143.80	147.32	149.59
Type 4	58.13	59.51	61.52	71.90	73.66	74.80
Non-Signatory Rental Rates						
Type 1	$267.38	$273.73	$282.98	$330.73	$338.83	$344.07
Type 2	200.54	205.30	212.23	248.05	254.13	258.05
Type 3	133.69	136.87	141.49	165.37	169.42	172.03
Type 4	66.85	68.43	70.74	82.68	84.71	86.02
Ramp Area Premise Rate [4/]	$16.30	$19.31	$20.86	$26.62	$26.09	$26.04
Landing Fee Rate [5/]						
Signatory Landing Fee Rate	$3.81	$4.03	$3.94	$4.33	$4.35	$4.48
Non-Signatory Landing Fee Rate	4.38	4.63	4.53	4.98	5.00	5.16

NOTES:

1/ City 2018 Final Rate and Charges Budget.
2/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
3/ Per square foot.
4/ Per linear foot.
5/ Per thousand pound unit.

SOURCES: City of Philadelphia, Division of Aviation (FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-7: Airline Revenues

For Fiscal Year Ending June 30

	BUDGET 1/	PROJECTED 2/				
	2018	2019	2020	2021	2022	2023
Terminal Area Rentals and International Common Use Charges						
Terminal Area Rentals	$125,247,000	$127,769,000	$132,080,000	$154,365,000	$158,144,000	$160,583,000
International Common Use Charges	34,935,000	36,336,000	37,567,000	43,911,000	44,990,000	45,688,000
	$160,182,000	$164,105,000	$169,647,000	$198,276,000	$203,134,000	$206,271,000
Ramp Area Rentals	306,000	362,000	391,000	499,000	489,000	488,000
Landing Fee Revenue	73,873,000	83,899,000	82,226,000	90,872,000	91,693,000	95,099,000
TOTAL SIGNATORY AIRLINE REVENUE 3/	**$234,361,000**	**$248,366,000**	**$252,264,000**	**$289,647,000**	**$295,316,000**	**$301,858,000**

NOTES:

1/ City 2018 Final Rate and Charges Budget.
2/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
3/ Shown net of Airline Revenues carried forward and Airline Revenue Allocation available from prior year.

SOURCES: City of Philadelphia, Division of Aviation (FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-8: Airline Cost Per Enplanement

For Fiscal Year Ending June 30

	BUDGET 1/	PROJECTED 2/				
	2018	2019	2020	2021	2022	2023
Net Airline Revenues Required	$234,361,000	$248,366,000	$252,264,000	$289,647,000	$295,316,000	$301,858,000
Less: Projected Cargo Landing Fees	(7,815,000)	(8,302,000)	(8,249,000)	(9,245,000)	(9,445,000)	(9,903,000)
Passenger Airline Revenues	$226,546,000	$240,064,000	$244,015,000	$280,402,000	$285,871,000	$291,955,000
Projected Enplaned Passengers 3/	15,129,000	15,361,000	15,422,000	15,526,000	15,630,000	15,733,000
Passenger Airline Cost per Enplaned Passenger						
Current Dollars	$14.97	$15.63	$15.82	$18.06	$18.29	$18.56
2018 Dollars 3/	$14.97	$15.32	$15.21	$17.02	$16.90	$16.81

NOTES:

1/ City 2018 Final Rate and Charges Budget.
2/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
3/ Enplaned passengers shown for FY 2018 reflect the projected enplaned passengers used in the final airline rates and charges budget.
4/ Inflation rate assumed at 2.0 percent.

SOURCES: City of Philadelphia, Division of Aviation (FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-9: Application of Project Revenues

For Fiscal Year Ending June 30

	ACTUAL [1/]	BUDGET [2/]	PROJECTED [3/]				
	2017	2018	2019	2020	2021	2022	2023
Project Revenues							
Airline Revenues [4/]	$228,175,169	$247,765,000	$248,416,000	$256,249,000	$292,391,000	$299,454,000	$304,305,000
Non-Airline Revenues	133,889,925	131,225,000	143,040,000	141,773,000	149,814,000	147,728,000	146,808,000
TOTAL PROJECT REVENUES	$362,065,094	$378,990,000	$391,456,000	$398,022,000	$442,205,000	$447,182,000	$451,113,000
Application of Project Revenues							
Net Operating Expenses	$136,747,633	$148,747,000	$152,856,000	$156,865,000	$160,994,000	$165,247,000	$169,627,000
Sinking Fund [5/]	88,903,383	96,660,000	98,591,000	99,623,000	132,745,000	134,677,000	133,812,000
Interdepartmental Charges	116,753,148	120,250,000	121,802,000	125,809,000	129,952,000	134,235,000	138,662,000
Bond R&I Account	2,499,734	1,233,000	2,237,000	2,237,000	2,237,000	130,000	-
O&M Account	5,000,000	5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Airline Revenue Allocation	2,580,598	50,000	3,985,000	2,744,000	4,138,000	2,447,000	505,000
Deposit to Airport Discretionary Account	9,580,598	7,050,000	10,985,000	9,744,000	11,139,000	9,446,000	7,507,000
	$362,065,094	**$378,990,000**	**$391,456,000**	**$398,022,000**	**$442,205,000**	**$447,182,000**	**$451,113,000**

NOTES:

1/ City of Philadelphia records.
2/ City 2018 Final Rate and Charges Budget.
3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
4/ Includes Airline Revenues carried forward and Airline Revenue Allocation available from prior year.
5/ Sinking Fund shown net of existing and projected Pledged PFC Revenues.

SOURCES: City of Philadelphia, Division of Aviation (FY 2017-FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), November 2017.
PREPARED BY: AVK Consulting, Inc., November 2017.

Table A-10: Debt Service Coverage

For Fiscal Year Ending June 30

		ACTUAL 1/	BUDGET 2/	PROJECTED 3/				
		2017	2018	2019	2020	2021	2022	2023
Pledged Amounts Available for Debt Service								
Airline Revenues 4/		$228,175,169	$247,765,000	$248,416,000	$256,249,000	$292,391,000	$299,454,000	$304,305,000
Non-Airline Revenues		133,889,925	131,225,000	143,040,000	141,773,000	149,814,000	147,728,000	146,808,000
Existing Pledged PFC Revenues 5/		33,692,950	31,202,000	31,189,000	31,200,000	31,218,000	31,231,000	31,237,000
Future Pledged PFC Revenues 6/		-	-	-	5,000,000	15,000,000	15,000,000	15,000,000
Other amounts available for Debt Service 7/		87,875,140	106,442,000	121,914,000	137,119,000	151,198,000	166,782,000	178,690,000
TOTAL AMOUNTS AVAILABLE FOR DEBT SERVICE	[A]	$483,633,184	$516,634,000	$544,559,000	$571,341,000	$639,621,000	$660,195,000	$676,040,000
Operating Expenses								
Net Operating Expenses	[B]	$136,747,633	$148,747,000	$152,856,000	$156,865,000	$160,994,000	$165,247,000	$169,627,000
Interdepartmental Charges		116,753,148	120,250,000	121,802,000	125,809,000	129,952,000	134,235,000	138,662,000
	[C]	$253,500,781	$268,997,000	$274,658,000	$282,674,000	$290,946,000	$299,482,000	$308,289,000
Funds available for Revenue Bond debt service coverage								
Test 1	[A - B = D]	$346,885,551	$367,887,000	$391,703,000	$414,476,000	$478,627,000	$494,948,000	$506,413,000
Test 2	[A - C = E]	230,132,403	247,637,000	269,901,000	288,667,000	348,675,000	360,713,000	367,751,000
Debt Service Requirements	[F]	122,596,333	127,862,000	129,780,000	135,823,000	178,963,000	180,908,000	180,049,000
Revenue Bond debt service coverage								
Test 1	[D ÷ F]	2.83	2.88	3.02	3.05	2.67	2.74	2.81
Coverage requirement		1.50	1.50	1.50	1.50	1.50	1.50	1.50
Test 2	[E ÷ F]	1.88	1.94	2.08	2.13	1.95	1.99	2.04
Coverage requirement		1.00	1.00	1.00	1.00	1.00	1.00	1.00

NOTES:

1/ City of Philadelphia records.
2/ City 2018 Final Rate and Charges Budget.
3/ The current Airport-Airline Use and Lease Agreement expires on June 30, 2020 with two one-year renewals. For the purpose of this analysis, the financial projections presented herein assume a continuation of the current rate-making methodology thorugh FY 2023.
4/ Includes required revenue for Terminal Area rentals, International and Common Use Fees, Ramp Area rentals, Airline Landing Fees, and any Airline Revenue Allocation or prior-year carry forwards.
5/ Represents pledged PFC Revenues for eligible Debt Service on the Series 2010D and the Series 2011A Bonds.
6/ Represents the projected pledged PFC Revenues on the Series 2017 Bonds and future debt.
7/ Per Section 5.01(a) of the General Ordinance, that portion of Aviation Operating Fund balance available for use as Amounts Available for Debt Service.

SOURCES: City of Philadelphia, Division of Aviation (FY 2017-FY 2018), October 2017; AVK Consulting, Inc. (FY 2019-FY 2023), December 2017.
PREPARED BY: AVK Consulting, Inc., December 2017.

APPENDIX II

FINANCIAL STATEMENTS OF THE DIVISION OF AVIATION

FISCAL YEAR ENDED JUNE 30, 2016

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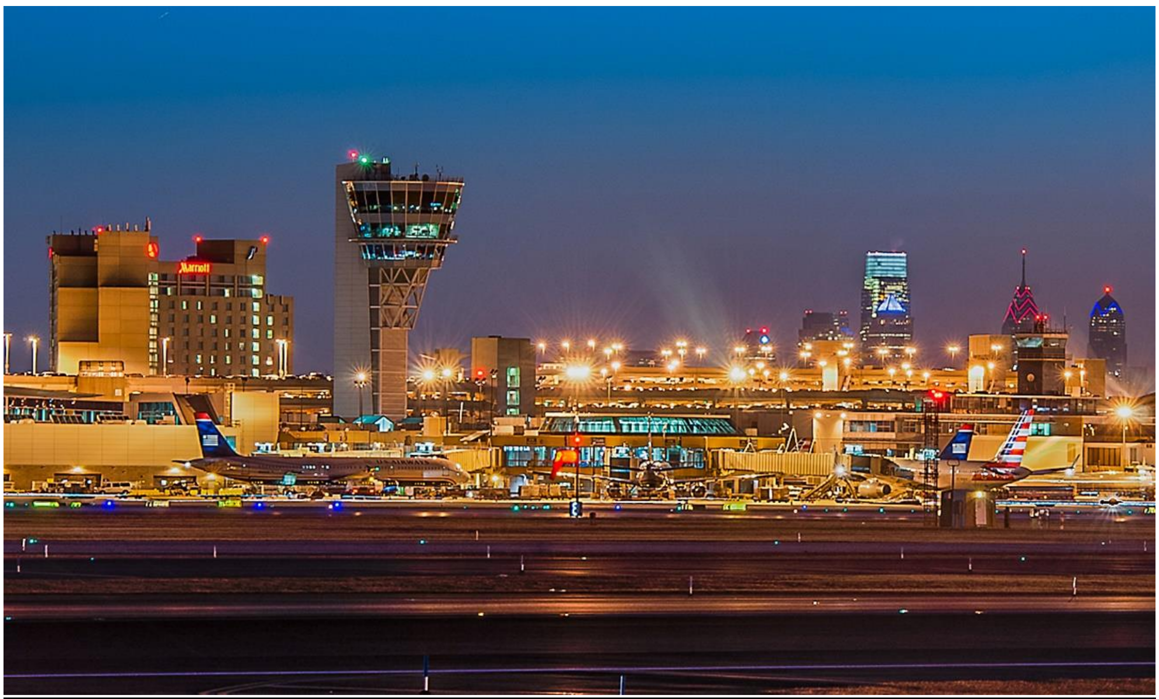
PHL PHILADELPHIA INTERNATIONAL AIRPORT



CITY OF PHILADELPHIA
Philadelphia Airport System

Municipal Securities Disclosure
Annual Financial Information
Fiscal Year Ended June 30, 2016

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PHL PHILADELPHIA INTERNATIONAL AIRPORT

Municipal Securities Disclosure Report
Annual Financial Report
For the Fiscal Year Ended June 30, 2016

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PHL PHILADELPHIA INTERNATIONAL AIRPORT

Disclosure Requirements
Fiscal Year Ended June 30, 2016

This report has been prepared pursuant to certain provisions of the following Continuing Disclosure Agreements, collectively referred to as the "Disclosure Agreements":

- Continuing Disclosure Agreements dated July 23, 1998 between the Philadelphia Authority for Industrial Development and the City of Philadelphia, Pennsylvania

- Continuing Disclosure Agreements dated August 4, 2005, August 1, 2007, April 14, 2009, November 15, 2010, December 1, 2011, and September 1, 2015 between the City of Philadelphia, Pennsylvania and Digital Assurance Certification, L.L.C.

This report contains financial information and operating data which, together with the City of Philadelphia's Comprehensive Annual Financial Report ("CAFR"), constitute the "Annual Financial Information" as defined in the Disclosure Agreements.

In accordance with Section 3 of the Disclosure Agreements, the enclosed tables and financial information are substantially similar to the type set forth in the Official Statements for the Philadelphia Authority for Industrial Development Airport Revenue Bonds, Series 1998A and the City of Philadelphia, Pennsylvania Airport Revenue Bonds, Series, 2005C, 2007A/B, 2009A, 2010A/B/C/D, 2011A/B, and 2015A.

Table 1

City of Philadelphia Aviation Division
Philadelphia International Airport (PHL)
Recent Trends in Enplaned Passengers
Fiscal Years 2014 - 2016

Airlines	Fiscal Year 2014	Fiscal Year 2015	Percentage Change	Fiscal Year 2016	Percentage Change
Domestic					
Scheduled Major / National					
American	5,426,768	5,231,760	(3.6)%	5,890,212	12.6%
Other	3,357,499	3,490,560	4.0%	3,618,428	3.7%
	8,784,267	8,722,320	(0.7)%	9,508,640	9.0%
Scheduled Regional / Commuter	4,274,934	4,349,988	1.8%	3,975,528	(8.6)%
Charter	603	266	(55.9)%	85	(68.0)%
Subtotal - Domestic	**13,059,804**	**13,072,574**	**0.1%**	**13,484,253**	**3.1%**
International					
Scheduled Major / National	1,930,945	1,928,433	(0.1)%	1,911,233	(0.9)%
Scheduled Regional / Commuter	321,400	311,002	(3.2)%	285,252	(8.3)%
Charter	3,904	729	(81.3)%	2,820	286.8%
Subtotal - International	**2,256,249**	**2,240,164**	**(0.7)%**	**2,199,305**	**(1.8)%**
Total Enplaned Passengers	**15,316,053**	**15,312,738**	**(0.0)%**	**15,683,558**	**2.4%**

Note: The City's fiscal year ends June 30th.

Table 2

City of Philadelphia Aviation Division
Philadelphia International Airport (PHL)
Airline Market Shares of Enplaned Passengers
Fiscal Year 2016

Airlines	Enplaned Passengers	Percent of Total
Domestic		
Scheduled Major / National		
American Airlines	5,890,212	37.6%
Southwest Airlines	1,133,501	7.2%
Delta Air Lines	973,307	6.2%
United Airlines	549,849	3.5%
Frontier Airlines	473,972	3.0%
Spirit Airlines	245,438	1.6%
JetBlue Airways	183,285	1.2%
Alaska Airlines	59,076	0.4%
	9,508,640	60.6%
Scheduled Regional / Commuter		
American Eagle		
Air Wisconsin Airlines	1,419,663	9.1%
Republic Airlines	1,326,308	8.5%
Piedmont Airlines	694,448	4.4%
PSA Airlines	307,357	2.0%
	3,747,776	23.9%
Other	227,752	1.5%
	3,975,528	25.3%
Charter	85	0.0%
Subtotal - Domestic	**13,484,253**	**86.0%**
International		
Scheduled Major / National		
American Airlines	1,536,251	9.8%
British Airways	128,290	0.8%
Frontier Airlines	80,497	0.5%
Lufthansa German Airlines	69,405	0.4%
Qatar Airways	61,745	0.4%
Delta Air Lines	35,045	0.2%
	1,911,233	12.2%
Scheduled Regional / Commuter		
American Eagle		
Air Wisconsin Airlines	160,730	1.0%
Republic Airlines	62,725	0.4%
	223,455	1.4%
Air Canada Express	61,797	0.4%
	285,252	1.8%
Charter	2,820	0.0%
Subtotal - International	**2,199,305**	**14.0%**
Total Enplaned Passengers	**15,683,558**	**100.0%**

Note: The City's fiscal year ends June 30th.

TABLE 3

City of Philadelphia Aviation Division
Philadelphia International Airport (PHL)
Airline Market Shares of Landed Weight
Fiscal Year 2016

Airlines	Landed Weight	Percent of Total
Domestic		
Scheduled Major / National		
American Airlines	6,622,368,800	31.8%
Southwest Airlines	1,122,080,000	5.4%
Delta Air Lines	1,054,651,100	5.1%
United Airlines	593,949,100	2.9%
Frontier Airlines	463,421,858	2.2%
Spirit Airlines	265,760,220	1.3%
JetBlue Airways	219,833,622	1.1%
Alaska Airlines	55,911,600	0.3%
Air Canada	660,000	0.0%
	10,398,636,300	49.9%
Scheduled Regional / Commuter		
American Eagle		
Air Wisconsin Airlines	1,641,945,000	7.9%
Republic Airlines	1,573,718,187	7.6%
Piedmont Airlines	856,092,900	4.1%
PSA Airlines	393,415,000	1.9%
Envoy Airlines	447,700	0.0%
	4,465,618,787	21.4%
Other	262,640,464	1.3%
	4,728,259,251	22.7%
Charter	679,404	0.0%
Subtotal - Domestic	**15,127,574,955**	**72.7%**
International		
Scheduled Major / National		
American Airlines	2,575,400,800	12.4%
British Airways	293,399,570	1.4%
Qatar Airways	174,408,000	0.8%
Lufthansa German Airlines	155,153,844	0.7%
Delta Air Lines	81,551,600	0.4%
Frontier Airlines	76,825,044	0.4%
Air Canada	660,000	0.0%
JetBlue Airways	142,200	0.0%
	3,357,541,058	16.1%
Scheduled Regional / Commuter		
American Eagle		
Air Wisconsin Airlines	192,136,000	0.9%
Republic Airlines	79,175,770	0.4%
	271,311,770	1.3%
Air Canada Express	105,717,988	0.5%
	377,029,758	1.8%
Charter	3,272,915	0.0%
Subtotal - International	**3,737,843,731**	**18.0%**
All-Cargo Airlines	**1,955,783,988**	**9.4%**
Total Landed Weight	**20,821,202,674**	**100.0%**

Note: The City's Fiscal Year Ends June 30.

Table 4

City of Philadelphia Aviation Division
Philadelphia International Airport (PHL)
Summary of Historical Project Revenues and Expenses of the Airport System
(Fiscal Years ending June 30th - dollar amounts are listed in thousands)

	Fiscal Year 2012	Fiscal Year 2013	Fiscal Year 2014	Fiscal Year 2015	Fiscal Year 2016
Amounts Available for Debt Service					
1. Space rentals	83,519	101,393	97,743	109,731	108,115
2. Landing fees	57,390	63,877	80,265	64,708	73,968
3. Ramp Area rentals	1,079	1,051	1,229	1,064	1,213
4. International Terminal revenues	16,202	20,042	24,874	26,572	34,025
5. Subtotal, Airline Rentals, Fees and Charges	158,190	186,363	204,111	202,075	217,322
6. Nonairline Revenues	111,196	103,519	112,759	119,096	123,434
7. Interest income and Contribution for carrier incentive program	199	1,899	24	1,676	494
8. Total Project Revenues	269,584	291,781	316,893	322,847	341,250
9. Passenger Facility Charges (PFCs) Available for Debt Service	31,573	31,160	31,168	31,169	31,176
10. Portion of Fund Balance Attributable to Amounts Available for Debt Service	65,939	69,272	66,542	66,340	71,220
11. Total Amounts Available for Debt Service	367,096	392,213	414,604	420,356	443,646
Expenses					
12. Net Operating Expenses	99,014	110,210	117,282	125,967	132,149
13. Required Renewal Fund Deposit	500	500	500	0	500
14. Revenue Bond Debt Service	103,042	109,836	125,397	125,248	120,595
15. Interdepartmental Charges	92,666	101,858	103,902	108,692	106,775
16. Total Expenses	295,222	322,404	347,082	359,908	360,020
17. Net Revenue	$ 71,874	$ 69,808	$ 67,522	$ 60,448	$ 83,626
Rate Covenant Tests of the Original General Airport Revenue Bond Ordinance					
18. Test A (Line 11- Line 12- Line 13) / (Line 14)	2.60	2.56	2.37	2.35	2.58
19. Test B (Line 11- Line 12- Line 13- Line 15) / (Line 14)	1.70	1.64	1.54	1.48	1.69

Note: The information presented above reconciles to the Basic Financial Statements contained in the City's Comprehensive Annual Financial Report (CAFR), which is audited by the Office of the City Controller.

Table 5

City of Philadelphia Aviation Division

Philadelpha International Airport (PHL)

History of Applications to Use PFC Revenues

PFC Application No.	Approval Date	Initial Approved Amount	Amended Approved Amount
93-02-U-00-PHL	05/15/1993	$ 14,250,000	$ 12,805,493
95-03-C-00-PHL	02/27/1995	101,500,000	94,683,960
95-04-U-00-PHL	10/13/1995	950,000	1,270,605
95-05-C-00-PHL	11/21/1995	14,000,000	14,000,000
98-06-C-00-PHL	02/11/1998	26,150,000	19,534,950
99-08-U-00-PHL	10/12/1999	672,000,000	999,267,790
01-09-C-00-PHL	02/22/2000	22,250,000	24,177,050
06-10-C-00-PHL	02/16/2006	83,250,000	289,450,000
15-11-C-00-PHL	09/15/2015	109,080,000	109,080,000
	Totals	$ 1,043,430,000	$ 1,564,269,848

Table 6

City of Philadelphia Aviation Division
Philadelphia International Airport (PHL)
Historical PFC Revenues
Fiscal Years 1993 - 2016

Fiscal Year	Collections	Interest	Total Revenues
1993	$ 14,484,101	$ 142,790	$ 14,626,891
1994	22,605,318	1,111,511	23,716,829
1995	21,828,173	2,285,485	24,113,658
1996	22,817,704	2,277,935	25,095,639
1997	27,229,901	1,837,334	29,067,235
1998	30,931,674	1,654,752	32,586,426
1999	29,408,652	2,018,264	31,426,916
2000	32,278,858	2,828,083	35,106,941
2001	31,880,729	3,362,695	35,243,424
2002	53,688,877	2,112,347	55,801,223
2003	43,961,971	1,537,729	45,499,700
2004	51,766,443	808,417	52,574,859
2005	61,378,549	1,284,025	62,662,574
2006	62,165,176	3,252,682	65,417,858
2007	65,328,768	5,047,045	70,375,813
2008	70,120,974	5,098,760	75,219,734
2009	60,898,941	1,886,741	62,785,682
2010	61,696,738	353,391	62,050,129
2011	62,338,653	191,092	62,529,745
2012	59,885,669	325,805	60,211,475
2013	58,495,629	414,832	58,910,461
2014	60,377,268	329,507	60,706,775
2015	60,644,305	436,648	61,080,953
2016	61,256,560	538,897	61,795,457
Totals	$ 1,127,469,632	$ 41,136,766	$ 1,168,606,398
		Expenditures	$ 1,075,216,419
		Balance	$ 93,389,979

Note: The City's fiscal year ends June 30th.

Table 7

City of Philadelphia Aviation Division
Philadelphia International Airport (PHL)
Historical Enplaned Passengers
Fiscal Years 1990 - 2016

Fiscal Year	Domestic	International	Total	Percentage Increase (Decrease)
1990	7,400,854	379,667	7,780,521	
1991	7,322,959	388,954	7,711,913	(0.9)%
1992	7,041,274	534,004	7,575,278	(1.8)%
1993	7,645,396	582,621	8,228,017	8.6%
1994	7,777,184	607,718	8,384,902	1.9%
1995	8,419,133	634,955	9,054,088	8.0%
1996	8,538,732	665,334	9,204,066	1.7%
1997	9,502,168	890,094	10,392,262	12.9%
1998	10,601,187	1,104,443	11,705,630	12.6%
1999	10,737,979	1,329,813	12,067,792	3.1%
2000	10,652,391	1,326,524	11,978,915	(0.7)%
2001	11,149,732	1,521,721	12,671,453	5.8%
2002	10,501,846	1,499,659	12,001,505	(5.3)%
2003	10,519,234	1,617,391	12,136,625	1.1%
2004	11,149,952	1,938,821	13,088,773	7.8%
2005	13,427,191	2,063,378	15,490,569	18.4%
2006	13,563,540	2,011,457	15,574,997	0.5%
2007	13,864,721	1,986,970	15,851,691	1.8%
2008	13,971,056	2,081,917	16,052,973	1.3%
2009	13,357,446	2,005,297	15,362,743	(4.3)%
2010	13,113,239	2,080,502	15,193,741	(1.1)%
2011	13,407,158	2,204,425	15,611,583	2.8%
2012	13,134,251	2,209,875	15,344,126	(1.7)%
2013	13,021,515	2,194,370	15,215,885	(0.8)%
2014	13,059,804	2,256,249	15,316,053	0.7%
2015	13,072,574	2,240,164	15,312,738	(0.0)%
2016	13,484,253	2,199,305	15,683,558	2.4%

	Compound Annual Growth Rate		
2001 - 2006	4.0%	5.7%	4.2%
2001 - 2011	1.9%	3.8%	2.1%
2001 - 2016	1.3%	2.5%	1.4%
2006 - 2011	(0.2)%	1.8%	0.0%
2006 - 2016	(0.1)%	0.9%	0.1%
2011 - 2016	0.1%	(0.0)%	0.1%

Note: The City's fiscal year ends June 30th.

FINANCIAL STATEMENTS
OF THE DIVISION OF AVIATION

For purposes of calculating Scheduled Airline rentals, fees and charges, and demonstrating compliance with the Rate Covenant, Aviation Fund accounts are maintained on the accrual basis of accounting adjusted to meet the particular requirements of the General Airport Revenue Bond Ordinance of the City. Using this basis of accounting, revenues are recorded as they are earned, and operating expenses are recorded as they are incurred. In addition, principal payments on debt are recorded as an element of expense in lieu of depreciation, and equipment purchases and other capital outlays funded from operations are charged to expense in the year of acquisition.

For purposes of budgeting, Aviation Fund accounts are maintained on the modified accrual basis of accounting also referred to as the “legally enacted basis.” Under this basis, revenues are recorded in the year received. Obligations are recognized and recorded as expenses at the time they are paid or encumbered. A reserve is maintained for encumbrances at the close of the fiscal year, intended to be sufficient to liquidate the estimated related obligations.

The accounting policies of the City of Philadelphia, as reflected in the accompanying Aviation Fund financial statements, conform to accounting principles generally accepted in the United States of America for local government units as prescribed by the Governmental Accounting Standards Board. Accounting principles generally accepted in the United States of America for proprietary funds, such as the Aviation Fund, require that both earnings and expenses be recorded as they accrue, and that depreciation of fixed assets be recorded as an expense. The financial statements for fiscal year 2016 are presented in accordance with accounting principles generally accepted in the United States of America.

The financial statements contained in the Financial Section of this document are reconcilable with the Basic Financial Statements contained in the City’s Comprehensive Annual Financial Report for fiscal year 2016, which are audited by the Office of the Controller of the City of Philadelphia.

INTRODUCTION

Philadelphia International Airport (PHL, or the Airport) and Northeast Philadelphia Airport (PNE) are owned by the City of Philadelphia (the City) and operated by the Division of Aviation (the Division). The following discussion and analysis of the financial performance and activity of the Division is to provide an introduction and understanding of the basic financial statements of the City's Aviation Fund (Aviation Fund) for the fiscal year ended June 30, 2016 (FY 2016) with selected comparative information for the fiscal year ended June 30, 2015 (FY 2015).

This discussion has been prepared by management and should be read in conjunction with the financial statements and the notes thereto that follow this section. The financial statements presented are for the Aviation Fund only, and are not intended to present fairly the financial position of the City as a whole or the results of its operations and cash flows. The Comprehensive Annual Financial Report of the City provides complete financial information as to the City and its component units. Complete financial information for the City and its component units can be found at: http://www.phila.gov/investor/CAFR.html.

BACKGROUND INFORMATION ON THE AVIATION FUND

The Aviation Fund is an enterprise fund of the City. Enterprise funds are established by governmental units to account for services that are provided to the general public based on user charges, and they are operated in a manner similar to business-type activities. The Aviation Fund was created and authorized as part of the FY 1974 Operating Budget Ordinance approved by City Council on June 7, 1973 and made effective July 1, 1973.

The Aviation Fund is self-supporting, using aircraft landing fees, terminal building rentals, concession revenue and other facility charges to fund annual expenses. The Airport's capital program is funded by airport revenue bonds issued by the City, commercial paper, federal and state grants, Passenger Facility Charges (PFC), Customer Facility Charges (CFC), and operating revenues.

DESCRIPTION OF PHILADELPHIA AIRPORT SYSTEM

PHL is classified by the Federal Aviation Administration as a large air traffic hub (enplaning 1.0% or more of the total passengers enplaned in the U.S.). According to data reported by Airports Council International – North America, PHL was ranked the nineteenth busiest airport in the United States, serving 31.4 million passengers in calendar year 2015, and was ranked the fourteenth busiest in the nation based on aircraft operations.

The Airport serves residents and visitors from a broad geographic area that includes eleven counties within four states: Pennsylvania, New Jersey, Delaware and Maryland. The Airport System consists of the following:

Philadelphia International Airport

Land: Approximately 2,425 acres located partly in the southwestern section of the City and partly in the northeastern section of Delaware County, about 7.2 miles from center city Philadelphia.

Runways: The Airport's runway system consists of parallel Runways 9L-27R and 9R-27L, crosswind Runway 17-35, commuter Runway 8-26, and interconnecting taxiways.

Terminal Buildings: Approximately 3.3 million square feet, consisting of seven terminal units (A-West, A-East, B, C, D, E and F). Terminal facilities principally include: ticketing areas, passenger holdrooms, baggage claim areas and approximately 180 food, retail and service establishments.

Other Buildings and Areas: Consisting of six active cargo facilities, two American Airlines aircraft maintenance hangars, a first class office complex, and a former United States Postal Service building located at the western end of the Airport.

Outside Terminal Area: Consisting of a 14-story, 400-room hotel, seven rental car facilities, a 150-vehicle cell-phone lot and two employee parking lots with a total of 4,200 spaces. This area also includes five parking garages and surface lots consisting of a total of 18,940 vehicle spaces, operated by the Philadelphia Parking Authority.

Northeast Philadelphia Airport

PNE is located on approximately 1,126 acres situated within the City limits, ten miles northeast of center city Philadelphia. PNE serves as a reliever airport for PHL and provides for general aviation, air taxi, corporate, and occasional military use. The airport currently has no scheduled commercial service. There are presently 85 T-hangars, nine corporate hangars and six open hangars for general aviation activities. There are approximately 175 general aviation aircraft based at PNE.

AIRPORT ACTIVITIES AND HIGHLIGHTS

- **Financial Position:** In FY 2016, the Aviation Fund strengthened its financial position with total revenues, including capital contributions, exceeding total expenses by $62.0 million while assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $866.2 million, a 7.7% increase over the FY 2015 total of $804.3 million. Unrestricted net position also increased $19.6 million, or 18.8%, in FY 2016.

- **Passenger and Other Traffic Activity:** In FY 2016, domestic enplaned passenger traffic grew as PHL's low-cost carriers, specifically Frontier Airlines and Spirit Airlines, began serving several new destination cities. JetBlue Airways also added twice daily service to Fort Lauderdale, FL during the course of FY 2016. This growth was offset by slight reductions in outbound international traffic, which was mainly attributable to American Airlines discontinuing year-round service to Tel Aviv, Israel in early January 2016 and seasonal service to Edinburgh, Scotland, which did not return in May 2015. Additionally, American temporarily suspended service to Brussels, Belgium in March 2016 after a series of coordinated bombings in the city, two of which occurred at Brussels Airport. American later closed the Brussels station across their entire network.

PHL experienced a decline in aircraft operations while also experiencing a slight increase in landed weight in FY 2016 due mainly to changes in aircraft fleet mix instituted by PHL's mainline carriers as they move to eliminate many of the regional aircraft from their respective route networks.

Enplanements and Operations Activity at PHL

	Fiscal Year 2016	Fiscal Year 2015	Percentage Increase (Decrease)
Domestic Enplanements (Outbound passengers):	13,484,253	13,072,574	3.1%
International Enplanements (Outbound passengers):	2,199,305	2,240,164	(1.8)%
Total Enplanements (Outbound passengers):	15,683,558	15,312,738	2.4%
Operations (Takeoffs & landings):	407,968	414,121	(1.5)%
Landed Weight (1,000-pound units):	20,821,203	20,772,632	0.2%

- **Highlights of Airline Operations at the Airport:** During calendar year 2016, the composition and volume of passenger activity at PHL changed as low cost carriers, such as Frontier, Spirit, Southwest and JetBlue, expanded service at PHL, while American made changes at its hub resulting in an overall decline in capacity. As a result of these changes, low cost carriers have gained market share and passengers have more options in key markets. While origin-destination (O&D) passenger volumes at PHL have increased from 57% to approximately 62%, total passengers have declined 4.1% on fewer connecting passengers.

  Low cost carriers drove an expansion of service and more options for PHL passengers in 2016. Frontier Airlines added more departing seat capacity from PHL than any other carrier, adding service to 13 additional destinations and growing total departing seats by 39%. Frontier's passengers increased 34% calendar year over year. Spirit Airlines added service to 5 additional destinations and grew its departing seats by 66% and passengers by 65%. Low cost carrier growth has resulted in more competition in key markets at PHL, 17 of which gained an additional carrier in the nonstop market. Low cost carriers, inclusive of Frontier, Spirit, Southwest and JetBlue, represented 14% of PHL's total departing seat share in calendar year 2016, up from 12% in calendar year 2015.

PHL maintained its critical role in the American Airlines route network in calendar year 2016. It was American's fourth largest hub in terms of departing flights and fifth largest hub in terms of departing seats and total destinations served. However, American has made capacity adjustments at PHL as it completes its integration with US Airways and responds to market conditions. Additionally, commuter service has been negatively impacted by the nationwide shortage of pilots, which is affecting all airports and route systems. These changes resulted in 9% fewer scheduled departures and 7% fewer scheduled departing seats. American passengers at PHL declined 9% in calendar year 2016.

American eliminated transatlantic service to Tel Aviv, Brussels and Zurich and reduced service to London and Frankfurt. Overall weakness in the transatlantic market, which is not specific to American or PHL, was a contributing factor to the capacity reductions. PHL's transition from a Star Alliance hub before the AA-US merger to a oneworld hub post-merger may have also contributed to the decision to reduce or eliminate service to Frankfurt, Brussels and Zurich, all of which are Star Alliance hubs. Despite these changes PHL has maintained its status as American's primary transatlantic hub, with the most destinations served and the highest share of departing seats and connecting passengers. It does not appear that the decline in transatlantic connecting passengers at PHL represents a shift to other American hubs, all of which experienced a decline in transatlantic connecting passengers in calendar year 2016.

Frontier continues to expand at PHL in 2017 with new year-round service to Houston, Texas (IAH) and seasonal service to West Palm Beach, Florida starting March 2017, resulting in a 14% increase in flights and an 8% increase in departing seats. While Spirit has not scheduled service to any new destinations from PHL in 2017, its total departing seats are scheduled to increase 28% due to additional frequencies in existing markets. Additionally in 2017, Southwest will transition its Fort Lauderdale service from seasonal to year-round service starting in June 2017; Alaska Airlines will be addding seasonal service to Portland, Oregon starting in May 2017; and Icelandair will launch seasonal service to Reykjavik, Iceland four times a week starting May 2017.

- ✈ **Use and Lease Agreement:** In June 2015, the City Council of Philadelphia approved a five-year Airport-Airline Use and Lease Agreement (Airline Agreement) between PHL and the airlines. The Airline Agreement began July 1, 2015, and includes options for two one-year extensions.

- ✈ **Airport Revenue Refunding Bonds:** In August 2015, Airport Revenue Bonds, Refunding Series 2015A in the amount of $97.8 million were issued. Serial bonds were issued with interest rates ranging from 4.0% to 5.0% with a final maturity in 2035. The proceeds of Series

2015A were used to refund $105.9 million of the Series 2005A Airport Revenue Bonds, maturing from 2016 through 2035 and to pay issuance costs on the bonds. The refunding structure of the 2015A bonds realized a net present value savings of approximately $9.3 million, or 8.75% of the principal amount of the refunded bonds.

- **Grant Funding:** In FY 2016, PHL was awarded a $14.0 million grant from the FAA for the construction of Runway 9R-27L Extension and an $800 thousand grant from the Pennsylvania Department of Transportation's (PennDOT) Bureau of Aviation to rehabilitate Taxiway S, which includes signage and lighting upgrades.

- **Transportation Network Companies (TNCs):** The Pennsylvania General Assembly temporarily authorized TNC operations in the City of Philadelphia via a budget bill during the summer of 2016. In July, PHL negotiated temporary license agreements with two national TNCs. These temporary agreements expired on September 30, 2016. The Pennsylvania General Assembly passed a comprehensive bill addressing TNCs across the Commonwealth in October. The bill provided that PHL may adopt contracts, licenses, and regulations relating to the duties and responsibilities on Airport property of TNCs, including the imposition of reasonable fees. PHL thereafter negotiated long-term license agreements with two TNCs to allow them to operate at the Airport. Both the temporary and long-term license agreements provide that the TNCs pay per-trip fees to PHL based on the number of Airport passenger drop offs and pick-ups.

- **Environmental Stewardship**

  Lighting Improvements: In FY 2016, PHL and airport concessionaires continued to install light emitting diode (LED) fixtures for numerous applications. Both interior and exterior LED lighting applications are being completed whenever feasible. The Philadelphia Parking Authority installed 1,400 LED lights along Arrivals Roadway. PECO rewarded PHL with a rebate check of nearly $122 thousand as a result of the PPA project and the new lighting is estimated to save the Airport approximately $120 thousand per year in energy costs.

  Restroom Renovations: In FY 2016, PHL continued restroom rennovations that incorporated water and energy saving features throughout the design and installation, including low flow toilets and urinals. Additionally, LED lighting, new hand dryers, and new rooftop air handling units are being installed. Water bottle filling stations have also been installed outside restroom areas for passengers to reduce waste by refilling and reusing bottles.

  Noise Abatement: The Airport's Noise Abatement Program addresses airport noise concerns throughout the Philadelphia region and into northern Delaware. During the overnight hours (11 p.m. to 6 a.m.), voluntary air traffic control procedures are in place to direct aircraft departing from PHL to fly along the Delaware River until reaching an altitude of 3,000 feet. The Airport worked collaboratively with the FAA to monitor and improve compliance with these procedures. On an average month, 99.7% of departure flights at PHL complied with the noise abatement procedures.

Electric Vehicles: In December 2015, seven electric vehicle charging stations were installed in the short-term and long-term parking facilities located at PHL. Each station can charge two vehicles at once, allowing fourteen electric vehicles to be charged at the Airport while parked. Two stations are located on level one of parking garage C, two on level one of garage D and three near the exit tollbooths in the economy parking lot.

✈ Awards and Recognition

World Heritage City: In November 2015, Philadelphia was recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as the nation's first World Heritage City. At an International Awards Ceremony travel trade show held at ITB Berlin, the Pacific Area Travel Writers Association (PATWA) named Philadelphia the best destination for heritage and culture.

Best in US 2016: With its historic roots, craft breweries and restaurants options, Philadelphia, PA was named America's top destination in 2016 by Lonely Planet Travel News, a worldwide travel publisher.

Ranked Among Nation's Most Affordable Airports: According to Cheapflights.com, PHL is one of the most affordable airports to travel from in the country. Cheapflights.com ranked PHL sixth out of 101 US airports that the site surveyed in its sixth annual Airport Affordability Index. The survey looked at average airfares that travelers found on the site during the month of June 2015 to a mix of popular domestic and international destinations and used the data to rank the 101 airports on its list.

Healthy Eating Choices Ranking: For 2015, the Physicians Committee for Responsible Medicine, a non-profit advocacy group of physicians that promotes nutrition's critical role in preventative medicine, named PHL as one of the healthiest airports in the nation for its healthy eating options. Out of 24 airports surveyed, PHL ranked third, tied with San Francisco International Airport. The Committee conducted its study by surveying registered dieticians and considered several healthy-eating criteria, including the availability of cholesterol-free, plant-based and fiber-packed meals. PHL jumped up eight spots on the list after tying for 11th place in the 2014 survey.

Fast Public WiFi: PHL ranked second among 20 airports in speed for its free WiFi service in its terminals. Ookla, a Seattle-based broadband speed testing firm, conducted upload and download testing during the last three months of 2016 and found that connection speeds at PHL were second only to Denver International Airport.

<u>Airport Property Manager of the Year</u>: James Tyrrell, Chief Revenue Officer at PHL was named 2015 Airport Property Manager of the Year at the 2016 Airport Revenue News (ARN) Conference and Exhibition in Dallas, TX. Each year, ARN recognizes individuals who have performed at the top of the industry.

<u>Distinguished Public Service Award</u>: In October 2015, The International Municipal Lawyers Association presented PHL Divisional Deputy City Solicitor Joseph F. Messina with the Joseph I. Mulligan, Jr. Distinguished Public Service Award for his work on behalf of PHL and the City of Philadelphia in forging an agreement between the City and Tinicum Township and the Interboro School District.

<u>Veterans of Influence Award</u>: In July 2016, The Philadelphia Business Journal presented Airport CEO Chellie Cameron with its 2016 Veterans of Influence Award recognizing distinguished veterans in the Philadelphia region. Ms. Cameron spent seven years as an active duty officer in the U.S. Air Force, achieving the rank of captain.

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FINANCIAL STATEMENTS OVERVIEW

The basic financial statements of the Aviation Fund are designed to provide the reader with a broad overview of the organization's finances, in a manner similar to the private sector. The financial statements are prepared in accordance with generally accepted accounting principles (GAAP) promulgated by the Governmental Accounting Standards Board (GASB).

The financial statements of the Aviation Fund are presented on an accrual basis, and accordingly, income is recorded as earned and expenses as incurred. Operating revenues are comprised of airline and non-airline revenues. Airline revenues are those paid by PHL's agreement carriers and include rents, landing fees, and per passenger fees. Non-airline revenues are all other operating revenues that do not qualify as airline revenue. These consist of concession fees, other rents, utilities and other operating revenue. Operating expenses include payroll and employee benefits; the purchase of services, materials and supplies; and depreciation/amortization. Non-operating revenue and expense items include interest income, interest expense, CFC and PFC revenues, and operating grants.

Aviation Fund financial activity is presented in three financial statements:

- The *Statement of Net Position* presents information on all Aviation Fund assets, deferred outflows of resources, liabilities, and deferred inflows of resources as of the fiscal year-end; assets and liabilities are classified as either current or non-current. The difference between (a) assets and deferred outflows of resources and (b) liabilities and deferred inflows of resources is reported as *net position.* Net position is segregated into four components: net investment in capital assets; restricted for capital projects; restricted for debt service; and unrestricted net position.

- The *Statement of Revenues, Expenses and Changes in Fund Net Position* presents revenue and expense activity for the current year. The difference between revenue and expense will either increase or decrease total net position. The ending balance of net position resulting from this increase or decrease is reflected on the Statement of Net Position.

- The *Statement of Cash Flows* presents the actual inflow and outflow of cash by category during the year. The difference between the inflow and outflow of cash increases or decreases the total cash balance. The resulting ending cash balance is reflected on the Statement of Net Position.

The Aviation Fund financial statements can be found in Section II of this report. The Notes provide additional information that is essential to a full understanding of the data provided in the Aviation Fund financial statements. In addition to the basic financial statements and accompanying notes, government accounting standards require presentation of *required supplementary information* (RSI).

FINANCIAL HIGHLIGHTS

Net Position Summary

The following table summarizes the Airport's assets, deferred outflows, liabilities and net position at June 30, 2016 and June 30, 2015:

City of Philadelphia – Aviation Fund
Statements of Net Position
(amounts expressed in thousands)

	Fiscal Year 2016	Fiscal Year 2015	Dollar Increase (Decrease)	Percentage Increase (Decrease)
Current assets	$ 146,011	$ 101,973	$ 44,039	43.2%
Non-current assets	366,119	420,130	(54,011)	(12.9)%
Capital assets, net	1,990,633	1,948,873	41,760	2.1%
Total assets	2,502,763	2,470,975	31,789	1.3%
Deferred outflows	49,852	34,755	15,096	43.4%
Current liabilities	333,781	303,239	30,541	10.1%
Non-current liabilities	1,351,094	1,398,230	(47,136)	(3.4)%
Total liabilities	1,684,875	1,701,469	(16,595)	(1.0)%
Deferred inflows	1,522	-	1,522	-
Net position:				
Net investment in capital assets	800,301	702,391	97,910	13.9%
Restricted for capital projects	73,033	125,136	(52,102)	(41.6)%
Restricted for debt service	77,598	81,078	(3,480)	(4.3)%
Unrestricted	(84,715)	(104,344)	19,629	(18.8)%
Total net position	$ 866,218	$ 804,261	$ 61,957	7.7%

Total net position serves as a indicator of the Airport's financial position. At June 30, 2016, the Aviation Fund's assets and deferred outflows exceeded liabilities and deferred inflows by $866.2 million. Between FY 2015 and FY 2016, total net position increased by nearly $62.0 million. Changes in total net position are summarized below:

Total assets increased by $31.8 million. Current assets increased by $44.0 million primarily due to increases in cash and investments in the Operating Fund. Conversely, non-current assets decreased by $54.0 million due primarily to decreases in cash and investments in the Capital Fund. Additionally, capital assets increased by a net of nearly $41.8 million due to capital outlays totaling $142.0 million resulting from ongoing Airport capital projects, and offset by net depreciation of nearly $100.3 million.

Deferred outflows of resources increased by a net of $15.1 million. The increase is entirely attributable to employer pension contributions, mainly the net difference between projected and actual earnings on pension plan investments.

Total liabilities decreased by a net of $16.6 million. The current portion of total liabilities increased $30.5 million primarily due to the Division drawing $22.3 million of additional commercial paper notes to finance airline-approved capital improvement projects. Unearned revenue also increased $20.1 million due to an increase in prepaid rents from PHL tenants and overcollection of revenues from the airlines in FY 2016. These increases were offset by a $12.6 million decrease in construction contracts payable in FY 2016. The non-current portion of total liabilities decreased by a net of $47.1 million primarily due to the change in the non-current portion of bonds payable totaling $72.2 million which was offset by a $19.1 million increase in the Airport's net pension liability.

Deferred inflows of resources were recorded at $1.5 million in FY 2016. This includes nearly $0.2 million resulting from the gain on refunding debt and $1.3 million of deferred pension revenue.

Net investment in capital assets increased by $97.9 million. Capital assets increased by $142.0 million, less $100.3 million in depreciation expense. This overall net increase in capital assets of $41.7 million was supplemented by net decreases in related debt of $56.1 million. The change in related debt included a net reduction in bonds payable, the issuance of additional commercial paper, and a net increase in the unamortized premiums and refunding losses totaling $41.2 million. This decrease in related debt was offset by an increase of $2.3 million in unspent capital debt proceeds and a $12.6 million decrease in construction contracts payable. Although these capital assets assist the Airport in providing services to the traveling public, they are generally not available to fund operations of future periods.

Restricted for capital projects represents funds available but restricted for construction of capital assets, reduced by debt payable on those funds. This balance decreased by $52.1 million in FY 2016 as a result of a $51.5 million decrease in the PFC balance reserved for "Pay as you go" construction.

Restricted for debt service decreased by $3.5 million. This decrease is entirely attributable to the reduction in the sinking fund reserve requirement which resulted from the FY 2015 retirement of the Airport's Revenue Refunding Bonds, Series 2010B, as well as the FY 2016 issuance of Airport Revenue Refunding Bonds, Series 2015A.

Unrestricted net position increased by $19.6 million. The unrestricted component of net position represents the net amount of total assets, deferred outflows of resources, total liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets nor the restricted component of net position. The net increase in unrestricted net position results from an increase of $43.1 million in total assets, the $16.3 million increase in deferred outflows of resources related to pensions, an increase of $38.3 million in total liabilities and the $1.4 million recognition of deferred inflows of resources related to pensions.

Summary of Revenues, Expenses and Changes in Net Position

The following table compares the changes in revenues, expenses and fund net position between June 30, 2016 and June 30, 2015:

City of Philadelphia – Aviation Fund
Statements of Revenues, Expenses and Changes in Fund Net Position
(amounts expressed in thousands)

	Fiscal Year 2016	Fiscal Year 2015	Dollar Increase (Decrease)	Percentage Increase (Decrease)
Operating revenues	$ 340,796	$ 322,365	$ 18,432	5.7%
Operating expenses	346,107	332,809	13,298	4.0%
Operating loss	(5,310)	(10,444)	5,134	(49.2)%
Non-operating revenue, net	43,064	51,865	(8,801)	(17.0)%
Income before capital contributions	37,753	41,421	(3,668)	(8.9)%
Capital contributions	24,204	35,550	(11,346)	(31.9)%
Changes in net position	61,957	76,971	(15,014)	(19.5)%
Net position beginning of year	804,261	894,969	(90,708)	(10.1)%
Change in accounting principle	-	(167,679)	167,679	(100.0)%
Net position end of year	$ 866,218	$ 804,261	$ 61,957	7.7%

Airport income before capital contributions is composed of operating and non-operating revenues, net of expenses. Capital contributions represent federal and state grants for approved capital projects.

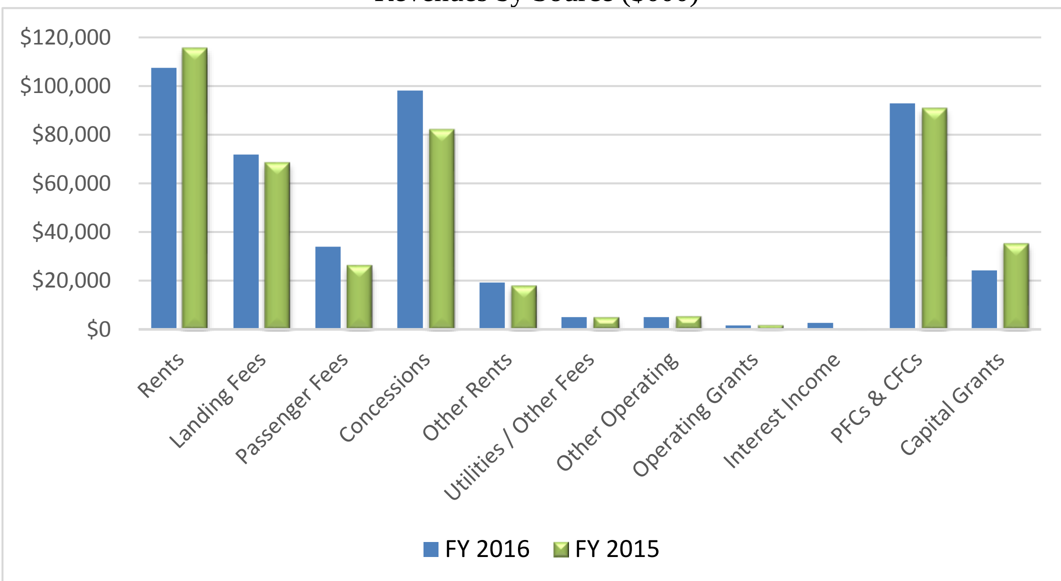
The change in net position represents the results of operations and is a useful indicator of whether the overall financial condition of the Airport has improved or declined during the year. In FY 2016, net position increased by $62.0 million from the prior year. This increase reflects net income and capital contributions.

Revenues

Approximately 74% of all revenue came from operating sources, which include space rentals, landing fees and revenues from parking, concessions and car rentals. CFC and PFC revenues account for another 20%, with the remainder coming from federal and state grants and interest earnings. Approximately 37% of operating revenues came from nonairline revenue such as parking, rental cars, concessions and other fees. A further breakdown of revenues can be found in the Statistical Section.

The graph below presents the major components of revenue for FY 2016 and FY 2015, followed by explanations of changes in these categories between years.

Revenues by Source ($000)



Operating revenues are comprised of airline and non-airline revenues. Airline revenues are those paid by PHL's agreement carriers (signatory) and include the first three categories in the above chart; rents, landing fees, and passenger fees. Non-airline revenues are all other operating revenues that do not qualify as airline revenue. These consist of concession fees, other rents, utilities and other operating revenue. Operating revenues increased by $18.4 million (5.7%) in FY 2016.

- **Rents** derived from PHL's signatory airlines decreased by $8.1 million (7.0%) from FY 2015 to FY 2016 due primarily to the recognition of accrued revenue and unearned revenue. In FY 2015, the Airport recognized accrued revenue of nearly $2.3 million, whereas in FY 2016, the Airport recorded unearned revenue of $3.6 million, reflecting a net decrease of $5.9 million. In addition, in FY 2016, the Airport recorded approximately $1.7 million offset to revenue to reflect that the airlines repaid one-third of the $5 million Operation and Maintenance (O&M) Account accrual from FY 2015.

- **Landing fees** derived from PHL's signatory airlines increased by $2.9 million (4.3%) from FY 2015 to FY 2016 primarily due to the increase in the landing fee rate. The signatory landing fee rate was increased $0.47 per 1,000 lb. unit (12.3%) in FY 2016. This increase in revenue resulting from the rate increase was offset by recognition of accrued revenue and unearned revenue. In FY 2015, the Airport accrued revenue of nearly $5.5 million, whereas in FY 2016, the Airport recorded unearned revenue of $8.6 million, reflecting a net decrease of $14.1 million. In addition, in FY 2016, the Airport recorded approximately $1.7 million offset to revenue to reflect that the airlines repaid one-third of the $5 million O&M Account accrual from FY 2015.

- **Passenger fees** derived from PHL's signatory airlines increased by $7.4 million (27.7%) in FY 2016 due primarily to an average increase of 19.3% in the signatory passenger rates in FY 2016. Additionally, PHL experienced an increase in domestic and international passenger traffic in the terminals (A-East and A-West) that result in such revenue.

- **Concessions** consist primarily of revenues derived from food and beverage/retail/service establishments, on-Airport and off-Airport parking operations, and rental car operations. Concessions increased $15.8 million (19.2%) in FY 2016 mainly due to revenue attributable to the Airport's concession development program operated by MarketPlace PHL, LLC (MPPHL). PHL experienced a one-time $12.2 million increase in revenue from MPPHL in FY 2016 as the company transitioned contracts from the former entity, MarketPlace Philadelphia, LP (MPPLP), effective January 1, 2015. As part of this transition, there was a close-out of the former contract which resulted in several operating reserve accounts being closed and paid to the Airport in FY 2016 that actually related to FY 2015 and the original service agreement with MPPLP. In addition, PHL experienced increases in advertising, parking, and rental car revenue in FY 2016 of $1.1 million, $0.9 million and $1.0 million, respectively.

Non-operating revenues, which consist of federal, state and local grants for non-capital purposes, PFCs, CFCs, and interest income, increased by $3.8 million (4.0%) in FY 2016.

- **Grants** from other governments for non-capital purposes (operating grants) decreased by nearly $0.3 million (14.0%) in FY 2016. This decrease in revenue is attributable to the decrease in the Transportation Security Administration's (TSA) federal grant reimbursement for PHL's deployment of law enforcement officers.

- **PFCs** decreased by less than $0.3 million (0.4%) in FY 2016 which is simply attributable to the timing of airline ticket sales, the derivation of PFC revenue.

- **CFCs** increased $2.0 million (6.7%) in FY 2016 due to the increase in the number of rental car transactions days, the derivation of CFC revenue.

- **Interest income** increased by $2.3 million (631.8%) in FY 2016 which is reflective of the overall performance of the Airport's investments across all funds and the unrealized gains from investments.

Capital contributions, which consist of federal, state and local grants for capital purposes decreased by $11.3 million (31.9%) in FY 2016.

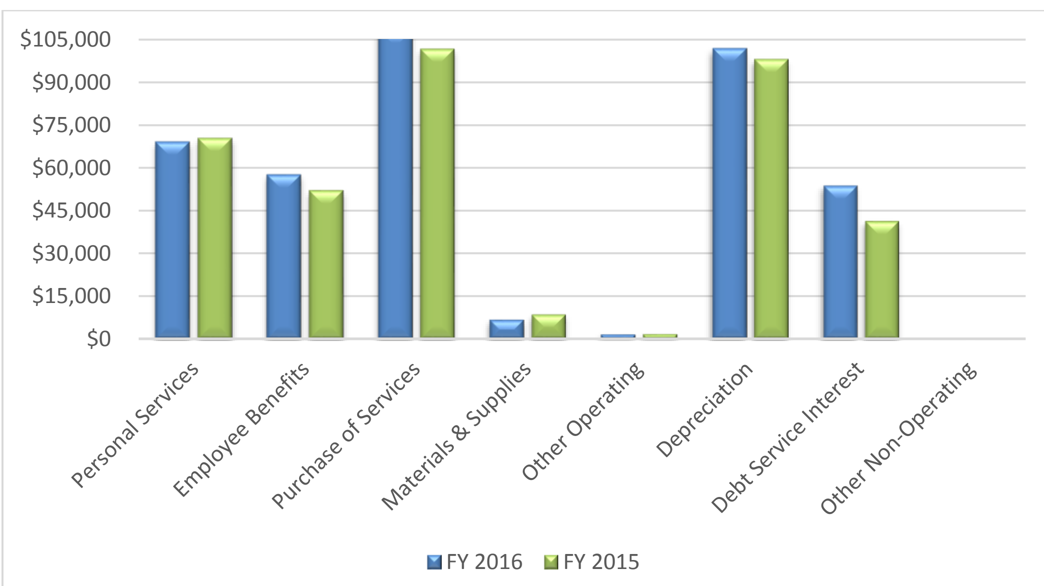
- **Capital grant revenue** in any given year is dependent upon construction timelines for reimbursement of grant-eligible Airport capital projects. The decrease for FY 2016 is due to federal grant-eligible expenditures decreasing nearly $8.5 million in FY 2016 and PA grant-eligible expenditures decreasing $2.8 million in FY 2016.

Expenses

Airport expenses result from a wide range of services. Wages, benefits and contractual services account for approximately 59% of total expenses; depreciation and amortization comprise an additional 26% of the total, with the remainder accounting for debt service interest and other operating and non-operating expenses.

The graph below presents the major components of expense for FY 2016 and FY 2015, followed by an explanation of changes in these components.

Expenses by Source ($000)



Operating expenses, which includes the first six categories in the bar chart above, increased by $13.3 million (4.0%) in FY 2016.

- **Personal services and employee benefits** increased by a total of $4.6 million (3.8%) in FY 2016.

  Personal services decreased $1.1 million (1.6%) in FY 2016 due primarily to one-time contract ratification bonuses paid to the Airport's blue-collar AFSCME District Council 33 (DC 33) represented employees in FY 2015. The overall decrease in payroll costs was despite a marginal increase in staffing of total Aviation employees from FY 2015 to FY 2016.

  Employee benefits increased $5.7 million (11.0%) in FY 2016 primarily due to increases in the Airport's pension costs. In FY 2016, the City's recognized pension expense totaled $117.0 million, including amortization of deferred ouflows and inflows of resources for pension related items. The Airport's share of the City's pension expense including deferred outflow and inflow of resources for pension related items was $4.1 million. Additionally, the Airport accrued an increase of $0.9 million for compensated absences, or earned but unused vacation leave, in FY 2016.

- **Purchase of services** increased by nearly $6.8 million (6.7%) in FY 2016 mainly due to an $8.7 million net effect of expensing indirect costs from construction in progress (CIP) and the capitalization of operating expenditures.

- **Materials and supplies and other operating expenses**, including the purchase of equipment, decreased nearly $1.9 million (17.8%) in FY 2016. This is mainly attributable to the retirement of aged equipment, the change in the valuation of the materials and supplies inventory at fiscal year-end 2016, and the change in accrued expenses, year-over-year.

- **Depreciation and amortization expense** increased $3.8 million (3.9%) in FY 2016. This increase was primarily due to the addition of newly acquired property, specifically the International Plaza complex, and completed capital projects, including the resurfacing of Runway 9L-27R. The straight-line method is used to record depreciation starting in the year following addition.

Non-operating expenses, which includes debt service interest and other non-operating expenses, increased nearly $12.6 million (30.4%) in FY 2016. This increase is entirely attributable to the change in the amounts of interest capitalized to construction in progress, from nearly $21.4 million in FY 2015 to $4.9 million in FY 2016.

Summary of Cash Flows

The following table shows the major sources and uses of cash for FY 2016 and FY 2015:

City of Philadelphia – Aviation Fund
Statements of Cash Flows
(amounts expressed in thousands)

	Fiscal Year 2016	Fiscal Year 2015	Dollar Increase (Decrease)	Percentage Increase (Decrease)
Cash received from operations	$ 367,374	$ 320,917	$ 46,457	14.5%
Cash expended from operations	(241,011)	(232,229)	(8,782)	3.8%
Net cash provided by operations	126,363	88,688	37,675	42.5%
Net cash provided by non-capital financing activities	1,765	1,645	120	7.3%
Net cash provided by (used in) capital and related financing activities	(132,188)	(75,171)	(57,017)	75.8%
Net cash provided by (used in) investing activities	19,208	52,973	(33,765)	(63.7)%
Net (decrease) in cash and cash equivalents	15,148	68,135	(52,987)	(77.8)%
Balance beginning of year	95,466	27,331	68,135	249.3%
Balance end of year	$ 110,614	$ 95,466	$ 15,148	15.9%

The Statements of Cash Flows present how the Airport's cash and cash equivalents position changed during the course of the fiscal year. Sinking funds and reserves held by the fiscal agent are not considered cash. The Statements presented above are not inclusive of investments that do not qualify as cash equivalents, those that exceed 90 days of maturity from date of purchase.

Cash that was temporarily idle during fiscal years 2016 and 2015 was invested in demand deposits, certificates of deposits, commercial paper (CP), United States government and agency obligations and other investments permitted under the City's investment policy.

During FY 2016, proceeds from the issuance of debt totaled $668.9 million which is merely a function of the issuance of new CP notes as well as the "rolling" of CP at maturity.

Cash expended for capital construction, reflected in net cash provided by capital and related financing activities, was $151.4 million and $189.6 million for fiscal years 2016 and 2015, respectively. Grant proceeds used to fund capital projects, reflected in net cash provided by capital and related financing activities, totaled $25.1 million for both fiscal years 2016 and 2015.

CAPITAL ASSETS AND CONSTRUCTION

The Airport's investment in capital assets, net of accumulated depreciation, amounted to more than $1.99 billion at the end of FY 2016. The following table presents the changes in capital assets for FY 2016.

City of Philadelphia – Aviation Fund
Capital Assets
(amounts expressed in thousands)

	Fiscal Year 2015	Additions	Deletions	Fiscal Year 2016
Non-Depreciable Assets				
Land and Intangibles	$ 147,049	$ 3,074	$ -	$ 150,123
Construction in Progress	553,817	143,077	(264,767)	432,127
Total Non-Depreciable Assets	700,866	146,151	(264,767)	582,250
Depreciable Assets				
Buildings	1,890,485	168,236	-	2,058,721
Infrastructure	934,730	93,457	-	1,028,187
Equipment	54,587	660	(1,692)	53,555
Total Depreciable Assets	2,879,802	262,353	(1,692)	3,140,463
Accumulated Depreciation				
Capital Additions	(960,377)	(64,204)	-	(1,024,581)
Infrastructure	(629,489)	(35,003)	-	(664,492)
Equipment	(41,930)	(2,702)	1,625	(43,007)
Total Accumulated Depreciation	(1,631,796)	(101,909)	1,625	(1,732,080)
Net Depreciable Assets	1,248,006	160,444	(67)	1,408,383
Total Capital Assets	$ 1,948,872	$ 306,595	$ (264,834)	$ 1,990,633

Capital Development

The Airport regularly renovates, improves and expands its facilities to improve the passenger experience and meet the demands of the aviation industry. In the last ten years, the Airport has constructed more than $1.3 billion of capital improvements, including expansion and renovation of existing terminals, and airfield improvement projects, including a runway extension.

The Airport's capital projects are included in the long-range Capacity Enhancement Program (CEP) and a near-term, on-going Capital Improvement Program (CIP). The CEP is a set of projects being pursued to improve efficiency, modernize airport facilities and provide additional capacity for future growth. It is a multi-year endeavor with multiple phases, and the timing for each development will be closely coordinated with the airlines and other stakeholders in order to maintain operational efficiency during construction. Approved CEP projects include a runway extension, taxiway improvements and the consolidated rental car facility. The Airport is working with its airline partners to review the sequencing and prioritization of the remaining elements within the CEP, which include expanding and reconfiguring the existing terminal complex; a new runway; an additional runway extension; further taxiway improvements; relocating several on and off-airport facilities to facilitate airfield improvements; cargo facility development; and parking and roadway improvements.

The CIP focuses on the near-term capital facility needs. CIP projects are developed to complement the framework of the CEP and the Airport's ultimate development. Major CIP projects include completion of Terminals D/E checked baggage inspection system; a new deicing facility; and on-going rehabilitation and replacement projects.

The following capital projects with current airline or other funding approval are outlined below. These projects are in various phases of planning, design, construction and completion.

Capital Projects Underway

Capital asset additions included nearly $143.1 million in construction in progress in FY 2016. Major projects underway during the fiscal year included:

Terminals D/E Expansion: Previously completed phases of this project consist of a new 210,000 square foot multi-level connector building between Terminals D and E; a 50,000 square foot addition to the Terminal E concourse that provided three additional passenger gates; a 9,000 square foot connector building between baggage claim areas for Terminals D and E; and various renovations to areas within the two terminals and the adjacent Thermal Plant. The final phase of the project will be the activation of an in-line Explosive Detection System (EDS) and the completion of the remaining Terminal E ticket counters and airline ticket office items. This final phase is scheduled to be completed in the spring of 2017 with an approved project cost of $40.0 million.

Runway 9R-27L Extension and Associated Taxiways (EE and H): This project will extend existing Runway 9R-27L to the east by approximately 1,500 feet to a total length of 12,000 feet. In addition, this project includes the construction of Taxiways EE and H in order to improve the flow and sequencing of aircraft to and from Terminals E and F and reduce taxiway complexity. The final phase of this project includes relocation of fuel lines and installation of a new localizer antenna array for Runway 9R-27L. This project is currently under construction and scheduled for completion in 2018. The approved project cost is $201.0 million.

Terminal Modernization Program: This program focuses on capacity in the terminals with a new automated baggage handling and screening system, and may include a new, more spacious, centralized passenger security checkpoint to provide for greater efficiency and enhanced passenger flow. The current project budget of $237.1 includes funding for planning, design and some initial construction.

Consolidated Rental Car Facility (CONRAC): This project will replace the current rental car facility surface lots with a new, multi-story consolidated rental car facility. This project is currently in the planning phase. Customer Facility Charge (CFC) revenue is currently being collected on rental transactions and will be the source of funding for the project. Funding for this project is not subject to airline approval.

New Deicing Facility: This project will convert the existing boom operation into a state of the art trucking operation. Work is expected to be completed in the fall of 2017. The approved project cost is $43.0 million.

Roof and Air Handling Unit Replacement: This project includes the replacement of existing roof and roof-top air handling units on Terminals B, C and D. Phase one of this project is expected to be completed in the summer of 2017, with phase two to start immediately thereafter. The entire project is expected to be completed in the summer of 2018. The approved project cost in total is $15.0 million.

Loading Bridge Replacement Program Phase Two: Phase two of the Passenger Loading Bridge Replacement Program will replace an additional 13 jet bridges in Terminals B, C, and D. This project is scheduled to be completed in the fall of 2020 at an estimated cost of $23.0 million.

Other Infrastructure Rehabilitation Projects: A myriad of other repair and rehabilitation projects are in the planning and design phases, such as mechanical systems, roof repairs and restroom upgrades.

Recently Completed Capital Projects and Acquisitions

Fixed asset additions totaled nearly $262.4 million during FY 2016. It is the Airport's policy that when projects are completed, they are transferred from construction in progress to fixed assets. Significant acquisitions, design and construction projects completed during FY 2016 include the following:

Terminal F Expansion: This multi-phase project included reconfiguring and adding approximately 80,000 square feet to Terminal F. The expansion included a new baggage claim building on the arrivals roadway providing two claim devices; enlarged passenger holdrooms and concession areas; enlarged club room; crew lounges; and other airline operations facilities for American Airlines. The Airport completed phase One of the Terminal F expansion project in 2014 that included an enlarged "Central Hub" to accommodate additional concession space and improve passenger flow. Phase Two of this project provided additional capacity for passenger and baggage processing for American's affiliate airline operations. This project was completed in the summer of 2016 at a cost of $160.6 million.

Acquisition: In July 2015, PHL acquired a 27-acre parcel of property adjacent to the Airport. The property consists of two 6-story office buildings, one of which has a 3-story annex, with the net floor area of the buildings totaling nearly five hundred thousand square feet, as well as entrance roads and setbacks, landscaping, and surface parking lots. Settlement and other closing costs for this property amounted to approximately $90.7 million.

Access Control Upgrades: Security access and security surveillance at PHL requires periodic upgrades and perimeter fortification in compliance with TSA and PHL security guidelines. The phase one upgrades included expansion of the access control components, software upgrades, and interior door rehabilitation. This project was completed in September 2016 at a cost of $10.0 million.

Security Bollards: This security project, approved by the TSA, and required to meet the established vehicle projection standards for passenger terminals, was completed in the summer of 2016. The cost for this project totaled $4.4 million. Work included: removal and relocation of existing jersey barriers, installation of concrete bollards with sleeves and sidewalk and curb beautification.

Roadway Repairs: This project is a multi-phased project that includes periodic resurfacing and improvements of nearly eight miles of roadway in Cargo City, terminal approaches, departure and arrival roads, the interconnecting roads, and the recirculation roads. Roadway improvement phase one was completed in September 2016 at a cost of $3.2 million.

DEBT ADMINSTRATION

As of June 30, 2016, PHL's outstanding long-term debt totaled $1.1 billion and payments for scheduled maturities totaled $63.2 million. The following table summarizes the changes in long-term debt, including the current portion, for FY 2016:

City of Philadelphia – Aviation Fund
Changes in Long-Term Debt
(amounts expressed in thousands)

	Fiscal Year 2015	Additions	Retirements/ Repayments	Fiscal Year 2016
Revenue bonds	$ 1,193,915	$ 97,780	$ 166,990	$ 1,124,705

For FY 2016, total revenue bonds payable of $1.125 billion, less current maturities of $63.24 million, equated to $72.29 per enplaned passenger, compared to $74.04 for FY 2015.

Refunding Bonds: Additions to long-term debt result from the issuance of Airport Revenue Bonds, Refunding Series 2015A in the amount of $97.8 million that were issued in August 2015. The proceeds of Series 2015A were used to refund $105.9 million of the Series 2005A Airport Revenue Bonds, maturing from 2016 through 2035 and to pay issuance costs on the bonds.

Credit Ratings: Fitch and Moody's maintained their ratings of "A" and "A2", respectively, for PHL's outstanding airport revenue bonds and both affirmed a stable outlook to the Airport. Standard & Poor's (S&P) affirmed their underlying "A" rating in January 2017 while maintaining its stable outlook.

Commercial Paper Program: PHL established a $350 million commercial paper (CP) program in early 2013 to provide funding for capital projects approved by PHL's signatory airlines. CP is a short-term financing tool with a maximum maturity of 270 days. PHL's CP Program enables capital projects to be financed on an as-needed basis, which lowers the Airport's cost of borrowing and limits negative arbitrage during project construction periods. CP Notes will continue to be "rolled over" until long-term bonds are issued to refund outstanding CP. As of June 30, 2016, PHL had drawn $189.9 million of CP, which was used to fund ongoing capital projects, program management efforts and the purchase of land parcels.

Rate Covenant: Table 4, "Summary of Historical Project Revenues and Expenses," in the Introductory Section presents the calculation of Airport Revenue Bond debt service coverage (Rate Covenant Test 1) and total debt service coverage (Rate Covenant Test 2) in accordance with Section 5.01 of the Amended and Restated General Revenue Bond Ordinance (GARBO). Rate Coverage Test 1 requires PHL to maintain debt service coverage of not less than 1.50x and Rate Covenant Test 2 requires debt service coverage of not less than 1.0x. Debt service coverage is calculated based on a formula in GARBO. Historically, PHL has maintained a coverage ratio significantly higher than its requirement. During FY 2016, PHL's debt service coverage for Test 1 was 2.58x and Test 2 was 1.69x.

BUDGETARY HIGHLIGHTS

Actual expenditures for FY 2016 were 2.6% lower than budgeted expenditures. The following factors contributed to this difference:

Direct expenses were $1.8 million (1.4%) higher than budgeted in FY 2016. This was primarily attributable to Aviation's costs for personnel and contractual services related to the general facility maintenance of Airport and additional expenditures on facilities in anticipation of the World Meeting of Families in September 2015.

Net interdepartmental charges were $8.1 million (7.1%) lower than projected in FY 2016. These results are a function of several expense categories but are mainly due to realized savings of nearly $3.7 million from the Airport's fringe benefit costs and $1.3 million from costs related to the operation and maintenance of PHL's fleet of vehicles. Additionally, PHL experienced a decrease of nearly $0.8 million in utility (electric, natural gas, telephones, and water, sewer & stormwater) costs, below the forecasted amount and $0.7 million each from the budgeted services provided by the Airport's legal counsel and the timing involved in processing the acquisition of replacement vehicles.

Net debt service was $1.8 million (1.9%) lower than budgeted in FY 2016. This was due to savings in anticipated interest expense on the CP Program and from realized savings resulting from Airport Revenue Bonds, Refunding Series 2015A. The Series 2015A bonds were issued in September 2015 to refund all of the City's outstanding Airport Revenue Bonds, Series 2005A.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of Philadelphia International Airport's finances and to demonstrate the City's accountability for the funds it receives and disburses. For additional information concerning this report, please contact: Chief Financial Officer, Philadelphia International Airport, Executive Offices, Terminal D, 3rd Floor, Philadelphia, PA 19153.

CITY OF PHILADELPHIA
AVIATION FUND
Statements of Net Position

		Fiscal Year 2016		Fiscal Year 2015	Percentage Increase (Decrease)
Assets					
Current assets					
Cash and cash equivalents	$	31,385,876	$	12,673,343	147.7%
Investments		84,868,399		53,404,171	58.9%
Accounts receivable		26,216,267		32,513,510	(19.4)%
Allowance for doubtful accounts		(1,179,733)		(1,124,334)	4.9%
Inventories		3,395,306		3,036,651	11.8%
Due from other governmental units		1,325,300		1,469,259	(9.8)%
Total current assets		146,011,415		101,972,600	43.2%
Non-current assets					
Restricted:					
Cash and cash equivalents		79,228,764		82,451,581	(3.9)%
Cash held by fiscal agent		449		341,517	(99.9)%
Investments		207,841,323		253,271,199	(17.9)%
Sinking funds and reserves held by fiscal agents		47,869,253		50,838,529	(5.8)%
Grants from other governments for capital purposes		21,806,799		22,699,763	(3.9)%
Receivables		9,372,361		10,526,912	(11.0)%
Total restricted assets		366,118,949		420,129,501	(12.9)%
Capital assets:					
Land and other non-depreciable assets		150,123,537		147,049,224	2.1%
Infrastructure		1,028,187,767		934,730,396	10.0%
Construction in progress		432,126,149		553,817,009	(22.0)%
Buildings and equipment		2,112,276,668		1,945,072,375	8.6%
Less: accumulated depreciation and amortization		(1,732,081,227)		(1,631,796,429)	6.1%
Property, plant and equipment, net		1,990,632,894		1,948,872,575	2.1%
Total non-current assets		2,356,751,843		2,369,002,076	(0.5)%
Total assets		2,502,763,258		2,470,974,676	1.3%
Deferred outflows of resources					
Accumulated decrease in fair value of hedging derivatives		16,038,983		16,224,798	(1.1)%
Deferred outflows related to pensions		28,306,952		11,951,418	136.9%
Refunding in defeasance of debt		5,505,599		6,579,230	(16.3)%
Total deferred outflows of resourses	$	49,851,534	$	34,755,446	43.4%

See notes to the financial statements.

		Fiscal Year 2016		Fiscal Year 2015	Percentage Increase (Decrease)
Liabilities					
Current liabilities					
Accounts and vouchers payable	$	13,945,095	$	16,693,694	(16.5)%
Salaries and wages payable		2,638,711		2,303,548	14.5%
Construction contracts payable		38,430,923		51,033,985	(24.7)%
Accrued expenses		1,496,764		1,366,742	9.5%
Accrued interest payable		2,442,275		2,434,588	0.3%
Unearned revenue		21,686,958		1,591,740	1262.5%
Commercial paper notes		189,900,000		167,600,000	13.3%
Current maturities of long-term bonded debt		63,240,000		60,215,000	5.0%
Total current liabilities		333,780,726		303,239,297	10.1%
Non-current liabilities					
Revenue bonds, net of current maturities		1,061,465,000		1,133,700,000	(6.4)%
Unamortized bond premiums		36,199,087		31,414,622	15.2%
Derivative instrument liability		16,038,983		16,224,798	(1.1)%
Net pension liability		222,761,206		203,648,019	9.4%
Other long-term liabilities		14,629,559		13,242,407	10.5%
Total non-current liabilities		1,351,093,835		1,398,229,846	(3.4)%
Total liabilities		1,684,874,561		1,701,469,143	(1.0)%
Deferred inflows of resources					
Deferred gain on refunding debt		171,560		-	-
Deferred inflows related to pensions		1,350,807		-	-
Total deferred inflows of resourses		1,522,367		-	-
Net position					
Net investment in capital assets		800,301,351		702,391,149	13.9%
Restricted for:					
Capital projects		73,033,097		125,135,588	(41.6)%
Debt service		77,598,368		81,078,267	(4.3)%
Unrestricted		(84,714,952)		(104,344,025)	(18.8)%
Total net position	$	866,217,864	$	804,260,979	7.7%

See notes to the financial statements.

CITY OF PHILADELPHIA
AVIATION FUND
Statements of Revenues, Expenses and Changes in Fund Net Position

	Fiscal Year 2016	Fiscal Year 2015	Percentage Increase (Decrease)
Operating revenues			
Airline revenues			
Rents	$ 107,504,766	$ 115,637,922	(7.0)%
Landing fees	71,796,365	68,868,068	4.3%
International arrival fees	33,927,721	26,573,596	27.7%
Total airline revenues	213,228,852	211,079,586	1.0%
Nonairline revenues			
Concessions	98,224,716	82,411,406	19.2%
Other rents	19,270,494	18,141,092	6.2%
Utilities and other fees	5,063,174	5,178,082	(2.2)%
Other operating revenues	5,009,010	5,554,490	(9.8)%
Total nonairline revenues	127,567,394	111,285,070	14.6%
Total operating revenues	340,796,246	322,364,656	5.7%
Operating expenses			
Personal services	69,283,424	70,424,997	(1.6)%
Purchase of services	108,418,709	101,642,118	6.7%
Materials and supplies	6,944,528	8,669,852	(19.9)%
Employee benefits	57,854,677	52,106,797	11.0%
Indemnities and taxes	1,695,946	1,839,638	(7.8)%
Depreciation and amortization	101,909,394	98,125,419	3.9%
Total operating expenses	346,106,678	332,808,821	4.0%
Operating loss	(5,310,432)	(10,444,165)	(49.2)%
Non-operating revenues (expenses)			
Federal, state and local grants	1,621,300	1,885,786	(14.0)%
Interest income	2,658,109	363,206	631.8%
Interest expense	(54,003,323)	(41,428,793)	30.4%
Passenger facility charges	60,920,335	61,180,724	(0.4)%
Customer facility charges	31,934,786	29,933,177	6.7%
Loss on disposal of fixed assets	(67,463)	(69,113)	(2.4)%
Total nonoperating revenues, net	43,063,744	51,864,987	(17.0)%
Income before capital contributions	37,753,312	41,420,822	(8.9)%
Capital contributions			
Federal, state and local grants	24,203,573	35,549,920	(31.9)%
Total capital contributions	24,203,573	35,549,920	(31.9)%
Change in net position	61,956,885	76,970,742	(19.5)%
Net position beginning of period	804,260,979	894,969,059	(10.1)%
Cumulative effect of a change in accounting principle	-	(167,678,822)	(100.0)%
Net position beginning of period - restated	804,260,979	727,290,237	10.6%
Net position end of period	$ 866,217,864	$ 804,260,979	7.7%

See notes to the financial statements.

CITY OF PHILADELPHIA
AVIATION FUND
Statements of Cash Flows

	Fiscal Year 2016	Fiscal Year 2015	Percentage Increase (Decrease)
CASH FLOWS FROM OPERATING ACTIVITIES:			
Receipts from customers	$ 366,334,147	$ 319,785,174	14.6%
Receipts from interfund services	1,040,227	1,131,961	(8.1)%
Payments to suppliers	(112,151,538)	(108,489,896)	3.4%
Payments to employees	(121,820,713)	(118,170,311)	3.1%
Internal activity-payments to other funds	(7,038,751)	(5,568,512)	26.4%
Net cash provided by operating activities	126,363,372	88,688,416	42.5%
CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES			
Grant proceeds not specifically restricted for capital purposes	1,765,259	1,644,715	7.3%
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:			
Proceeds from issuance of debt	668,900,000	283,700,000	135.8%
Grant proceeds for capital purposes	25,096,537	25,060,241	0.1%
Purchase of capital assets	(151,396,205)	(189,575,315)	(20.1)%
Principal paid on debt instruments	(715,810,000)	(218,150,000)	228.1%
Interest paid on capital debt	(52,910,013)	(65,850,331)	(19.7)%
Passenger & customer facility charges	93,931,328	89,644,341	4.8%
Net cash used in capital and related financing activities	(132,188,353)	(75,171,064)	75.9%
CASH FLOWS FROM INVESTING ACTIVITIES:			
Net proceeds (purchases) from sale and maturities of investments	18,195,937	52,296,600	(65.2)%
Interest and dividends	1,012,433	676,119	49.7%
Net cash provided/(used) by investing activities	19,208,370	52,972,719	(63.7)%
NET CHANGE IN CASH AND CASH EQUIVALENTS	15,148,648	68,134,786	(77.8)%
Balance beginning of year	95,466,441	27,331,655	249.3%
Balance end of year	$ 110,615,089	$ 95,466,441	15.9%
RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED BY OPERATING ACTIVITIES:			
Operating loss	$ (5,310,432)	$ (10,444,165)	(49.2)%
Adjustment to reconcile operating loss to net cash provided by operating activities:			
Depreciation and amortization	101,909,394	98,125,419	3.9%
Bad Debts, net of recoveries	-	25,000	(100.0)%
Changes in assets and liabilities:			
Receivables, net	6,502,717	(912,726)	(812.5)%
Inventories	(358,655)	(83,728)	328.4%
Accounts and other payables	3,525,131	2,552,726	38.1%
Unearned revenue	20,095,217	(574,110)	(3600.2)%
Net cash provided by operating activities	$ 126,363,372	$ 88,688,416	42.5%

See notes to the financial statements.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Operations

The Aviation Fund is a proprietary fund of the City of Philadelphia (the City). It was created and authorized as part of the Fiscal 1974 Operating Budget Ordinance approved by City Council on June 7, 1973, with an effective date of July 1, 1973. This fund was established to facilitate administrative and financial operations necessary to maintain, improve, repair and operate Philadelphia International Airport (PHL, or the Airport) and Northeast Philadelphia Airport (PNE). The financial statements presented are for the Aviation Fund only, and are not intended to present fairly the financial position of the City of Philadelphia as a whole or the results of its operations and cash flows. The comprehensive annual financial report of the City of Philadelphia provides complete financial information as to the City and its component units.

Basis of Accounting

The accompanying financial statements have been prepared on the accrual basis of accounting. Under this method, revenues are recognized in the accounting period in which they are earned and expenses are recognized at the time obligations are incurred.

Private sector standards of accounting and financial reporting issued prior to December 1, 1989, generally are followed in both the government wide and the proprietary fund financial statements to the extent that they do not conflict or contradict guidance of the Governmental Accounting Standards Board (GASB). Governments also have the option of following subsequent private sector guidance for their business type activities and enterprise funds. The City has elected not to follow subsequent private sector guidelines.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's ongoing operations. The principal operating revenue of the Aviation Fund is charges for the use of the airport. Operating expenses for proprietary funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Recently Issued GASB Statements

In fiscal year 2016, the City implemented GASB Statement No. 72, *Fair Value Measurement and Application*. This Statement addresses accounting and financial reporting issues related to fair value measurements and provides guidance for determining a fair value measurement for financial reporting purposes. This Statement also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. The requirements of this Statement are effective for financial statements for periods beginning after June 15, 2015. The Airport has determined and disclosed all fair value measurements.

In June 2015, the GASB issued Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement No. 68 and an Amendment to Certain Provision of GASB Statements No. 67 & No. 68*. This Statement is effective for financial statements for fiscal years beginning after June 15, 2015. The City's accounting and financial reporting are within the scope of Statement No. 68. The adoption of this Statement did not result in any significant changes to the City's financial statements.

In June 2015, the GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefits Other Than Pensions*. The objective of this Statement is to improve the usefulness of information about postemployment benefits other than pensions (other postemployment benefits or OPEB) included in the general purpose external financial reports of state and local governments. This Statement replaces Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. The scope of this Statement includes OPEB plans—defined benefit and defined contribution—administered through trusts that meet certain criteria. This Statement also includes requirements to address financial reporting for assets accumulated for purposes of providing defined benefit OPEB through OPEB plans that are not administered through trusts that meet specified criteria. This Statement is effective for financial statements for fiscal years beginning after June 15, 2016. The City has not completed the process of evaluating the impact of adopting this Statement.

In June 2015, the GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (OPEB). This Statement replaces the requirements of Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. It establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. For defined benefit OPEB, this Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed. This Statement is effective for fiscal years beginning after June 15, 2017. The City has not completed the process of evaluating the impact of adopting this Statement.

In June 2015, the GASB issued Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*. The objective of this Statement is to identify – in the context of the current governmental financial reporting environment - the hierarchy of generally accepted accounting principles (GAAP). The "GAAP hierarchy" consists of the sources of the accounting principles used to prepare financial statements of state and local governmental entities in conformity with GAAP and the framework for selecting those principles. This Statement addresses the use of authoritative and non-authoritative literature in the event that the accounting treatment for a transaction or other event is not specified within a source of authoritative GAAP. This Statement supersedes Statement No. 55, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*. The requirements of this Statement are effective for financial statements for periods beginning after June 15, 2015. The adoption of this Statement did not result in any significant changes to the City's financial statements.

In August 2015, the GASB issued Statement No. 77, *Tax Abatements Disclosures*. This Statement requires governments that enter into tax abatement agreements to disclose certain information regarding the tax being abated, the authority under which tax abatements are provided, eligibility criteria, the mechanism by which taxes are abated, provisions for recapturing abated taxes, and the types of commitments made by tax abatement recipients. It also requires disclosure of the gross dollar amount of taxes abated during the period. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2015. The City has not completed the process of evaluating the impact of adopting this Statement.

In December 2015, the GASB issued Statement No. 78, *Pensions Provided for Certain Multiple-Employer Defined Benefit Pension Plans*. The objective of this Statement is to address a practice issue regarding the scope and applicability of Statement No. 68, *Accounting and Financial Reporting for Pensions*. This issue is associated with pensions provided through certain multiple-employer defined benefit pension plans and to state or local governmental employers whose employees are provided with such pensions. The requirements of this Statement are effective for reporting periods beginning after December 15, 2015. The City has not completed the process of evaluating the impact of adopting this Statement.

In December 2015, the GASB issued Statement No. 79, *Certain External Investment Pools and Pool Participants.* This Statement addresses accounting and financial reporting for certain external investment pools and pool participants. It establishes criteria for an external investment pool to qualify for making the election to measure all of its investments at amortized cost for financial reporting purposes. The requirements of this Statement are effective for reporting periods beginning after June 30, 2015, except for certain provisions on portfolio quality, custodial credit risk, and shadow pricing which are effective for reporting periods beginning after December 15, 2015. As a result of the adoption of Statement No. 79, the City has determined and included all applicable disclosures.

In January 2016, the GASB issued Statement No. 80, *Blending Requirements For Certain Component Units*. The objective of this Statement is to improve financial reporting by clarifying the financial statement presentation requirements for certain component units. This Statement amends the blending requirements established in paragraph 53 of Statement No. 14, *The Financial Reporting Entity*. The requirements of this Statement are effective for reporting periods beginning after June 15, 2016. The City has not completed the process of evaluating the impact of adopting this Statement.

In March 2016, the GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. The objective of this Statement is to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. The requirements of this Statement are effective for reporting periods beginning after December 15, 2016. The City has not completed the process of evaluating the impact of adopting this Statement.

In March 2016, the GASB issued Statement No. 82, *Pension Issues – an amendment of GASB Statements No. 67, No. 68, and No. 73*. The objective of this Statement is to address certain issues regarding the presentation of payroll-related measures in required supplementary information, the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The requirements of this Statement are effective for reporting periods beginning after June 15, 2016. The City has not completed the process of evaluating the impact of adopting this Statement.

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. The City has not completed the process of evaluating the impact of adopting this Statement.

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018. The City has not completed the process of evaluating the impact of adopting this Statement.

Cash and Investments

The Aviation Fund's cash and investments are held in segregated operating and capital accounts and by an outside fiscal agent. Sinking funds and reserves are maintained in segregated investment accounts to comply with reserve and other requirements of the bond covenants. No Aviation Fund accounts are commingled with other City funds.

Investments are recorded at fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on national or international exchanges are valued at the last reported sales price. Investments which do not have an established market are reported at estimated fair value.

Statutes authorize the City to invest in obligations of the Treasury, agencies, and instruments of the United States, repurchase agreements, collateralized certificates of deposit, bank acceptance or mortgage obligations, certain corporate bonds, and money market funds. Management is not aware of any violations of statutory authority or contractual provisions for investments for the years ended June 30, 2016 and 2015.

Accounts Receivable

Accounts receivable included in current assets consists of billed and unbilled rentals and fees, which have been earned but not collected as of June 30, 2016 and 2015. Credit balance receivables have been included in unearned revenue in the Statements of Net Position. The allowance for doubtful accounts is management's estimate of the amount of accounts receivable which will be deemed to be uncollectible and is based upon specific identification. Unpaid accounts are referred to the City's Law Department if deemed uncollectible. Accounts are written off when recommended by the Law Department.

In fiscal year 2015, the Division of Aviation and the Philadelphia Airport Affairs Committee (PAAC) entered into an agreement that would reduce the fiscal year 2015 base rate to the airlines in exchange for a $10 million contribution from the Airport's Operation and Maintenance (O&M) reserve account that would be replenished by the signatory airlines, through the rates and charges process, over a three-year period from fiscal years 2016 to 2018. The Airport included this $10 million as part of the $32.5 million Accounts Receivable reported for the Aviation Fund in the FY 2015 Statement of Net Position. Since the agreement states that repayment of the contribution is to take place over the next three years, the Division of Aviation recorded a $3.3 million offset to airline revenue in FY 2016, specifically landing fees and rents, in recognition of the recovery of one-third of the prior year accrued revenue of $10 million from FY 2015. The remainder of $6.7 million of the $10 million receivable will be collected during fiscal years 2017 ($3.3 million) and 2018 ($3.4 million).

Inventories

Inventories consist of materials and supplies and are carried at amounts determined on a moving-average cost basis.

Restricted Assets

Restricted assets represent amounts that have been legally restricted by contracts or outside parties and are not available for payment of operating fund expenditures. The following represent restricted assets of the Aviation Fund:

- Funds available for construction, including grants due from other governments for capital purposes.
- Sinking funds and reserves reserved for debt service and construction, pursuant to revenue bond indentures.

- Passenger Facility Charges (PFCs) represent fees remitted by airlines based on passenger ticket sales for flights boarding at Philadelphia International Airport. The fees are reserved for funding certain Federal Aviation Administration (FAA)-approved capital projects and debt service payments. Collection of PFCs began in the fall of 1992. All unexpended PFC funds, including accumulated interest, are classified as restricted assets.

- Customer Facility Charges (CFCs) represent fees collected by rental car operators from customers renting motor vehicles at Philadelphia International Airport. CFCs are not to exceed $8 per rental day. The proceeds are to be used for the planning, development, financing, construction and operation of a consolidated rental car facility. Collections of CFCs began in May 2014. All unexpended CFC funds, including accumulated interest, are classified as restricted assets.

Capital Assets

Capital assets are defined by the GASB as including "land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets that are used in operations that have initial useful lives extending beyond a single reporting period."

- Land is always treated separately from any related capital asset associated with it (i.e.: a building on the land, a runway on the land, etc.). The cost of the land includes its acquisition price and the cost of preparing the land for its intended use. Included in preparation costs are commissions, professional fees, permanent landscaping, demolition of existing buildings, and other costs incurred in acquiring the land.

- Intangible capital assets lack physical substance and can be expected in many cases to provide benefit indefinitely. An example of an intangible capital asset is software that was developed in-house.

- Buildings and Building Improvements are permanent structures included in the category of buildings. Building improvements increase the value of the building and/or materially extends the useful life of the building. If the improvement does not meet these conditions, those costs are expensed in the period incurred. Repairs and maintenance are examples of items expensed because they help to retain value and do not increase the value of the asset.

  Costs to be included in the capitalized cost of buildings include purchase price, expenses related to making the building ready for use, environmental compliance costs, professional fees, taxes paid at the time of purchase, and other costs required to place the asset into operation.

Constructed buildings include, but are not limited to, project costs for interest accrued during construction; cost of excavation, grading or filling; expenses incurred for the plan preparation; specification; blueprints; permits and professional fees; and costs of temporary buildings used during construction. Costs are expensed if a decision is made to not proceed with the construction of a building.

Building improvements may include conversion of unused space into usable space, original installation or upgrading of heating and cooling systems, wall or flooring coverings, windows and doors, closets, restrooms, phone and closed circuit television systems, security systems, wiring required for building equipment (that will remain in the building), renovations of outside building surfaces (including roofs, installation or replacement of plumbing and electrical wiring), permanently attached fixtures, machinery, building additions, and costs associated with the above improvements.

Building repairs and maintenance that do not increase the value of the building or extend its useful life are to be expensed. Examples of such costs may include plumbing or electrical repairs, maintenance such as pest control and cleaning, interior and exterior decorations, re-painting and repairing of interior and exterior portions of buildings, and any other repairs and maintenance costs that do not increase the value or extend its useful life of the asset.

- Vehicles and equipment are defined as movable tangible assets used in operations. It includes furniture and fixtures, vehicles, snow removal vehicles and equipment, firefighting vehicles and equipment, computer equipment, and other moveable equipment.

- Infrastructure assets are long-lived capital assets that are normally stationary and can be preserved for a significantly greater number of years than most capital assets. Infrastructure includes, but is not limited to: runways, taxiways, aprons, ramps, roads, sidewalks, signage, drainage systems, water and sewer systems, and lighting systems.

- Construction in progress includes costs incurred to construct a capital asset before it is substantially ready to be placed in service. At the time of being placed in service, the asset will be reclassified into the appropriate asset category and be subject to depreciation.

- The following Depreciation Guidelines were used in the Aviation Fund's FY 2016 financial statements:

  Capital assets that are not depreciated because they have indefinite useful lives are land, works of art, historical treasures, and intangibles.

If a capital asset has a determinable and significant salvage value, that value is not included in the depreciable value to be depreciated over the useful life of the asset.

All depreciable capital assets are expensed using the straight-line method over the following useful lives of the assets and if these thresholds are met.

Asset Category	Life of Asset	Threshold
Land	Not Depreciated	None
Intangibles	Not Depreciated	None
Buildings	20 - 50 Years	$100,000
Building Improvements	10 - 25 Years	$100,000
Equipment	5 - 15 Years	$10,000
Vehicles	5 - 10 Years	$10,000
Infrastructure	20 - 50 Years	$100,000

It is the policy of PHL that a half year of depreciation is recorded in the year that the asset is acquired or placed in service.

Unearned Revenue

Unearned revenue relates primarily to excess billings to signatory airlines and advance payments received from air carriers. Such deferrals are ultimately included in income when earned, usually during the following fiscal year.

Revenues

Operating revenues consist of the following:

- Airline revenue – airline revenues are those paid by PHL's signatory carriers and include rents, landing fees, and per passenger fees.

- Non-airline revenue – non-airline revenues are all other operating revenues that do not qualify as airline revenue. These consist of concession fees, other rents, utilities and other operating revenue.

Non-operating revenues consist primarily of the following:

- Grants from other governments for non-capital purposes.

- Interest income.

- PFCs – revenue from PFCs is reserved for the funding of certain capital expenditures and debt service payments, as approved by the FAA.

- CFCs – revenue from CFCs is reserved for the funding of certain capital expenditures and will be used to plan, design, and construct a facility to be used by vehicle rental companies on Airport property.

Capital contributions consist of the following:

- Grants from other governments for capital purposes.

Operating Expenses

Operating expenses consist primarily of personnel and administrative services, purchase of goods and services and depreciation and amortization expense.

Bonds and Related Premiums, Discounts, Issuance Costs and Loss on Refunding

Bond premiums and discounts are deferred and amortized on the straight-line method over the life of the bonds using the effective interest method. Bonds payable are reported net of applicable premium or discount. Bond issuance costs are expensed as incurred. The loss on refunding of bonds is amortized on the straight-line method over the lesser of the life of the old debt or the new debt issued.

Compensated Absences

It is the City's policy to allow employees to accumulate earned but unused vacation benefits. Vacation pay is accrued as earned. Sick leave balances are not accrued in the financial statements because sick leave rights are non-vesting.

Claims and Judgments

Pending claims and judgments are recorded as expenses when the City Solicitor has deemed that a probable loss to the City has occurred.

Management's Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications of a General Nature

Certain prior period amounts have been reclassified to conform to the current year presentation. The reclassifications have no effect on previously reported changes in net position.

2. DEPOSITS AND INVESTMENTS

For the fiscal years ended June 30, 2016 and 2015, cash and cash equivalents, and investments (deposits) are included in the financial statements in current and restricted cash and cash equivalents, and investments (deposits), in sinking funds and reserves held by fiscal agents, and in cash held by fiscal agent.

Deposits

State statutes require banks to collateralize City deposits at amounts equal to or in excess of the City's balance. Such collateral is to be held by the Federal Reserve Bank or the trust department of a commercial bank other than the pledging bank. All of the collateralized securities were held in the City's name.

Investments

The City has established a comprehensive investment policy to minimize custodial credit risk for its investments. In so doing, the City has selected custodian banks that are members of the Federal Reserve System to hold its investments. Delivery of the applicable investment documents to the City's custodian is required for all investments.

As of June 30, 2016 the fair value of the Aviation Fund's holdings consisted of the following:

	Fair Value	% of Total
U.S. Government Securities	$ 119,465,723	31.83%
Corporate Bonds	82,158,220	21.89%
U.S. Government Agency Securities	82,097,515	21.87%
Commercial Paper	70,742,988	18.85%
Short-Term Investment Pools	20,891,535	5.57%
	$ 375,355,981	100.0%

As of June 30, 2015 the fair value of the Aviation Fund's holdings consisted of the following:

	Fair Value	% of Total
U.S. Government Securities	$ 133,474,700	32.92%
U.S. Government Agency Securities	91,534,834	22.57%
Corporate Bonds	73,060,333	18.02%
Commercial Paper	70,462,229	17.38%
Short-Term Investment Pools	36,973,274	9.12%
	$ 405,505,370	100.0%

Interest Rate Risk: The City's investment portfolio is managed to accomplish preservation of principal, maintenance of liquidity, and to maximize the return on the investments. To limit its exposure to fair value losses from rising interest rates, the City's investment policy limits investments to maturities of no longer than two years, except in Sinking Fund Reserve Portfolios.

As of June 30, 2016 the maturities of holdings were as follows:

	Less Than 1 Year	1 - 3 Years
U.S. Government Securities	$ 139,957	$ 119,325,767
Corporate Bonds	-	82,158,220
U.S. Government Agency Securities	38,571,041	43,526,474
Commercial Paper	70,742,988	-
Short-Term Investment Pools	20,891,535	-
	$ 130,345,521	$ 245,010,461

As of June 30, 2015 the maturities of holdings were as follows:

	Less Than 1 Year	1 - 3 Years
U.S. Government Securities	$ 2,401,304	$ 131,073,396
U.S. Government Agency Securities	41,701,193	49,833,641
Corporate Bonds	2,207,497	70,852,836
Commercial Paper	70,462,229	-
Short-Term Investment Pools	36,973,274	-
	$ 153,745,497	$ 251,759,873

Credit Risk: For the City as a whole, the policy to limit credit risk is to invest in U.S. Government securities (34.75%) or U.S. Government Agency obligations (29.86%). The U.S. Government Agency obligations must be rated AAA by Standard & Poor's Corp. (S&P) or Aaa by Moody's Investor Services (Moody's). All U.S. Government Securities meet the criteria. The City's investment in Commercial Paper (18.90%) must be rated A1 by S&P and/or M1G1 by Moody's and the senior long-term debt of the issuer must not be rated lower than A by S&P and/or Moody's. Commercial Paper is also limited to 25% of the portfolio. All commercial paper investments meet the criteria. Of the corporate bonds held by the City, 10.45% had an S&P rating of AAA to AA. Cash accounts are swept nightly and idle cash invested in money market funds (short-term investment pools). Short-term investment pools are rated AAA by S&P and Aaa by Moody's. The City limits its foreign currency risk by investing in certificates of deposit and bankers acceptances issued or endorsed by non-domestic banks that are denominated in U.S. dollars providing that the banking institution has assets of not less than $100 million and has a Thompson's Bank Watch Service "Peer Group Rating" not lower than II.

Fair Value Measurement: The City measures and records its investments using fair value measurement guidelines established by generally accepted accounting principles. These guidelines recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets

- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability

- Level 3: Unobservable inputs for assets or liabilities

The Airport has the following recurring fair value measurements as of June 30, 2016:

- U.S. Treasury securities of $119.5 million are valued using quoted prices from active markets (Level 1).

- Corporate bond securities of $82.4 million are valued using quoted prices for similar securities in active markets and via matrix pricing models (Level 2).

- U.S. Agency securities of $82.1 million are valued using quoted prices for identical securities traded in active markets when sufficient activity exists (Level 2).

- Commercial paper securities of $70.7 million are valued using quoted prices for identical securities in markets that are not active and via matrix pricing models (Level 2).

- Short-term investment pools of $20.9 million are valued at the published amortized cost-based net asset value per share/unit. There are no limitations or restrictions on withdrawals.

3. CASH HELD BY FISCAL AGENT

The amounts held by the fiscal agent consist of cash and investments related to the net proceeds of Philadelphia Authority for Industrial Development's (PAID) Airport Revenue Bonds Series 1998A and 2001A. In accordance with GASB Interpretation #2, these bonds are considered by PAID to be conduit debt. Therefore, no asset related to the bond proceeds or liability related to the bonds is shown on PAID's financial statements.

The proceeds are held by a fiscal agent and disbursed at the City's direction to pay for Airport related capital improvements. Both the assets and liabilities related to the PAID bonds are included in the financial statements of the Aviation Fund.

4. CAPITAL ASSET ACTIVITY

The following tables present the changes in capital assets for FY 2016 and FY 2015.

	Balance FYE 06/30/2015	Additions	Deletions	Balance FYE 06/30/2016
Non-depreciable assets				
Land and intangibles	$ 147,049,224	$ 3,074,313	$ -	$ 150,123,537
Construction-in-progress	553,817,009	143,076,806	(264,767,666)	432,126,149
Total non-depreciable assets	700,866,233	146,151,119	(264,767,666)	582,249,686
Depreciable assets				
Buildings & improvements	1,559,755,960	149,088,710	-	1,708,844,670
Infrastructure	934,730,396	93,457,371	-	1,028,187,767
Other improvements	330,729,508	19,147,272	-	349,876,780
Equipment	54,586,907	660,370	(1,692,059)	53,555,218
Total depreciable assets	2,879,802,771	262,353,723	(1,692,059)	3,140,464,435
Accumulated depreciation				
Buildings & improvements	(797,368,597)	(50,148,677)	-	(847,517,274)
Infrastructure	(629,489,341)	(35,002,857)	-	(664,492,198)
Other improvements	(163,008,252)	(14,055,658)	-	(177,063,910)
Equipment	(41,930,239)	(2,702,202)	1,624,596	(43,007,845)
Total accumulated depreciation	(1,631,796,429)	(101,909,394)	1,624,596	(1,732,081,227)
Net depreciable assets	1,248,006,342	160,444,329	(67,463)	1,408,383,208
Total capital assets	$ 1,948,872,575	$ 306,595,448	$ (264,835,129)	$ 1,990,632,894

	Balance FYE 06/30/2014	Additions	Deletions	Balance FYE 06/30/2015
Non-depreciable assets				
Land and intangibles	$ 146,996,383	$ 52,841	$ -	$ 147,049,224
Construction-in-progress	401,059,017	233,487,098	(80,729,106)	553,817,009
Total non-depreciable assets	548,055,400	233,539,939	(80,729,106)	700,866,233
Depreciable assets				
Buildings & improvements	1,545,131,644	14,624,316	-	1,559,755,960
Infrastructure	928,331,034	6,399,362	-	934,730,396
Other improvements	271,931,654	58,797,854	-	330,729,508
Equipment	53,141,637	2,076,432	(631,162)	54,586,907
Total depreciable assets	2,798,535,969	81,897,964	(631,162)	2,879,802,771
Accumulated depreciation				
Buildings & improvements	(749,756,175)	(47,612,422)	-	(797,368,597)
Infrastructure	(595,684,442)	(33,804,899)	-	(629,489,341)
Other improvements	(149,590,623)	(13,417,629)	-	(163,008,252)
Equipment	(39,201,819)	(3,290,469)	562,049	(41,930,239)
Total accumulated depreciation	(1,534,233,059)	(98,125,419)	562,049	(1,631,796,429)
Net depreciable assets	1,264,302,910	(16,227,455)	(69,113)	1,248,006,342
Total capital assets	$ 1,812,358,310	$ 217,312,484	$ (80,798,219)	$ 1,948,872,575

A portion of bond interest expense net of related interest income on unexpended funds is capitalized during the construction phase of the projects funded by the bonds. Net interest capitalized to construction in progress was $4,944,033 and $21,021,935 for the fiscal years ending June 30, 2016 and 2015, respectively. For the fiscal year ending June 30, 2016, this represents $5,053,251 of interest expense net of $109,218 of interest income. For the fiscal year ending June 30, 2015, this represents $21,384,293 of interest expense net of $362,358 of related interest income.

Depreciation and amortization expense was $101,909,394 and $98,125,419 for the fiscal years ending June 30, 2016 and 2015, respectively.

5. UNEARNED REVENUE

Unearned revenue was $21,686,958 and $1,591,740 for the fiscal years ending June 30, 2016 and 2015, respectively and includes revenues received in advance, excess billing to the scheduled airlines, and credit balance receivables.

6. ARBITRAGE REBATE

The Aviation Fund has several series of revenue bonds subject to federal arbitrage requirements. Federal tax legislation requires that the accumulated net excess of interest income on the proceeds of these issues over interest expense paid on the bonds be paid to the federal government at the end of a five-year period. The arbitrage rebate liability was $0 and $312,932 as of June 30, 2016 and 2015, respectively, and is included in other long-term liabilities.

In December 2015, the Airport remitted to the Internal Revenue Service 100% of the liability resulting from the issuance of the Philadelphia Authority for Industrial Development, Airport Revenue Bonds, Series 1998A Bonds. The liability totaled $309,216.33 as of the installment computation date of October 31, 2015.

7. DERIVATIVE INSTRUMENTS AND INTEREST RATE SWAP

Beginning in fiscal year 2010, the City adopted the provisions of GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*. The fair value balances and notional amounts of derivative instruments outstanding for the Aviation Fund as of June 30, 2016 and 2015 are as follows:

Type	Cash Flow Hedge - pay fixed interest rate swap
Change in Fair Value of Deferred	
Outflow at June 30, 2016	$185,815
Outflow at June 30, 2015	$2,747,776
Fair value at June 30, 2016	($16,038,983)
Fair value at June 30, 2015	($16,224,798)
Objective	Hedge changes in cash flow on the 2005 Series C bonds
Notional amount at June 30, 2016	$121,400,000
Notional amount at June 30, 2015	$131,200,000
Effective date	06/15/2005
Maturity date	06/15/2025
Terms	Airport pays multiple fixed swap rates; receives SIFMA Municipal Swap Index
Counterparty credit rating	
at June 30, 2016	Aa3/A+
at June 30, 2015	Aa3/A+

Objective: In April 2002, the City entered into a swaption that provided the City's Aviation Division with an up-front payment of $6.5 million. As a synthetic refunding of its 1995 Bonds, this payment approximated the present-value savings as of April 2002 of refunding on June 15, 2005, based upon interest rates in effect at the time. The swaption gave JP Morgan Chase Bank, N.A. the option to enter into an interest rate swap with the Airport whereby JP Morgan would receive fixed amounts and pay variable amounts.

Terms: JP Morgan exercised its option to enter into a swap on June 15, 2005, and the swap commenced on that date. Under the swap, the Airport pays multiple fixed swap rates (starting at 6.466% and decreasing over the life of the swap to 1.654%). The payments are based on an amortizing notional schedule (with an initial notional amount of $189.5 million) and when added to an assumption for remarketing, liquidity costs and cost of issuance were expected to approximate the debt service of the refunded bonds at the time the swaption was entered into. The swap's variable payments are based on the SIFMA Municipal Swap Index. If the rolling 180-day average of the SIFMA Municipal Swap Index exceeds 7.00%, JP Morgan Chase has the option to terminate the swap.

As of June 30, 2016 and 2015, the swap had a notional amount of $121.4 million and $131.2 million, respectively, and the associated variable-rate bonds had a $121.4 million and $131.2 million principal amount, respectively. The bonds' variable-rate coupons are not based on an index but on remarketing performance. The bonds mature on June 15, 2025. The swap will terminate on June 15, 2025 if not previously terminated by JP Morgan Chase.

Fair Value: As of June 30, 2016 and 2015, the swap had a negative fair value of ($16.0) million and ($16.2) million, respectively. This means that if the swap terminated today, the Airport would have to pay this amount to JP Morgan Chase. The fair value of the swap was measured using the income approach and is categorized within Level 2 of the fair value hierarchy.

Risk: As of June 30, 2016, the Airport was not exposed to credit risk because the swap had a negative fair value. Should interest rates change and the fair value of the swap become positive, the Airport would be exposed to credit risk in the amount of the swap's fair value. In addition, the Airport is subject to basis risk should the relationship between SIFMA and the bonds change; if SIFMA resets at a rate below the variable bond rate, the synthetic interest rate will be greater than anticipated. The swap includes an additional termination event based on downgrades in credit ratings. The swap may be terminated by the Airport if JP Morgan's ratings fall below A- or A3, or by JP Morgan Chase if the Airport's ratings fall below BBB or Baa2. No termination event based on the Airport's ratings can occur as long as National Public Finance Guarantee Corporation (formerly MBIA) is rated at least A- or A3.

As of June 30, 2016 and 2015, the rates were:

Interest Rate Swap	Terms	June 30, 2016	June 30, 2015
Fixed payment to JPMorgan Chase	Fixed	4.11356%	4.72645%
Variable rate from JPMorgan Chase	SIFMA	-0.41000%	-0.07600%
Net interest rate swap payments		3.70356%	4.65045%
Variable rate bond coupon payments	Weekly resets	0.42000%	0.08500%
Synthetic interest rate on bonds		4.12356%	4.73545%

Swap payments and associated debt: As of June 30, 2016, debt service requirements of the variable-rate debt and net swap payments for their term, assuming current interest rates remain the same, were as follows:

Fiscal Years	Variable Rate Bonds		Interest Rate	Total
Ending June 30	Principal	Interest	Swaps Net	Interest
2017	10,700,000	509,880	4,496,120	5,006,000
2018	11,400,000	464,940	3,875,380	4,340,320
2019	12,200,000	417,060	3,164,886	3,581,946
2020	13,000,000	365,820	2,457,956	2,823,776
2021	13,700,000	311,220	1,857,456	2,168,676
2022-2025	60,400,000	644,700	2,907,632	3,552,332
Totals	$ 121,400,000	$ 2,713,620	$ 18,759,430	$ 21,473,050

8. COMMERCIAL PAPER NOTES

The Aviation Fund established a $350 million commercial paper (CP) program in January 2013 to provide funding for capital projects approved by Philadelphia International Airport's signatory airlines. CP is a short-term financing tool with a maximum maturity of 270 days. PHL's CP Program enables capital projects to be financed on an as-needed basis, which lowers the Airport's cost of borrowing and limits negative arbitrage during project construction periods. CP Notes will continue to be "rolled over" until long-term bonds are issued to refund the outstanding commercial paper. There was $189.9 million of CP notes outstanding at June 30, 2016. CP interest expense charged to PHL's Statement of Revenues, Expenses, and Changes in Fund Net Position was $618,581 and $81,845 for fiscal years ending June 30, 2016 and 2015, respectively.

As of June 30, 2016, the total outstanding balance of CP notes was $189,900,000.

Balance as of July 1, 2015	$ 167,600,000
Commercial Paper Notes Issued	668,700,000
Commercial Paper Notes Refunded	(646,400,000)
Balance as of July 1, 2016	$ 189,900,000

9. BONDS PAYABLE

General obligation (G.O.) bonds, payable out of Aviation Fund revenues, consist of bonds declared by statute to be self-sustaining from airport revenues. There are no G.O. bonds outstanding as of June 30, 2016.

In July 1998, Airport Revenue Bonds, Series 1998B in the amount of $443.7 million were issued. The proceeds of Series 1998B were used to prepay the City's fixed rental obligation under a lease with PAID ("the PAID Lease"). Under this lease, the City acquired a leasehold interest and will occupy, operate and manage certain new terminals and related improvements ("the US Airways Project Facility") constructed with funds provided by the Series 1998A PAID Airport Revenue Bonds. In June 2008, the City purchased a letter of credit from Wachovia Bank, N.A. to replace a surety policy purchased from FGIC. When FGIC was downgraded below the 'AA' category the policy no longer met the rating requirements of the Amended and Restated General Airport Revenue Bond Ordinance (the Ordinance), approved June 16, 1995. The letter of credit meets the Ordinance's rating requirements. In FY 2011, the Series 1998B bonds were partially refunded by the Airport Revenue Refunding Bonds Series 2010D, leaving a balance of $69.5 million. In FY 2012, substantially all of the remaining 1998B bonds were refunded, leaving a balance of $5,000.

In June 2005, Airport Revenue Refunding Bonds, Series 2005C in the amount of $189.5 million were issued. The proceeds of Series 2005C were used to refund $183.9 million of the 1995A Series Airport Revenue Bonds, maturing from 2006 through 2025, and to pay issuance and insurance costs on the bonds. The cash flow required by the new bonds was the same as the cash flow required by the refunded bonds at the time of the sale. JPMorgan entered into a swaption agreement with the Airport on the 1995A bonds in 2002, which agreement was exercised June 15, 2005. In December 2008, the outstanding balance of $178.6 million of Airport Revenue Refunding Bonds, Series 2005C was remarketed under an irrevocable direct pay letter of credit ("LOC") from TD Bank ("the Bank"). The LOC replaces a bond insurance policy from MBIA Insurance Corporation and a liquidity facility for the 2005C bonds provided by JP Morgan Chase Bank, N.A., pursuant to a standby bond purchase agreement, issued simultaneously with the issuance of the 2005C bonds in June 2005, and the surety policy for the sinking fund reserve account for the 2005C bonds. The LOC constitutes both a credit facility and liquidity facility under the Ordinance and the Variable Rate Securities Agreement, and the TD Bank will be the credit provider and liquidity provider under the Ordinance and the Variable Rate Securities Agreement for the 2005C bonds. The bonds will have a weekly interest rate and maturity date in 2025.

In August 2005, Airport Revenue Bonds, Series 2005A sub-series (1), (2) and (3) in the amounts of $59.8 million, $22.6 million and $42.5 million, respectively, were issued. The proceeds of Series 2005A were used to finance a portion of the cost of Airport capital projects. Sub-series (1) are serial bonds and sub-series (2) and (3) are term bonds. The Series 2005A bonds had MBIA Insurance Corporation surety policies for their sinking fund reserve requirements. Because MBIA was downgraded below the ‘AA’ category, the surety policies no longer met the requirements of the Ordinance. During FY 2009, the Aviation Fund replaced the surety policy by funding the sinking fund reserve required under the Ordinance for the 2005A bonds.

In August 2007, Airport Revenue Bonds, Series 2007A, in the amount of $172.5 million were issued. The proceeds from Series 2007A were used to finance a portion of the 2007 Project (infrastructure improvements and design of terminal building enhancements); to finance capitalized interest during the construction period; and to pay the costs of issuing and insuring the bonds with municipal bond insurance and a surety policy.

In August 2007, Airport Revenue Bonds, Refunding Series 2007B, in the amount of $82.9 million were issued. The proceeds of Series 2007B were used to refund Revenue Bonds, Series 1997B and the costs of issuing and insuring the bonds with municipal bond insurance. The refunding structure of the 2007B bonds realized a net present value savings of approximately $2.6 million or 3.22% of the principal amount of the refunded bonds.

In April 2009, Airport Revenue Bonds, Refunding Series 2009A, sub series (1) through (3) in the amount of $45.7 million were issued. Serial bonds were issued in the amount of $25.7 million with interest rates ranging from 1.5% to 5.0% maturing in 2023. Term bonds were issued in the amount of $3.9 million and $16.1 million with interest rates ranging from 5.0% to 5.375% maturing in 2024 and 2029 respectively. The gain/loss on the bonds cannot be calculated in the usual way because the refunded bonds (Series 2005B) were variable rate bonds that were subject to Alternative Minimum Tax (AMT). However the 2009A bonds were issued on a fixed rate basis and are not subject to AMT. The proceeds of Series 2009A along with other monies of the Aviation Fund were used to currently refund Airport Revenue Bonds Series 2005B, fund a deposit to the parity sinking fund reserve account in respect of the bonds, and pay the costs of issuance of the bonds. The Series 2009A bonds were issued under a financial guaranty insurance policy issued by Assured Guaranty Corp.

In November 2010, the City issued Airport Revenue Bonds, Series 2010 in the amount of $624.7 million:

- Airport Revenue Bonds, Series 2010A (non-AMT) were issued as serial and term bonds in the amount of $273.1 million. Insured serial bonds were issued in the amount of $16.5 million with interest rates ranging from 3% to 4.5% and a maturity in 2035 and uninsured serial bonds in the amount of $113.0 million with a maturity of 2030. Insured term bonds were issued in the amount of $25 million and $48 million with an interest rate of 5% and maturities in 2035 and 2040. Uninsured term bonds were issued in the amounts of $37.8 million and $32.8 million with an interest rate of 5% and maturities in 2035 and 2040. The proceeds of Series 2010A were used to finance certain capital improvements to the airport system; fund the deposits into the sinking funds; finance capitalized interest; and pay costs of issuance relating to the bonds.

- Airport Revenue Refunding Bonds, Series 2010B (non-AMT) were issued as uninsured serial bonds in the amount of $24.4 million with interest ranging from 2.0% to 5% and maturing in 2015. The proceeds of these bonds were used to refund the City's Airport Revenue Bonds, Series 1997A; fund the deposit into the sinking fund reserve; and pay costs of issuance relating to the bonds.

- Airport Revenue Refunding Bonds, Series 2010C were issued as uninsured serial bonds in the amount of $54.7 million with interest ranging from 2.0% to 5% and maturing in 2018. The proceeds of these bonds were used to partially refund the City's Airport Revenue Bonds, Series 1998A; fund the deposit into the sinking fund reserve; and pay costs of issuance relating to the bonds.

- Airport Revenue Refunding Bonds, Series 2010D were issued in the amount of $272.5 million. Insured serial bonds were issued in the amount of $1.9 million with interest ranging from 4.0% to 4.5% and maturing in 2024. Uninsured serial bonds were issued in the amount of $270.7 million with interest ranging from 2.0% to 5.25% and maturing in 2028. The proceeds of these bonds were used to partially refund the City's Airport Revenue Bonds, Series 1998B; fund the deposit into the sinking fund reserve; and pay costs of issuance relating to the bonds. Any prepayment of the 1998B bond shall be in an amount that is sufficient and used to pay a like amount of the PAID Airport Revenue Series 1998A also known as the International Terminal Bonds.

In December 2011, the City issued Airport Revenue Refunding Bond, Series 2011 in the amount of $233.8 million. The Series 2011A bonds (AMT) were issued as serial bonds in the amount of $199.0 million with interest rates ranging from 2% to 5% and maturing in 2028. The Series 2011B bonds were issued as serial bonds in the amount of $34.8 million, with interest rates ranging from 2% to 5% and maturing in 2031. The proceeds of these bonds were used to: (i) refund a portion of the International Terminal Bonds; (ii) refund all of the City's outstanding Airport Revenue Bonds, Series 2001B; and (iii) pay the issuance costs of the bonds. The proceeds from the 2011A bonds were used to refund the entire principal amount of $149.3 million for the Airport Revenue Bonds, Series 2001A. In addition, the 2011B bonds were used to refund a portion of the Airport Revenue Bond Series 1998B (outstanding aggregate principal amount of $57.1 million).

In August 2015, the City issued Airport Revenue Refunding Bond, Series 2015A in the amount of $97.8 million. The proceeds of Series 2015A were used to refund Revenue Bonds, Series 2005A and pay the costs of issuance of the Bonds. The refunding structure of the 2015A bonds realized a net present value savings of approximately $9.3 million or 8.75% of the principal amount of the refunded bonds.

The amount of debt service payable for revenue bonds to maturity is as follows:

Fiscal Years Ending June 30	Principal	Interest	Total Debt Service
2017	63,240,000	55,522,717	$ 118,762,717
2018	65,605,000	52,267,103	117,872,103
2019	59,605,000	48,807,767	108,412,767
2020	62,745,000	45,681,348	108,426,348
2021	65,910,000	42,536,062	108,446,062
2022-2026	364,575,000	162,571,326	527,146,326
2027-2031	223,310,000	81,917,482	305,227,482
2032-2036	142,320,000	40,578,950	182,898,950
2037-2040	77,395,000	9,035,000	86,430,000
Totals	$ 1,124,705,000	$ 538,917,755	$ 1,663,622,755

The early extinguishment of debt can result in a loss on refunding, representing the difference between the reacquisition price, plus or minus unamortized premium or discount, and the amount of debt extinguished. The resulting loss is amortized annually over the life of the refunded bonds and reflected in the Deferred Outflows section on the Statements of Net Position.

Total interest costs for FY 2016 were nearly $58.9 million, of which $4.9 million was capitalized and $54.0 million was recorded as non-operating expense. Total interest costs for FY 2015 were $62.7 million, of which $21.4 million was capitalized and $41.4 million was recorded as non-operating expense.

Details of the various revenue bonds included in the financial statements are reflected on the following page. Airport Revenue Bonds Series 1998B reflect the PAID outstanding balances, which are treated as conduit debt under GASB Interpretation 2. Payments on the conduit debt are guaranteed by General Airport Revenue Bonds Series 1998B.

Type of Debt	Authorized and Issued	Included in Current Liabilities	Portion Due After June 30, 2016	Total Outstanding Bonded Debt	Final Maturity	Interest Percentage Rate
Airport Revenue Bonds - Series 1998B	$ 443,700,000	-	5,000	5,000	2028	4.25 - 5.38%
Airport Revenue Bonds - Series 2005C	$ 189,500,000	10,700,000	110,700,000	121,400,000	2025	Variable Rate
Airport Revenue Bonds - Series 2007A	$ 172,470,000	4,230,000	146,780,000	151,010,000	2037	5.00 - 5.00%
Airport Revenue Bonds - Series 2007B	$ 82,915,000	4,375,000	46,785,000	51,160,000	2027	4.50 - 5.00%
Airport Revenue Bonds - Series 2009A	$ 45,715,000	2,035,000	32,930,000	34,965,000	2029	1.50 - 5.00%
Airport Revenue Bonds - Series 2010A	$ 273,065,000	5,790,000	251,310,000	257,100,000	2040	2.00-5.25%
Airport Revenue Bonds - Series 2010C	$ 54,730,000	8,570,000	8,995,000	17,565,000	2018	2.00-5.00%
Airport Revenue Bonds - Series 2010D	$ 272,475,000	16,040,000	185,755,000	201,795,000	2028	2.00-5.25%
Airport Revenue Bonds - Series 2011A	$ 199,040,000	6,985,000	161,240,000	168,225,000	2028	2.00-5.00%
Airport Revenue Bonds - Series 2011B	$ 34,790,000	1,380,000	26,440,000	27,820,000	2031	2.00-5.05%
Airport Revenue Bonds - Series 2015A	$ 97,780,000	3,135,000	90,525,000	93,660,000	2035	4.00 - 5.00%
		$ 63,240,000	$ 1,061,465,000	$ 1,124,705,000		

	Authorized and Unissued
Airport general obligation bonds	$ 62,500,000

Changes in Long-Term Debt

	Beginning Balance	Additions/ (Deletions)	Retirements/ Repayments	Ending Balance	Due Within One Year
Revenue bonds payable	$ 1,193,915,000	$ 97,780,000	$ (166,990,000)	$ 1,124,705,000	$ 63,240,000
Unamortized premium / (discount)	31,414,622	10,459,295	(5,674,831)	36,199,086	-
Total revenue bonds payable	$ 1,225,329,622	$ 108,239,295	$ (172,664,831)	$ 1,160,904,086	$ 63,240,000

10. FUND BALANCES

The following is a description of the restrictions for all net position categories of the Airport:

- *Net Investment in Capital Assets* reflects the investment in fixed assets net of accumulated depreciation and reduced by outstanding debt related to expended bond proceeds.

- *Restricted for Capital Projects* reflects the unexpended funds from bond and CP proceeds, CFCs and PFCs, which are reserved for construction of capital projects, offset by outstanding debt related to unexpended bond proceeds.

- *Restricted for Debt Service* reflects the unexpended funds from bond proceeds and PFCs, which are reserved for repayment of debt.

- *Unrestricted* reflects net position available for current and future operations.

11. DEFERRED COMPENSATION PLAN

The City offers its employees a deferred compensation plan in accordance with Internal Revenue Code section 457. As required by the Code and Pennsylvania laws in effect at June 30, 2014, the assets of the plan are held in trust for the exclusive benefit of the participants and their beneficiaries. In accordance with GASB Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans,* the Airport does not include the assets or activity of the plan in its financial statements.

12. OPERATING LEASES

<u>The Airport as a Lessor</u>
In June 2015, the City Council of Philadelphia approved a five-year Airport-Airline Use and Lease Agreement (Airline Agreement) between PHL and the airlines. The Airline Agreement began July 1, 2015, and includes options for two one-year extensions.

The Airport's other operating leases consist primarily of leases of airport facilities for retail or other aviation related matters. Most assets constructed by lessees revert to the City at the end of the lease term as per the lease. Those assets are recorded at fair value, as determined by an appraisal of the property.

The Airport's most significant non-airline lease is with MarketPlace PHL, LLC, an entity responsible for the development and management of the food and retail program throughout Philadelphia International Airport. This award-winning food and retail program consists of approximately 180 shops, restaurants, retail carts and passenger services throughout Terminals A-West through F. The lease agreement provides for MarketPlace PHL, LLC to remit rents to the City in the form of total gross concession revenues, net of the concession management fee of nine and seventy-five hundredths percent (9.75%). The monthly MAG rental payment is due before the fifth (5^{th}) day of each month and the remaining rental payment, the excess rents collected during the month greater than the MAG, is due on or before the last day of each month.

Rental income from operating leases for FY 2016 was as follows:

Minimum rentals	$ 44,389,571
Additional rentals	184,760,622
Total rental income	$ 229,150,193

Rental income from operating leases for FY 2015 was as follows:

Minimum rentals	$ 34,528,776
Additional rentals	168,278,475
Total rental income	$ 202,807,251

As of the end of FY 2016, future minimum rentals receivable under non-cancelable operating leases are as follows:

Fiscal Years Ending June 30	Amount
2017	$ 27,715,745
2018	6,652,497
2019	6,667,506
2020	6,279,513
2021	4,522,991
2022-2026	18,922,265
2027-2031	13,767,829
2032-2036	6,558,875
2037-2041	5,840,860
Total	$ 96,928,081

The separate cost and carrying amount of property held for leasing is not available.

The Airport as a Lessee

The Airport leases office space, land, and both office and operations equipment on a short-term and long-term basis. Rental expense for operating leases for FY 2016 was as follows:

Minimum rentals	$	824,924
Additional rentals		13,671,198
Total rental expense	$	14,496,122

Rental expense for operating leases for FY 2015 was as follows:

Minimum rentals	$	713,276
Additional rentals		13,800,585
Total rental expense	$	14,513,861

As of year-end, future minimum rental commitments for operating leases having initial or remaining non-cancelable lease terms of more than one year are as follows:

Fiscal Years Ending June 30		Amount
2017	$	810,655
2018		351,561
2019		199,388
2020		199,388
2021		199,388
2022-2026		996,940
2027-2031		996,940
2032-2036		996,940
2037-2041		996,940
Total	$	5,748,140

13. CONCENTRATION OF CREDIT RISK

American Airlines is the principal airline serving Philadelphia International Airport. The airline, together with its American Eagle affiliates, accounted for approximately 72.7% and 76.6% of passengers enplaned at the airport in fiscal years 2016 and 2015, respectively. Operating revenues from American Airlines and its affiliates totaled approximately $187.5 million and $164.2 million in fiscal years 2016 and 2015, respectively, which represented approximately 51.6% and 50.9% of total Airport operating revenues in fiscal years 2016 and 2015, respectively.

14. PENSION PLAN

The Airport contributes to the Municipal Pension Plan (City Plan) of the City of Philadelphia. The City maintains two single-employer defined benefit plans for its employees and several of its component units. The three other quasi-governmental agencies that participate in the City Plan are the Philadelphia Parking Authority (PPA), the Philadelphia Municipal Authority (PMA), and the Philadelphia Housing Development Corporation (PHDC). Information for the City Plan as a whole is available in the Comprehensive Annual Financial Report (CAFR) of the City of Philadelphia for the year ended June 30, 2016.

Effective with fiscal year 2015, the City implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27.* This Statement revises existing standards for measuring and reporting pension liabilities for pension plans. GASB Statement No. 68 defines a single employer as the primary government and its component units. All three quasi-governmental agencies that participate in the City Plan were determined to be component units of the City. Therefore, the City Plan meets the definition of a single-employer plan.

The note disclosures and Required Supplementary Information required by GASB Statement No. 67, *Financial Reporting for Pension Plans – an amendment of GASB Statement No. 25,* are presented in the separately issued audited financial statements of the City Plan. Copies of these financial statements may be obtained by contacting the Director of Finance of the City of Philadelphia.

Plan Administration

The Philadelphia Board of Pensions (the Pension Board) administers the City of Philadelphia Municipal Pension Fund (the Fund) – a single-employer defined benefit pension plan with a small but increasing defined contribution component, which provides pensions for all officers and employees of the City of Philadelphia (the City), as well as those of three quasi-governmental agencies (per applicable enabling legislation and contractual agreements). The Board was established by section 2-308 of the 1952 Philadelphia Home Rule Charter. Its actions in administering the Retirement System are governed by Title 22 of the Philadelphia Code.

The Board consists of nine voting members – four elected by the active members within the civil service, and the City's Controller, Solicitor, Managing Director, Personnel Director, and Director of Finance, who serves as the Chair.

Plan Membership

At July 1, 2015, the date of the most recent actuarial valuation, pension plan membership for the City as a whole consisted of the following:

Active Members	27,951
Retirees	22,245
Beneficiaries	8,566
Disabled	4,016
DROP Members	1,784
Terminated Vested	1,334
Total City Members	65,896
Annual Salaries	$1,597,848,869
Average Salary per Active Member	$57,166
Annual Retirement Allowances	$719,580,951
Average Retirement Allowance	$20,662

Contributions

Per Title 22 of the Philadelphia Code, members contribute to the Fund at various rates based on bargaining unit, uniform/non-uniform/elected/exempt status, and entry date into the System. Beginning July 1, 2015, members contributed at one of the following rates:

Employee Status	Plan 67	Plan 87	Plan 10
Uniform	6.00%	5.00% or 6.00%	5.50%
Non-Uniform	3.75%, 4.25%, 5.62%, 6.00%, or 6.50%	1.97%, 2.47%, 2.64%, 3.14%, 3.29%, 3.47%, or 4.14%	3.16%
Elected Officials	N/A	8.48%, 9.11%, 9.48%, or 10.11%	3.16%

Employer contributions are made by the City throughout each fiscal year (which ends June 30) and by three (3) quasi-governmental agencies on a quarterly basis. These contributions, determined by an annual actuarial valuation report (AVR), when combined with plan member contributions, are expected to finance the cost of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. Within the AVR, two contribution amounts are determined based upon two different sets of rules for determining the way the unfunded actuarial liability is funded.

The first method is defined in accordance with Act 205 and defines the Minimum Municipal Obligation (MMO), which is the City's minimum required contribution under Pennsylvania state law.

The second method is in accordance with the City's Funding Policy which predates the Act 205 rules and calls for contributions that are greater than the MMO until the initial unfunded liability determined in 1984 is fully funded.

Under both funding methods there are two components: the normal cost and the amortized unfunded actuarial liability. The actuarial unfunded liability is the amount of the unfunded actuarial liability that is paid each year based upon the given or defined amortization periods. The amortization periods are different under the MMO and City's Funding Policy.

<u>City's Funding Policy</u>
The initial July 1, 1985 unfunded actuarial liability (UAL) is amortized over 34 years ending June 30, 2019 with payments increasing at 3.3% per year, the assumed payroll growth. Other charges in the actuarial liability are amortized in level-dollar payments as follows:

* Actuarial gains and losses – 20 years beginning July 1, 2009. Prior gains and losses were amortized over 15 years.
* Assumptions changes – 15 years beginning July 1, 2010. Prior to July 1, 2010, assumption changes were amortized over 20 years.
* Plan changes for active members – 10 years.
* Plan changes for inactive members – 1 year.
* Plan changes mandated by the State – 20 years.

In fiscal year 2016, the City and other employers' contributions of $660.2 million was less than the actuarially determined employer contribution (ADEC) of $846.2 million. In the event that the City contributes less than the funding policy, an experience loss will be created that will be amortized in accordance with funding policy over 20 years.

The Schedule of Employer Contributions (based on the City's Funding Policy) is included as Required Supplemental Information (in the City's CAFR) and provides a 10-year presentation of employer contributions.

<u>Minimum Municipal Obligation (MMO)</u>
For the purposes of the MMO under Act 205 reflecting the fresh start amortization schedule, the July 1, 2009 UAL was "fresh started" to be amortized over 30 years ending June 30, 2039. This is a level dollar amortization of the UAL. All future amortization periods will follow the City's Funding Policies as outlined above. In fiscal year 2016, the City and other employers' contributions of $660.2 million exceeded the Minimum Municipal Obligation of $598.5 million.

The Schedule of Employer Contributions (based on the MMO Fund Policy) is included as Required Supplemental Information (in the City's CAFR) and provides a 10-year presentation of employer contributions.

Benefits

The Fund provides retirement, disability, and death benefits according to the provisions of Title 22 of the Philadelphia Code. These provisions prescribe retirement benefit calculations, vesting thresholds, and minimum retirement ages that vary based on bargaining unit, uniform/non-uniform status, and entry date into the System.

Non-uniform employees may retire at either age 55 with up to 80% of average final compensation (AFC) or age 60 with up to 100% or 25% of AFC, depending on entry date into the System. Uniform employees may retire at either age 45 with up to 100% of AFC or age 50 with up to either 100% or 35% of AFC, depending on entry date into the System. Survivorship selections may result in an actuarial reduction to the calculated benefit.

Members may qualify for service-connected disability benefits regardless of length of service. Service-connected disability benefits are equal to 70% of a member's final rate of pay, and are payable immediately without an actuarial reduction. These applications require approval by the Board.

Eligibility to apply for non-service-connected disability benefits varies by bargaining unit and uniform/non-uniform status. Non-service-connected disability benefits are determined in the same manner as retirement benefits, and are payable immediately.

Service-connected death benefits are payable to:

1) surviving spouse/life partner at 60% of final rate of pay plus up to 2 children under age 18 at 10% each of final rate of pay (maximum payout: 80%);
2) if no surviving spouse/life partner, up to 3 children under age 18 at 25% each of final rate of pay (maximum payout 75%); or
3) if no surviving spouse/life partner or children under age 18, up to 2 surviving parents at 15% each of final rate of pay (maximum payout 30%).

Non-service-connected deaths are payable as a lump sum payment, unless the deceased was either vested or had reached minimum retirement age for their plan, in which case the beneficiary(ies) may instead select a lifetime monthly benefit, payable immediately with an actuarial reduction.

A Pension Adjustment Fund (PAF) is funded with 50% of the excess earnings that are between 1% and 6% above the actuarial assumed earnings rate. Each year, within sixty days of the end of the fiscal year, by majority vote of its members, the Board of Directors of the Fund (the Board) shall consider whether sufficient funds have accumulated in the PAF to support an enhanced benefit distribution (which may include, but is not limited to, a lump sum bonus payment, monthly pension payment increases, ad hoc cost-of-living adjustments, continuous cost-of-living adjustments, or some other form of increase in benefits as determined by the Board) to retirees, their beneficiaries, and their survivors. As of July 1, 2015, the date of the most recent actuarial valuation, there was $38,198,762 in the PAF and the Board voted to make PAF distributions of $30,004,292 during the fiscal year ended June 30, 2016.

The Fund includes a Deferred Retirement Option Plan (DROP Plan). The DROP Plan allows a participant to declare that they will retire within 4 years. During the 4-year period, the City will make no further contributions for the participant. The participant would continue to work and to receive their salary; however, any increases would not be counted towards their pension benefit. During the 4-year period the individual participates in the DROP Plan, their pension benefits will be paid into an escrow account in the participant's name. After the 4-year period, the participant would begin to receive their pension benefits and the amount that has been accumulated in the escrow account in a lump sum payment. The balance in the DROP Plan as of June 30, 2016 is $113.9 million.

Investments

The Pension Board's Investment Policy Statement provides, in part:

The overall investment objectives and goals should be achieved by use of a diversified portfolio, with safety of principal a primary emphasis. The portfolio policy should employ flexibility by prudent diversification into various asset classes based upon the relative expected risk-reward relationship of the asset classes and the expected correlation of their returns.

The Fund seeks an annual total rate of return of not less than 7.75% over a full market cycle. It is anticipated that this return standard should enable the Fund to meet its actuarially assumed earnings projection (currently 7.75%) over a market cycle. The investment return assumption was reduced by the Board from 7.80% to 7.75%. The Fund's investment program will pursue its stated total rate of return by a combination of income and appreciation, relying upon neither exclusively in evaluating a prospective investment for the Fund.

All investments are made only upon recommendation of the Fund's Investment Committee and approval by a majority of the Board. In order to document and communicate the objectives, restrictions, and guidelines for the Fund's investment staff and investments, a continuously updated Investment Policy Statement will be maintained. The Investment Policy Statement will be updated (and reaffirmed) each year at the January Board meeting.

The following was the Board's approved asset allocation policy as of June 30, 2016:

Asset Class	Target Allocation
US Equity	29.8%
Fixed Income - Investment Grade	19.0%
Non-US Equity - Developed	16.8%
Private Equity	9.1%
Fixed Income - Non-Investment Grade	7.5%
Non-US Equity - Emerging	5.2%
Hedge Funds	3.7%
Real Assets - Private Real Estate	2.6%
Private Debt	1.9%
Real Assets - Master Limited Partnerships	1.9%
Real Assets - Public Real Estate	1.4%
Cash & Other	1.1%
Total	100.0%

For the year ended June 30, 2016, the annual money-weighted rate of rate of return on pension plan investments, net of pension plan investment expense, was -3.20%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for changing amounts actually invested.

Net Pension Liability

The components of the net pension liability as of June 30, 2016 were as follows:

Total Pension Liability	$ (10,877,209,958)
Plan Fiduciary Net Position	4,357,975,073
Net Pension Liability	$ (6,519,234,885)

Plan Fiduciary Net Position as a Percentage of the Total Pension Liability: 40.1%

The total pension liability was determined by an actuarial valuation as of June 30, 2015 and was rolled forward to June 30, 2016. The June 30, 2015 valuation used the following actuarial assumptions, applied to all periods, including the measurement period:

Actuarial Cost Method:	Entry Age Normal
Investment Rate of Return:	7.75% compounded annually, net of expenses
Salary Increases:	Age-based table

* The investment return assumption was changed from 7.80% from the prior year valuation to 7.75% for the current year valuation.
* To recognize the expense of the benefits payable under the Pension Adjustment Fund, the actuarial liabilities have been increased 0.54%. This estimate is based on the statistical average expected value of benefits.

* The mortality rates were based on the RP 2000 Healthy Annuitant Mortality Table for males and females with adjustments for mortality improvements using Scale AA with a five year set-back for Municipal males and females and a two year set-back for Police and Fire males and females.

The measurement date for the net pension liability is June 30, 2016. Measurements are based on the fair value of assets as of June 30, 2016 and the Total Pension Liability (TPL) as of the valuation date, July 1, 2015 updated to June 30, 2016. The roll-forward procedure included the addition of service cost and interest cost offset by actual benefit payments. There were actuarial experience losses during the year of approximately $152 million which includes the loss due to the Pension Adjustment Fund payment of $30 million. In addition, the Board adopted recommended assumption changes, including:

* Decrease in the expected long-term return on assets from 7.80% to 7.75%
* Increase the load on valuation pay from 4% to 6% for Police participants to account for stress pay and for Fire participants to account for premium pay.

The combined effect of these assumption changes increased the TPL by approximately $85 million as a year-end value.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2016 (see discussion of pension plan's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Real Assets - Private Real Estate	12.70%
Private Equity	10.95%
US Equity	7.90%
Real Assets - Master Limited Partnerships	7.80%
Non-US Equity - Developed	7.60%
ACWI Ex-US	7.30%
Non-US Equity - Emerging	7.20%
Real Assets - Real Estate Investment Trusts	7.20%
Emerging Market Debt	5.80%
Hedge Funds	5.50%
High Yield	5.20%
Bank Loans	4.70%
Universal	3.20%
Broad Fixed Income	2.80%
Opportunistic Credit	2.05%
Global Aggregate	1.70%
91 Day T-bills	0.20%

The above table reflects the expected (7-10 year) real rate of return for each major asset class. The expected inflation rate is projected at 0.84% for the same time period.

The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and the participating governmental entity contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods on projected benefit payment to determine the total pension liability.

The following table presents the Net Pension Liability (NPL) of the System, calculated using the discount rate of 7.75%, as well as what the System's NPL would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

Sensitivity of Collective Net Pension Liability to changes in Discount Rate

	1% Decrease 6.75%	Discount Rate 7.75%	1% Increase 8.75%
Total Pension Liability	($11,968,855,837)	($10,877,209,958)	($9,946,862,734)
Plan Fiduciary Net Position	$4,357,975,073	$4,357,975,073	$4,357,975,073
Collective Net Pension Liability	($7,610,880,764)	($6,519,234,885)	($5,588,887,661)
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	-36.4%	-40.1%	-43.8%

The following table shows the changes in TPL, the plan fiduciary net position (FNP, or the fair value of the System assets), and the NPL during the measurement period ending on June 30, 2016.

Change in Collective Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability	**Plan Fiduciary Net Position**	**Net Pension Liability**
Balances at June 30, 2015	$ (10,578,457,204)	$ (4,674,252,000)	$ (5,904,205,204)
Changes for the year:			
Service cost	(148,370,075)	-	(148,370,075)
Interest	(802,659,333)	-	(802,659,333)
Changes in benefits	-	-	-
Differences between expected and actual experience	(151,918,733)	-	(151,918,733)
Changes of assumptions	(85,147,737)	-	(85,147,737)
Contributions - employer	-	(660,246,511)	660,246,511
Contributions - member	-	(67,055,003)	67,055,003
Net investment income	-	145,681,480	(145,681,480)
Benefit payments	889,343,124	889,343,124	-
Administrative expense	-	8,553,837	(8,553,837)
Net Changes	(298,752,754)	316,276,927	(615,029,681)
Balances at June 30, 2016	$ (10,877,209,958)	$ (4,357,975,073)	$ (6,519,234,885)

GASB Statement No. 68 requires that the proportionate share for each employer be determined based upon the "employer's projected long-term contribution effort to the pension … as compared to the total long-term contribution effort to all employers." In addition to the City, three governmental agencies currently participate in the System, PHDC, PMA, and PPA. The method of allocation is based on the ratio of quasi-agency contributions in proportion to total contributions by plan.

Derivative Instruments

In 2010, the City of Philadelphia adopted GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, which addresses the recognition, measurement, and disclosure of information regarding derivative instruments entered into by state and local governments. Derivative instruments such as swaps, options, futures and forwards are often complex financial arrangements used by governments to manage specific risks or to make investments. By entering into these arrangements, governments receive and make payments based on market prices without actually entering into the related financial or commodity transactions. Derivative instruments associated with changing financial and commodity prices result in changing cash flows and fair values that can be used as effective risk management or investment tools. Derivative instruments, however, also can expose governments to significant risks and liabilities.

The City of Philadelphia Municipal Pension Fund (the Fund) enters into a variety of financial contracts which include options, futures, forwards and swap agreements to gain exposure to certain sectors of the equity and fixed income markets; collateralized mortgage obligations (CMOs); other forward contracts; and U.S. Treasury strips. The contracts are used primarily to enhance performance and reduce volatility of the portfolio. The Fund is exposed to credit risk in the event of non-performance by counterparties to financial instruments. The Fund generally enters into transactions only with high quality institutions. Legal risk is mitigated through selection of executing brokers and review of all documentation. The Fund is exposed to market risk which is the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed in accordance with risk limits set by senior management, through buying or selling instruments or entering into offsetting positions. The notional or contractual amounts of derivatives indicate the extent of the Fund's involvement in the various types and uses of derivative financial instruments and do not measure the Fund's exposure to credit or market risks and do not necessarily represent amounts exchanged by the parties. The amounts exchanged are determined by reference to the notional amounts and the other terms of the derivatives.

The following table summarizes the aggregate notional or contractual amounts for the Fund's derivative financial instruments at June 30, 2016 in addition to the fair value and the change in the fair value of derivatives.

List of Derivatives Aggregated by Investment Type

	Changes in Fair Value		Fair Value at June 30, 2016		
	Classification	Amount	Classification	Amount	Notional
Investment Derivatives					
Forward Currency Contracts	Net appreciation / (depreciation) in investments	$(1,280,269)	Accrued interest and other receivables	$(588,465)	$ 105,832,201
Futures	Net appreciation / (depreciation) in investments	(93,192)	Accrued expenses	(141,531)	113
	Grand Totals	$(1,373,461)		$(729,996)	$ 105,832,314

A Derivatives Policy Statement identifies and allows common derivative investments and strategies which are consistent with the Investment Policy Statement of the City of Philadelphia Municipal Pension Fund. The guidelines identify transaction-level and portfolio-level risk control procedures and documentation requirements. Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have credit ratings available from nationally recognized rating institutions such as Fitch, Moody's and S&P.

The details of other risks and financial instruments in which the Fund is involved are described below:

Credit Risk: The Fund is exposed to credit risk on hedging derivative instruments that are in asset positions. To minimize its exposure to loss related to credit risk, it is the Fund's policy to require counterparty collateral posting provisions in its non-exchange-traded hedging derivative instruments. These terms require full collateralization of the fair value of hedging derivative instruments in asset positions (net of the effect of applicable netting arrangements) should the counterparty's credit rating fall below AA as issued by Fitch Ratings and Standard & Poor's or Aa as issued by Moody's Investors Service. Collateral posted is to be in the form of U.S. Treasury securities held by a third-party custodian. The City has never failed to access collateral when required.

It is the Fund's policy to enter into netting arrangements whenever it has entered into more than one derivative instrument transaction with counterparty. Under the terms of these arrangements, should one party become insolvent or otherwise default on its obligations, close-out netting provisions permit the non-defaulting party to accelerate and terminate all outstanding transactions and net the transactions' fair values so that a single sum will be owed by, or owed to, the non-defaulting party.

Swap Agreements provide for periodic payments at predetermined future dates between parties based on the change in value of underlying securities, indexes or interest rates. Under fixed interest rate type swap arrangements, the Fund receives the fixed interest rate on certain equity or debt securities or indexes in exchange for a fixed charge. There were not any total receive-fixed interest rate swaps received as of June 30, 2016. On its pay-variable, receive-fixed interest rate swap, as LIBOR increases, the Fund's net payment on the swap increases. Alternatively, on its pay-fixed, receive-variable interest rate swap, as LIBOR or the SIFMA swap index decreases, the Fund's net payment on the swap increases.

Futures Contracts are types of contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined date and price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that counterparty will not pay and generally requires margin payments to minimize such risk. In addition, the Fund enters into short sales, sales of securities it does not presently own, to neutralize the market risk of certain equity positions. Initial margin requirements on futures contracts and collateral for short sales are provided by investment securities pledged as collateral and by cash held by various brokers. Although the Fund has the right to access individual pledged securities, it must maintain the amount pledged by substituting other securities for those accessed. The realized loss from futures contracts was ($425,537). The Fund has cash collateral of $971,025 which was valued using a matrix pricing model (Level 2 inputs).

Forward Contracts: The Fund is exposed to basis risk on its forward contracts because the expected funds purchase being hedged will price based on a pricing point different than the pricing point at which the forward contract is expected to settle. The realized gain from forward contracts was $944,312.

Termination Risk: The Fund or its counterparties may terminate a derivative instrument if the other party fails to perform under the terms of the contract. In addition, the Fund is exposed to termination risk on its receive-fixed interest rate swap. The Fund is exposed to termination risk on its rate cap because the counterparty has the option to terminate the contract if the SIFMA swap index exceeds 12%. If at the time of termination, a hedging derivative instrument is in a liability position, the City would be liable to the counterparty for a payment equal to the liability, subject to netting arrangements.

Rollover Risk: The Fund is exposed to rollover risk on hedging derivative instruments that are hedges of debt that mature or may be terminated prior to maturity of the hedged debt. When these hedging derivative instruments terminate, or in the case of a termination option, if the counterparty exercises its option, the Fund will be re-exposed to the risks being hedged by the hedging derivative instrument.

Summary of Significant Accounting Policies
Financial statements of the Fund are prepared using the accrual basis of accounting. Employer contributions are recognized as revenue when due, pursuant to formal commitments, as well as statutory or contractual requirements.

The Plan reports investments at their fair value in the statement of fiduciary net position. Unrealized gains and losses are included in the Statement of Changes in Fiduciary Net Position. Securities traded on national or international exchanges are recorded at the last reported sales price at current exchange rates.

See the City's CAFR for further details on the Plan's financials.

15. ACCUMULATED UNPAID SICK LEAVE

The Airport follows City policies regarding the accumulation of sick leave. City employees may accumulate unused sick leave to predetermined balances. Non-uniformed employees (upon retirement only) and uniformed employees (upon retirement or in case of death while on active duty) are paid varying amounts ranging from 25% to 50% of unused sick time, not to exceed predetermined amounts. Employees who separate for any reason other than indicated above forfeit their entire sick leave. The City budgets for and charges the cost of sick leave as it is taken.

16. OTHER POSTEMPLOYMENT BENEFITS (OPEB)

The following information is provided for the City as a whole because discrete information is not available for the Airport. Please see the CAFR of the City of Philadelphia for required supplemental information.

Plan Description: The City of Philadelphia self-administers a single-employer, defined benefit plan and provides health care for five years subsequent to separation for eligible retirees. Certain union represented employees may defer their coverage until a later date but the amount that the City pays for their health care is limited to the amount that the City would have paid at the date of their retirement. The City also provides lifetime insurance coverage for all eligible retirees. Firefighters are entitled to $7,500 coverage and all other employees receive $6,000 in coverage. The plan does not issue stand-alone financial statements, and the accounting for the plan is reported within the financial statements of the City of Philadelphia.

Funding Policy: The City's funding policy is to pay the net expected benefits for the current retirees. To provide health care coverage, the City pays a negotiated monthly premium for retirees covered by union contracts and is self-insured for non-union employees. For fiscal years 2016 and 2015, the City paid $107.2 million and $95.3 million, respectively, for retiree healthcare.

Annual OPEB Cost and Net OPEB Obligation: The City's annual other postemployment benefit (OPEB) expense is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding, which if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities over a period not to exceed thirty (30) years. The following table shows the components of the City's annual OPEB cost for the last two fiscal years, the amount actually contributed to the plan and changes in the net OPEB obligation:

(Amounts in Thousands of USD)

	June 30, 2016	June 30, 2015
Annual required contribution	$ 136,268	$ 132,092
Interest on net OPEB obligation	11,317	9,713
Adjustment to ARC	(10,197)	(8,752)
Annual OPEB cost	137,388	133,053
Payments made	(107,200)	(95,300)
Increase in net OPEB obligation	30,188	37,753
Net OPEB obligation – beginning of year	266,286	228,533
Net OPEB obligation – end of year	$ 296,474	$ 266,286

The City of Philadelphia's annual OPEB cost, the percentage of annual OPEB cost contributed to the Plan, and the net OPEB obligation for the fiscal year ended June 30, 2016 was as follows:

(Amounts in Thousands of USD)

Fiscal Years Ending June 30	Annual OPEB Cost	Percentage of Annual OPEB Contributed	Net OPEB Obligation
2014	$ 129,318	52%	$ 228,533
2015	$ 133,052	72%	$ 266,286
2016	$ 137,388	78%	$ 296,474

Funded Status and Funding Progress: As of July 1, 2015, the most recent actuarial valuation date, the City is funding OPEB on a pay-as-you-go basis and accordingly, the unfunded actuarial accrued liability (UAAL) for benefits was $1.77 billion. The covered annual payroll was $1.54 billion and the ratio of the UAAL to the covered payroll was 114.8%.

The required schedule of funding progress immediately following the City of Philadelphia CAFR's notes to the financial statements presents multi-year trend information about whether the actuarial value of the plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

The projections of future benefit payments for an ongoing plan obligation involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Amounts determined regarding the funded status of the obligation and the contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Actuarial Methods and Assumptions: Projections of costs for financial reporting purposes are based on the types of benefits provided under the terms of the substantive plan at the time of each valuation and on the pattern of sharing costs between the employer and the plan members to that point.

Costs were determined according to the individual entry age actuarial cost method with the attribution period ending at each decrement age. This is consistent with the cost method used for the City of Philadelphia Municipal Retirement System. The City uses a level percent open approach as its method of amortization. Unfunded liabilities are funded over a 30-year period as a level percentage of payroll, which is assumed to increase at a compound annual rate of 4.25% per year. The current plan incorporates the following assumptions: a 3.30% Rate of Salary Increases; and, a 4.00% Ultimate Rate of Medical Inflation.

17. RISK MANAGEMENT

The Airport is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Airport is self-insured for Workers' Compensation and Unemployment Compensation and insured through insurance carriers for other coverage.

The City covers all claim settlements and judgments, except for those discussed above, out of the resources of the fund associated with the claim. Claims expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. These losses include: an estimate of claims that have been incurred but not reported; the effects of specific, incremental claims adjustment expenditures, salvage and subrogation; and unallocated claims adjustment expenditures.

At June 30, the amount of these liabilities was $350.3 million for the Primary Government. This liability is the City's best estimate based on available information. Changes in the reported liability since June 30, 2014 resulted from the following:

(Amounts in Millions of USD)

Fiscal Years Ending June 30	Beginning Liability	Current Year Claims and Changes in Estimates	Claim Payments	Ending Liability
2014	$ 356.1	$ 244.0	$ (250.8)	$ 349.3
2015	$ 349.3	$ 296.0	$ (291.7)	$ 353.6
2016	$ 353.6	$ 216.2	$ (219.5)	$ 350.3

The City's Unemployment Compensation and Workers' Compensation coverages are provided through its General Fund. Unemployment Compensation and Workers' Compensation coverages are funded by a pro-rata charge to the various funds. Payments for fiscal years 2016 and 2015 were $2.8 million and $3.1 million for Unemployment Compensation claims and $65.3 million and $63.1 million for Workers' Compensation claims, respectively.

The City's estimated outstanding workers' compensation liabilities are $271.5 million discounted at 3.50%. On an undiscounted basis, these liabilities total $353.1 million. These liabilities include provisions for indemnity, medical and allocated loss adjustment expense (ALAE). Excluding the ALAE, the respective liabilities for indemnity and medical payments relating to workers compensation total $245.8 million (discounted) and $321.5 million (undiscounted). The Airport's accrued liability for workers' compensation was $5.4 million and $5.5 million at June 30, 2016 and 2015, respectively. Further discrete information is not available for the Airport.

During the last five (5) fiscal years, no claim settlements have exceeded the level of insurance coverage for operations using third party carriers. None of the City's insured losses have been settled with the purchase of annuity contracts.

18. COMMITMENTS

The Airport had commitments of approximately $29.6 million and $27.6 million for operating expenses and $155.6 million and $132.4 million for capital assets and improvements for fiscal years 2016 and 2015, respectively. The Airport expects to fund these commitments through operating revenue and through capital grants, bond proceeds, and passenger facility charges.

19. CONTINGENCIES

Claims Litigation

Henderson Inverse Condemnation: In early September 2016, a Petition for the Appointment of a Board of View pursuant to the Pennsylvania Eminent Domain Code, 26 Pa. C. Section 502(c), was filed in Delaware County against the City by numerous Henderson related entities and trusts (the "Sellers"). The Petition alleges that the City effected a de facto taking of the Henderson properties (the "Property"), which Property is proximate to Philadelphia International Airport and located in Tinicum Township, Delaware County. The City desires to acquire the Property for Airport purposes and had numerous discussions with representatives for the Sellers. In July 2016, the City made an offer for $70 million. The City received no response. The City will likely file its own de jure taking in the first quarter of 2017.

For the Henderson Property, the City will need the cooperation of Tinicum Township or Delaware County to take it by eminent domain. While Tinicum has agreed to not withhold its consent for the City to take certain properties, the City has not yet requested that consent. While there are various estimates, the number of acres involved, the parcel is approximately, 135+/- acres (Henderson claims in excess of 144 acres). The property was included in the City's FAA-approved Master Plan for the expansion of the Airport. It is one of several privately held properties identified in the Master Plan. The City has been successful in purchasing several of these.

The City is represented by outside counsel, High Swartz, and the City has filed Preliminary Objections to the Petition. Henderson has responded and there will likely be a hearing on the Preliminary Objections. The parties are also embroiled in a variety of issues which will undoubtedly generate significant attorney's fees, (most significantly, massive discovery requests, which if not narrowed will require the City to produce hundreds of thousands of pages) two issues are at the core of what is in dispute: 1) when is the effective date of the taking (delay damages accrue from this date at a very high rate of interest); and 2) what is the value of the Property. The Hendersons have valued the Property at $180 M and the City's most recent appraisal (2013) values the Property at between $40 M and $50 M. An additional appraisal is being undertaken by the City.

An ordinance was introduced in to City Council on February 9, 2017 seeking authorization to acquire the Property by amicable negotiations or condemnation.

20. SUBSEQUENT EVENTS

- The Pennsylvania General Assembly temporarily authorized TNC operations in the City of Philadelphia via a budget bill during the summer of 2016. In July, the Airport negotiated temporary license agreements with two national TNCs. These temporary agreements expired on September 30, 2016. The Pennsylvania General Assembly passed a comprehensive bill addressing TNCs across the Commonwealth in October. The bill provided that the Airport may adopt contracts, licenses, and regulations relating to the duties and responsibilities on Airport property of TNCs, including the imposition of reasonable fees. The Airport thereafter negotiated long-term license agreements with two TNCs to allow them to operate at the Airport. Both the temporary and long-term license agreements provide that the TNCs pay per-trip fees to the Airport based on the number of Airport passenger drop offs and pick-ups.

- In July 2016, the City of Philadelphia acquired a 2.0-acre parcel of property adjacent to the Airport. The property consists of a one story office and warehouse building, totaling 30,078 square feet, as well as an exterior yard and surface parking lots.

- In November 2016, the City of Philadelphia acquired two segments of a public roadway adjacent to the Airport totaling approximately 8.5 acres and is leasing three segments totaling approximately 21 acres for 50 years, with an option to purchase after 20 years.

- In December 2016, the City of Philadelphia acquired a 3.4-acre parcel of property adjacent to the Airport. The property consists of a one story office and warehouse building, totaling nearly 40,750 square feet, as well as a surface parking lot.

PHL PHILADELPHIA INTERNATIONAL AIRPORT

REQUIRED SUPPLEMENTARY INFORMATION

CITY OF PHILADELPHIA
AVIATION FUND
Reconciliation of Fund Balance (Legally Enacted Basis) to Net Position (GAAP Basis)

	Fiscal Year 2016	Fiscal Year 2015	Percentage Increase (Decrease)
Fund balance, legal basis	$ 71,416,143	$ 28,348,097	151.9%
Add assets not included in legal basis:			
Current assets	28,614,942	34,902,963	(18.0)%
Fixed assets, net of depreciation	1,990,632,894	1,948,872,575	2.1%
Restricted assets	410,464,884	448,305,717	(8.4)%
	2,429,712,720	2,432,081,255	(0.1)%
Deduct liabilities not included in legal basis:			
Construction accounts payable	(38,430,923)	(51,033,985)	(24.7)%
Current liabilities	(205,881,330)	(172,108,128)	19.6%
Bonds payable	(1,155,398,488)	(1,218,750,392)	(5.2)%
Other long-term liabilities	(254,952,115)	(233,115,224)	9.4%
	(1,654,662,856)	(1,675,007,729)	(1.2)%
Add (deduct) fund balance accounts included in legal basis:			
Reserve for encumbrance, current	29,466,497	26,246,448	12.3%
Reserve for encumbrance, prior	(10,642,918)	(8,335,370)	27.7%
Reserve for collectible accounts	928,278	928,278	0.0%
	19,751,857	18,839,356	4.8%
Net position - GAAP basis	$ 866,217,864	$ 804,260,979	7.7%

CITY OF PHILADELPHIA
AVIATION FUND
Budgetary Comparison Schedule
For the Fiscal Year Ended June 30, 2016
(Amounts in thousands)

	Budgeted Amounts			Final Budget to Actual Positive (Negative)
	Original	Final	Actual	
Revenues				
Locally Generated Non-Tax Revenue	$428,816	$410,956	$391,660	($19,296)
Revenue from Other Governments	4,500	4,500	2,137	(2,363)
Revenue from Other Funds	2,500	2,500	1,158	(1,342)
Total Revenues	435,816	417,956	394,955	(23,001)
Expenditures and Encumbrances				
Personal Services	71,874	71,874	66,544	5,330
Pension Contributions	31,300	33,535	33,515	20
Other Employee Benefits	25,894	23,660	19,476	4,184
Sub-Total Employee Compensation	129,068	129,069	119,535	9,534
Purchase of Services	137,169	137,169	107,469	29,700
Materials and Supplies	10,361	10,346	6,714	3,632
Equipment	8,940	8,954	2,775	6,179
Contributions, Indemnities and Taxes	6,717	6,717	1,964	4,753
Debt Service	123,505	123,505	117,282	6,223
Payments to Other Funds	24,623	24,623	7,539	17,084
Advances, Subsidies, Miscellaneous	-	-	-	-
Total Expenditures and Encumbrances	440,383	440,383	363,278	77,105
Operating Surplus (Deficit) for the Year	(4,567)	(22,427)	31,677	54,104
Fund Balance Available for Appropriation, July 1, 2015	27,410	28,348	28,348	-
Operations in Respect to Prior Fiscal Years				
Commitments Cancelled - Net	17,000	17,000	11,206	(5,794)
Adjusted Fund Balance, July 1, 2015	44,410	45,348	39,554	(5,794)
Fund Balance Available for Appropriation, June 30, 2016	$39,843	$22,921	$71,231	$48,310

APPENDIX III

THE CITY OF PHILADELPHIA GOVERNMENT AND FINANCIAL INFORMATION

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THE GOVERNMENT OF THE CITY OF PHILADELPHIA

Introduction

The City of Philadelphia (the "City" or "Philadelphia") is located along the southeastern border of the Commonwealth of Pennsylvania (the "Commonwealth" or "Pennsylvania"). The City is the largest city in the Commonwealth and the sixth largest city in the United States with approximately 1.57 million residents (based on 2016 estimates). The City is also the center of the United States' seventh largest metropolitan statistical area, which is an 11-county area encompassing the City, Camden, NJ, and Wilmington, DE and represents approximately 6.07 million residents (based on 2016 estimates).

The City benefits from its strategic geographical location, relative affordability, cultural and recreational amenities, and its growing strength in key industries. The City is a business and personal services center with strengths in professional services, such as insurance, law, finance, healthcare and higher education, and leisure and hospitality. The cost of living in the City is relatively moderate compared to other major metropolitan areas in the northeast United States. In addition, the City, as one of the country's education centers, offers the business community a large and diverse labor pool.

The University of Pennsylvania, Temple University, Drexel University, St. Joseph's University, La Salle University, and Community College of Philadelphia are certain of the well-known institutions of higher education located in the City. There are also a number of other well-known colleges and universities located near the City, notably including Villanova University, Bryn Mawr College, Haverford College, Swarthmore College, Lincoln University, and the Camden Campus of Rutgers University, among others.

The City is a center for health, education, research and science facilities. In the City, there are more than 30 hospitals, including the Children's Hospital of Philadelphia, Hospital of the University of Pennsylvania, Hahnemann University Hospital, Einstein Medical Center-Philadelphia, and Temple University Hospital, among others, and schools of medicine, dentistry, pharmacy, optometry, podiatry, and veterinary medicine.

Tourism is important to the City and is driven by the City's extraordinary historic and cultural assets. The City's Historic District includes Independence Hall, the Liberty Bell, Carpenters' Hall, the Betsy Ross House, and Elfreth's Alley, the nation's oldest residential street. The Parkway District includes the Philadelphia Museum of Art, the Barnes Foundation, and the Rodin Museum. The Avenue of the Arts, located along a mile-long section of South Broad Street between City Hall and Washington Avenue, includes the Kimmel Center, the Academy of Music, and other performing arts venues. All of the foregoing are key tourist attractions in the City.

History and Organization

The City was incorporated in 1789 by an Act of the General Assembly of the Commonwealth (the "General Assembly") (predecessors of the City under charters granted by William Penn in his capacity as proprietor of the colony of Pennsylvania may date to as early as 1682). In 1854, the General Assembly, by an act commonly referred to as the Consolidation Act: (i) made the City's boundaries coterminous with the boundaries of Philadelphia County (the same boundaries that exist today) (the "County"); (ii) abolished all governments within these boundaries other than the City and the County; and (iii) consolidated the legislative functions of the City and the County. Article 9, Section 13 of the Pennsylvania Constitution abolished all county offices in the City, provides that the City performs all functions of county government, and states that laws applicable to counties apply to the City.

Since 1952, the City has been governed under a Home Rule Charter authorized by the General Assembly (First Class City Home Rule Act, Act of April 21, 1949, P.L. 665, Section 17) and adopted by the voters of the City (as amended and supplemented, the "City Charter"). The City Charter provides, among other things, for the election, organization, powers and duties of the legislative branch (the "City Council") and the executive and administrative branch, as well as the basic rules governing the City's fiscal and budgetary matters, contracts, procurement, property, and records. Under Article XII of the City Charter, the School District of Philadelphia (the "School District") operates as a separate and independent home rule school district. Certain other constitutional provisions and Commonwealth statutes continue to govern various aspects of the City's affairs, notwithstanding the broad grant of powers of local self-government in relation to municipal functions set forth in the First Class City Home Rule Act.

Under the City Charter, there are two principal governmental entities in the City: (i) the City, which performs municipal and county functions; and (ii) the School District, which has boundaries coterminous with the City and responsibility for all public primary and secondary education.

The court system in the City, consisting of Common Pleas and Municipal Courts, is part of the Commonwealth judicial system. Although judges are paid by the Commonwealth, most other court costs are paid by the City, with partial reimbursement from the Commonwealth.

Elected and Appointed Officials

The Mayor is elected for a term of four years and is eligible to be elected for no more than two successive terms. Each of the seventeen members of City Council is also elected for a four-year term, which runs concurrently with that of the Mayor. There is no limitation on the number of terms that may be served by members of City Council. Of the members of City Council, ten are elected from districts and seven are elected at-large. No more than five of the seven at-large candidates for City Council may be nominated by any one party or political body. The District Attorney and the City Controller are elected at the mid-point of the terms of the Mayor and City Council.

The City Controller's responsibilities derive from the City Charter, various City ordinances and state and federal statutes, and contractual arrangements with auditees. The City Controller must follow Generally Accepted Government Auditing Standards, established by the federal Government Accountability Office (formerly known as the General Accounting Office), and Generally Accepted Auditing Standards, promulgated by the American Institute of Certified Public Accountants.

The City Controller post-audits and reports on the City's and the School District's Comprehensive Annual Financial Reports ("CAFRs"), federal assistance received by the City, and the performance of City departments. The City Controller also conducts a pre-audit program of City expenditure documents required to be submitted for approval, such as invoices, payment vouchers, purchase orders and contracts. Documents are selected for audit by category and statistical basis. The Pre-Audit Division verifies that expenditures are authorized and accurate in accordance with the City Charter and other pertinent legal and contractual requirements before any moneys are paid by the City Treasurer. The Pre-Audit Technical Unit, consisting of auditing and engineering staff, inspects and audits capital project design, construction and related expenditures. Other responsibilities of the City Controller include investigation of allegations of fraud, preparation of economic reports, certification of the City's debt capacity and the capital nature and useful life of the capital projects, and opining to the Pennsylvania Intergovernmental Cooperation Authority ("PICA") on the reasonableness of the assumptions and estimates in the City's five-year financial plans.

Under the City Charter, the principal officers of the City's government are the Managing Director of the City (the "Managing Director"), the Director of Finance of the City (the "Director of Finance"), the City Solicitor (the "City Solicitor"), the Director of Commerce (the "Director of Commerce"), the City Representative (the "City Representative"), and the Director of Planning and Development (the "Director of Planning and Development"). Under the City Charter, the Mayor appoints the Managing Director, the Director of Finance, the Director of Commerce, the City Representative, and the Director of Planning and Development. The Mayor, with the advice and consent of a majority of City Council, also appoints the City Solicitor.

The Managing Director, in coordination with the senior officials of City departments and agencies, is responsible for supervising the operating departments and agencies of the City that render the City's various municipal services. The Director of Commerce is charged with the responsibility of promoting and developing commerce and industry. The City Representative is the Ceremonial Representative of the City and especially of the Mayor. The City Representative is charged with the responsibility of giving wide publicity to any items of interest reflecting the activities of the City and its inhabitants, and for the marketing and promotion of the image of the City. The Director of Planning and Development oversees the Department of Planning and Development, which includes three divisions: (i) the Division of Development Services; (ii) the Division of Planning and Zoning; and (iii) the Division of Housing and Community Development.

The City Solicitor is head of the Law Department and acts as legal advisor to the Mayor, City Council, and all of the agencies of the City government. The City Solicitor is also responsible for: (i) advising on legal matters pertaining to all of the City's contracts and bonds; (ii) assisting City Council, the Mayor, and City agencies in the preparation of ordinances for introduction in City Council; and (iii) conducting litigation involving the City.

The Director of Finance is the chief financial and budget officer of the City and is selected from three names submitted to the Mayor by a Finance Panel, which is established pursuant to the City Charter and is comprised of the President of the Philadelphia Clearing House Association, the Chairman of the Philadelphia Chapter of the Pennsylvania Institute of Certified Public Accountants, and the Dean of the Wharton School of Finance and Commerce of the University of Pennsylvania. Under Mayor Kenney's administration, the Director of Finance is responsible for the financial functions of the City, including: (i) development of the annual operating budget, the capital budget, and capital program; (ii) the City's program for temporary and long-term borrowing; (iii) supervision of the operating budget's execution; (iv) the collection of revenues through the Department of Revenue; (v) the oversight of pension administration as Chairperson of the Board of Pensions and Retirement; and (vi) the supervision of the Office of Property Assessment. The Director of Finance is also responsible for the appointment and supervision of the City Treasurer, whose office manages the City's debt program and serves as the disbursing agent for the distribution of checks and electronic payments from the City Treasury and the management of cash resources.

The following are brief biographies of Mayor Kenney, his Chief of Staff, the Director of Finance, and the City Treasurer.

James F. Kenney, Mayor. On November 3, 2015, James F. Kenney was elected as the City's 99th Mayor and was sworn into office on January 4, 2016. Mayor Kenney is a lifelong resident of the City and a graduate of La Salle University. In 1991, Mayor Kenney was elected to serve as a Democratic City Councilman At-Large and was a member of City Council for 23 years.

Jane Slusser, Chief of Staff. Ms. Slusser was the campaign manager for Mayor Kenney's mayoral campaign. Previously, Ms. Slusser was Organizing Director at Equality Pennsylvania and led Human Rights Campaign's Americans for Workplace Opportunity statewide campaign in Pennsylvania. In 2008 and 2012, Ms. Slusser worked on President Obama's campaigns in South Philadelphia and Northeastern Pennsylvania. Ms. Slusser is a graduate of Barnard College.

Rob Dubow, Director of Finance. Mr. Dubow has served as Director of Finance since being appointed on January 7, 2008. Prior to that appointment, Mr. Dubow was the Executive Director of PICA. He has also served as Executive Deputy Budget Secretary of the Commonwealth, from 2004 to 2005, and as Budget Director for the City, from 2000 to 2004.

Rasheia Johnson, City Treasurer. Ms. Johnson was appointed as City Treasurer on January 19, 2016. Ms. Johnson has over 15 years of experience in government and public finance. In public finance, she has worked in the capacities of investment banker, financial advisor, and issuer officer, including positions at Siebert Brandford Shank, Loop Capital Markets, and Public Financial Management, and as Assistant to the Director of Finance for Debt Management for the City.

Government Services

Municipal services provided by the City include: (i) police and fire protection; (ii) health care; (iii) certain welfare programs; (iv) construction and maintenance of local streets, highways, and bridges; (v) trash collection, disposal and recycling; (vi) provision for recreational programs and facilities; (vii) maintenance and operation of the water and wastewater systems (the "Water and Wastewater Systems"); (viii) acquisition and maintenance of City real and personal property, including vehicles; (ix) maintenance of building codes and regulation of licenses and permits; (x) maintenance of records; (xi) collection of taxes and revenues; (xii) purchase of supplies and equipment; (xiii) construction and maintenance of airport facilities (the "Airport System"); and (xiv) maintenance of a prison system. The City maintains enterprise funds – the Water Fund and the Aviation Fund – for each of the Water and Wastewater Systems and the Airport System.

The City owns the assets that comprise the Philadelphia Gas Works ("PGW" or the "Gas Works"). PGW serves residential, commercial, and industrial customers in the City. PGW is operated by Philadelphia Facilities Management Corporation ("PFMC"), a non-profit corporation specifically organized to manage and operate PGW for the benefit of the City. For more information on PGW, see "PGW PENSION PLAN," "PGW OTHER POST-EMPLOYMENT BENEFITS," "EXPENDITURES OF THE CITY – PGW Annual Payments," and "LITIGATION – PGW," among others.

Local Government Agencies

There are a number of governmental authorities and quasi-governmental non-profit corporations that also provide services within the City. Certain of these entities are comprised of governing boards, the members of which are either appointed or nominated, in whole or part, by the Mayor, while others are independent of the Mayor's appointment or recommendation.

Mayoral-Appointed or Nominated Agencies

Philadelphia Industrial Development Corporation and Philadelphia Authority for Industrial Development. The Philadelphia Industrial Development Corporation ("PIDC") and the Philadelphia Authority for Industrial Development ("PAID"), along with the City's Commerce Department, coordinate the City's efforts to maintain an attractive business environment, attract new businesses to the City, and retain existing businesses. PIDC manages PAID's activities through a management agreement. Of the 30 members of the board of PIDC, eight are City officers or officials (the Mayor, the Managing Director, the Finance Director, the Commerce Director, the Director of Planning and Development, the City Solicitor, and two members of City Council), nine members are designated by the President of the Chamber of Commerce of Greater Philadelphia (the "Chamber of Commerce"), and the remaining 13 members are jointly designated by the Chamber of Commerce and the Commerce Director. The five-member board of PAID is appointed by the Mayor.

Philadelphia Municipal Authority. The Philadelphia Municipal Authority (formerly the Equipment Leasing Authority of Philadelphia) ("PMA") was originally established for the purpose of buying equipment and vehicles to be leased to the City. PMA's powers have been expanded to include any project authorized under applicable law that is specifically authorized by ordinance of City Council. PMA is governed by a five-member board appointed by City Council from nominations made by the Mayor.

Philadelphia Energy Authority. The Philadelphia Energy Authority ("PEA") was established by the City and incorporated in 2011 for the purpose of facilitating and developing energy generation projects, facilitating and developing energy efficiency projects, the purchase or facilitation of energy supply and consumer energy education. PEA is authorized to participate in projects on behalf of the City, other government agencies, institutions and businesses. PEA is governed by a five-member board appointed by City Council from four nominations made by the Mayor and one nomination from City Council.

Philadelphia Redevelopment Authority. The Philadelphia Redevelopment Authority (formerly known as the Redevelopment Authority of the City of Philadelphia) (the "PRA"), supported by federal funds through the City's Community Development Block Grant Fund and by Commonwealth and local funds, is responsible for the redevelopment of the City's blighted areas. PRA is governed by a five-member board appointed by the Mayor.

Philadelphia Land Bank. The Philadelphia Land Bank (the "PLB") was created in December 2013 with a mission to return vacant and tax delinquent property to productive reuse. The PLB is an independent agency formed under the authority of City ordinance and Pennsylvania law. The PLB has an 11-member board of directors, of which five are appointed by the Mayor and five are appointed by City Council. The final board member is appointed by a majority vote of the other board members. The City provides funds for its operations.

Philadelphia Housing Authority. The Philadelphia Housing Authority (the "PHA") is a public body organized pursuant to the Housing Authorities Law of the Commonwealth and is neither a department nor an agency of the City. PHA is the fourth largest public housing authority in the United States and is responsible for developing and managing low and moderate income rental units and limited amounts of for-sale housing in the City. PHA is also responsible for administering rental subsidies to landlords who rent their units to housing tenants qualified by PHA for such housing assistance payments. PHA is governed by a nine-member Board of Commissioners, all of whom are appointed by the Mayor with the approval of a majority of the members of City Council. The terms of the Commissioners are concurrent with the term of the appointing Mayor. Two of the members of the Board are required to be PHA residents.

Hospitals and Higher Education Facilities Authority of Philadelphia. The Hospitals and Higher Education Facilities Authority of Philadelphia (the "Hospitals Authority") assists non-profit hospitals by financing hospital construction projects. The City does not own or operate any hospitals. The powers of the Hospitals Authority also permit the financing of construction of buildings and facilities for certain colleges and universities and other health care facilities and nursing homes. The Hospitals Authority is governed by a five-member board appointed by City Council from nominations made by the Mayor.

Southeastern Pennsylvania Transportation Authority. The Southeastern Pennsylvania Transportation Authority ("SEPTA"), which is supported by transit revenues and federal, Commonwealth, and local funds, is responsible for developing and operating a comprehensive and coordinated public transportation system in the southeastern Pennsylvania region. Two of the 15 members of SEPTA's board are appointed by the Mayor and confirmed by City Council. For more information on SEPTA, see "EXPENDITURES OF THE CITY – City Payments to SEPTA."

Pennsylvania Convention Center Authority. The Pennsylvania Convention Center Authority (the "Convention Center Authority") constructed and maintains, manages, and operates the Pennsylvania Convention Center, which opened on June 25, 1993. The Pennsylvania Convention Center is owned by the Commonwealth and leased to the Convention Center Authority. An expansion of the Pennsylvania Convention Center was completed in March 2011. This expansion enlarged the Pennsylvania Convention Center to approximately 2,300,000 square feet with the largest contiguous exhibit space in the Northeast, the largest convention center ballroom in the East and the ability to host large tradeshows or two major conventions simultaneously.

Of the 15 members of the board of the Convention Center Authority, two are appointed by the Mayor and one by each of the President and Minority Leader of City Council. The Director of Finance is an ex-officio member of the Board with no voting rights. The Commonwealth, the City and the Convention Center Authority have entered into an operating agreement with respect to the operation and financing of the Pennsylvania Convention Center. In January 2014, SMG began managing and operating the Pennsylvania Convention Center, instituting a number of measures intended to reduce and control show costs and improve customer service. For more information on the Convention Center Authority, see "EXPENDITURES OF THE CITY – City Payments to Convention Center Authority."

The School District. The School District was established, pursuant to the First Class City Home Rule Education Act, by the Educational Supplement to the City Charter as a separate and independent home rule school district to provide free public education to the City's residents. Under the City Charter, the School District is governed by the Board of Education of the School District of Philadelphia (the "Board of Education"). During a period of distress following a declaration of financial distress by the Secretary of Education of the Commonwealth, all of the powers and duties of the Board of Education granted under the Public School Code of 1949, as amended (the "School Code"), or any other law are suspended and all of such powers and duties are vested in the School Reform Commission (the "School Reform Commission") created pursuant to the School Code. The School Reform Commission is granted all of the powers and duties of the Board of Education by the School Code, as well as all the powers and duties of a board of control under the School Code. The School Reform Commission is responsible for the operation, management, and educational program of the School District during such period. It is also responsible for financial matters related to the School District. The School District was declared distressed by the Secretary of Education of the Commonwealth pursuant to the School Code, effective December 22, 2001, and such declaration continues to be in effect.

The School Code provides that the members of the Board of Education continue to serve during the time the School District is governed by the School Reform Commission, and that the establishment of the School Reform Commission may not interfere with the regular selection of the members of the Board of Education. The School Code authorizes the School Reform Commission to delegate duties to the Board of Education if it so chooses. There has been no sitting Board of Education for many years. Two of the five members of the School Reform Commission are appointed by the Mayor and three by the Governor of the Commonwealth (the "Governor"), subject to confirmation by the Pennsylvania Senate.

Under the City Charter, the School District's governing body is required to levy taxes annually, within the limits and upon the subjects authorized by the General Assembly or City Council, in amounts sufficient to provide for operating expenses, debt service charges, and for the costs of any other services incidental to the operation of public schools. The School District has no independent power to authorize school taxes. Certain financial information regarding the School District is included in the City's CAFR.

Except during a period of distress following a declaration of financial distress by the Secretary of Education of the Commonwealth, as described above, the Board of Education consists of nine members appointed by the Mayor from a list supplied by an Educational Nominating Panel established in accordance with provisions set forth in the City Charter.

The School District is part of the Commonwealth system of public education. In a number of matters, including the incurrence of short-term and long-term debt, the School District is governed by the laws of the Commonwealth. The School District is a separate political subdivision of the Commonwealth, and the City has no property interest in or claim on any revenues or property of the School District.

On November 2, 2017, the Mayor proposed that the School Reform Commission vote to recommend that the Commonwealth's Secretary of Education declare an end to distress and dissolve the School Reform Commission effective June 30, 2018. On November 16, 2017, the School Reform Commission approved a resolution to dissolve and is expected to deliver a certified copy of such resolution to the Commonwealth's Secretary of Education for review and approval.

If the School Reform Commission is dissolved, the School District will again be governed by the Board of Education. Under existing law, the Mayor appoints all members of such Board. The Mayor believes that such governance will best achieve accountability, assure adequate resources and strong leadership for the School District, and strengthen the collaboration between the School District and City.

The City's direct contribution to the School District from the General Fund is estimated to be approximately $104.3 million in Fiscal Year 2018, not including funding from taxes levied by the School District and authorized by City Council. Return of the School District to Mayoral control is not expected to affect the Commonwealth contribution amount, the City's direct contribution amount, or City or School District revenues in Fiscal Year 2018.

For more information on the School District, see "EXPENDITURES OF THE CITY – City Payments to School District" and Table 21.

Non-Mayoral-Appointed or Nominated Agencies

PICA. PICA was created by the Pennsylvania Intergovernmental Cooperation Authority Act for Cities of the First Class (the "PICA Act") in 1991 to provide financial assistance to cities of the first class, and it continues in existence for a period not exceeding one year after all of its liabilities, including the PICA Bonds (as defined herein), have been fully paid and discharged. The City is the only city of the first class in the Commonwealth. The Governor, the President pro tempore of the Pennsylvania Senate, the Minority Leader of the Pennsylvania Senate, the Speaker of the Pennsylvania House of Representatives, and the Minority Leader of the Pennsylvania House of Representatives each appoints one voting member of PICA's board. The Secretary of the Budget of the Commonwealth and the Director of Finance of the City serve as ex officio members of PICA's board with no voting rights.

In January 1992, the City and PICA entered into an Intergovernmental Cooperation Agreement (the "PICA Agreement"), pursuant to which PICA agreed to issue bonds from time to time, at the request of the City, for the purpose of funding, among other things, deficits in the General Fund and a debt service reserve. See "DEBT OF THE CITY – PICA Bonds."

Under the PICA Act and for so long as any PICA Bonds are outstanding, the City is required to submit to PICA: (i) a five-year financial plan on an annual basis; and (ii) quarterly financial reports, each as further described below under "DISCUSSION OF FINANCIAL OPERATIONS – Five-Year Plans of the City" and "– Quarterly Reporting to PICA." Under the PICA Act, at such time when no PICA Bonds are outstanding, the City will no longer be required to prepare such annual financial plans or quarterly reports. See "DEBT OF THE CITY – PICA Bonds" for the current final stated maturities of outstanding PICA Bonds.

The PICA Act and the PICA Agreement provide PICA with certain financial and oversight functions. PICA has the power to exercise certain advisory and review procedures with respect to the City's financial affairs, including the power to review and approve the five-year financial plans prepared by the City, and to certify non-compliance by the City with the then-existing five-year plan. PICA is also required to certify non-compliance if, among other things, no approved five-year plan is in place or if the City has failed to file mandatory revisions to an approved five-year plan. Under the PICA Act, any such certification of non-compliance would, upon certification by PICA, require the Secretary of the Budget of the Commonwealth to withhold funds due to the City from the Commonwealth or any of its agencies (including, with certain exceptions, all grants, loans, entitlements, and payments payable to the City by the Commonwealth, including payment of the portion of the PICA Tax, as further described under "DEBT OF THE CITY – PICA Bonds" below, otherwise payable to the City).

Philadelphia Parking Authority. The Philadelphia Parking Authority (the "PPA") is responsible for: (i) the construction and operation of parking facilities in the City and at Philadelphia International Airport ("PHL"); and (ii) enforcement of on-street parking regulations. The members of the PPA's board are appointed by the Governor, with certain nominations from the General Assembly. For more information on the PPA, see "REVENUES OF THE CITY – Philadelphia Parking Authority Revenues."

DISCUSSION OF FINANCIAL OPERATIONS

Principal Operations

The major financial operations of the City are conducted through the General Fund. In addition to the General Fund, operations of the City are conducted through two other major governmental funds and 19 non-major governmental funds. The City operates on a July 1 to June 30 fiscal year ("Fiscal Year") and reports on all the funds of the City, as well as its component units, in the City's CAFR. PMA's and PICA's financial statements are blended with the City's statements. The financial statements for PGW, PRA, the PPA, the School District, the Community College of Philadelphia, the Community Behavioral Health, Inc., the Delaware River Waterfront Corporation, and PAID are presented discretely.

Fund Accounting

Funds are groupings of activities that enable the City to maintain control over resources that have been segregated for particular purposes or objectives. All of the funds of the City can be divided into three categories: governmental funds, proprietary funds and fiduciary funds.

Governmental Funds. The governmental funds are used to account for the financial activity of the City's basic services, such as: general government; economic and neighborhood development; public health, welfare and safety; cultural and recreational; and streets, highways and sanitation. The funds' financial activities focus on a short-term view of the inflows and outflows of spendable resources, as well as on the balances of spendable resources available at the end of the Fiscal Year. The financial information presented for the governmental funds is useful in evaluating the City's short-term financing requirements.

The City maintains 22 individual governmental funds. The City's CAFRs, including the City's CAFR for Fiscal Year 2016 (the "Fiscal Year 2016 CAFR"), present data separately for the General Fund, Grants Revenue Fund, and Health Choices Behavioral Health Fund, which are considered to be major funds. Data for the remaining 19 funds are combined into a single aggregated presentation.

Proprietary Funds. The proprietary funds are used to account for the financial activity of the City's operations for which customers are charged a user fee; they provide both a long- and short-term view of financial information. The City maintains three enterprise funds that are a type of proprietary fund – airport, water and wastewater operations, and industrial land bank.

Fiduciary Funds. The City is the trustee, or fiduciary, for its employees' pension plans. It is also responsible for PGW's employees' retirement reserve assets. Both of these fiduciary activities are reported in the City's CAFRs, including the Fiscal Year 2016 CAFR, as separate financial statements of fiduciary net assets and changes in fiduciary net assets.

See "CITY FINANCES AND FINANCIAL PROCEDURES" for a further description of these governmental, proprietary, and fiduciary funds.

Budget Procedure

At least 90 days before the end of the Fiscal Year, the operating budget for the next Fiscal Year is prepared by the Mayor and submitted to City Council for adoption. The budget, as adopted, must be balanced and provide for discharging any estimated deficit from the current Fiscal Year and make appropriations for all items to be funded with City revenues. The Mayor's budgetary estimates of revenues for the ensuing Fiscal Year and projection of surplus or deficit for the current Fiscal Year may not be altered by City Council. Not later than the passage of the operating budget ordinance, City Council must enact such revenue measures as will, in the opinion of the Mayor, yield sufficient revenues to balance the budget.

At least 30 days before the end of the Fiscal Year, City Council must adopt by ordinance an operating budget and a capital budget for the ensuing Fiscal Year and a capital program for the six ensuing Fiscal Years. If the Mayor disapproves the bills, he must return them to City Council with the reasons for his disapproval at the first meeting thereof held not less than ten days after he receives such bills. If the Mayor does not return the bills within the time required, they become law without his approval. If City Council passes the bills by a vote of two-thirds of all of its members within seven days after the bills have been returned with the Mayor's disapproval, they become law without his approval. While the City Charter requires that City Council adopt the ordinances for the operating and capital budgets at least 30 days before the end of the Fiscal Year, in practice, such ordinances are often adopted after such deadline, but before the end of such Fiscal Year. For example, the City's Fiscal Year 2018 operating budget ordinance was presented to City Council on March 2, 2017, approved by City Council on June 15, 2017, and signed by the Mayor on June 21, 2017. There is no practical consequence to adopting the budget ordinances after the deadline in the City Charter, but before the end of the Fiscal Year.

The capital program is prepared annually by the City Planning Commission to present the capital expenditures planned for each of the six ensuing Fiscal Years, including the estimated total cost of each project and the sources of funding (local, state, federal, and private) estimated to be required to finance each project. The capital program is reviewed by the Mayor and transmitted to City Council for adoption with his recommendation thereon. The Capital Program ordinance for Fiscal Years 2018-2023 (the "Fiscal Year 2018-2023 Adopted Capital Program") was approved by City Council on June 15, 2017, and signed by the Mayor on June 21, 2017.

The capital budget ordinance, authorizing in detail the capital expenditures to be made or incurred in the ensuing Fiscal Year from City Council appropriated funds, is adopted by City Council concurrently with the capital program. The capital budget must be in full conformity with that part of the capital program applicable to the Fiscal Year that it covers.

For information on the City's Fiscal Year 2018 Adopted Budget (as defined below), see "– Current Financial Information – Fiscal Year 2018 Adopted Budget and Revised Twenty-Sixth Five-Year Plan" herein. For information on the City's capital program, see "CITY CAPITAL PROGRAM" herein.

Budget Stabilization Reserve

In April 2011, the City adopted an amendment to the City Charter that established the "Budget Stabilization Reserve." The City Charter provides that the annual operating budget ordinance is required to provide for appropriations to a Budget Stabilization Reserve, to be created and maintained by the Director of Finance as a separate fund, which may not be commingled with any other funds of the City. Appropriations to the Budget Stabilization Reserve are required to be made each Fiscal Year if the projected General Fund balance for the upcoming Fiscal Year equals or exceeds three percent of General Fund appropriations for such Fiscal Year. City Council can appropriate additional amounts to the Budget Stabilization Reserve by ordinance, no later than at the time of passage of the annual operating budget ordinance and only upon recommendation of the Mayor. Total appropriations to the Budget Stabilization Reserve are subject to a limit of five percent of General Fund appropriations. Amounts in the Budget Stabilization Reserve from the prior Fiscal Years, including any investment earnings certified by the Director of Finance, are to remain on deposit therein.

Since the establishment of the Budget Stabilization Reserve, no annual operating budget ordinance has included a provision to fund the Budget Stabilization Reserve because the conditions that would require the funding of such reserve have not been met.

Annual Financial Reports

The City is required by the City Charter to issue, within 120 days after the close of each Fiscal Year, a statement as of the end of the Fiscal Year showing the balances in all funds of the City, the amounts of the City's known liabilities, and such other information as is necessary to furnish a true picture of the City's financial condition (the "Annual Financial Reports"). The Annual Financial Reports, which are released on or about October 28 of each year, are intended to meet these requirements and are unaudited. As described above, the audited financial statements of the City are contained in its CAFR, which is published at a later date. The Annual Financial Reports contain financial statements for all City governmental funds and blended component units presented on the modified accrual basis. The proprietary and fiduciary funds are presented on the full accrual basis. They also contain budgetary comparison schedules for those funds that are subject to an annual budget. The financial statements of the City's discretely presented component units that are available as of the date of the Annual Financial Reports are also presented. Historically, the results for General Fund fund balance have not materially changed between the Annual Financial Reports and the CAFRs.

The Annual Financial Report for Fiscal Year 2017 was released on October 27, 2017 (the "FY 2017 AFR (Unaudited)"). The City's CAFR for Fiscal Year 2017 is expected to be filed with the Municipal Securities Rulemaking Board ("MSRB") as soon as practicable after delivery of such report (expected to be no later than February 25, 2018). See "CITY FINANCES AND FINANCIAL PROCEDURES – Current City Disclosure Practices."

Five-Year Plans of the City

The PICA Act requires the City to annually prepare a financial plan that includes projected revenues and expenditures of the principal operating funds of the City for five Fiscal Years consisting of the current Fiscal Year and the subsequent four Fiscal Years. Each five-year plan, which must be approved by PICA, is required to, among other things, eliminate any projected deficits, balance the Fiscal Year budgets and provide procedures to avoid fiscal emergencies. For information on the Revised Twenty-Sixth Five-Year Plan (as defined below), see "– Current Financial Information – Fiscal Year 2018 Adopted Budget and Revised Twenty-Sixth Five-Year Plan."

Quarterly Reporting to PICA

The PICA Act requires the City to prepare and submit quarterly reports to PICA so that PICA may determine whether the City is in compliance with the then-current five-year plan. Each quarterly report is required to describe actual or current estimates of revenues, expenditures, and cash flows compared to budgeted revenues, expenditures, and cash flows by covered funds for each month in the previous quarter and for the year-to-date period from the beginning of the then-current Fiscal Year of the City to the last day of the fiscal quarter or month, as the case may be, just ended. Each such report is required to explain any variance existing as of such last day.

Under the PICA Agreement, a "variance" is deemed to have occurred as of the end of a reporting period if (i) a net adverse change in the fund balance of a covered fund (i.e., a principal operating fund) of more than 1% of the revenues budgeted for such fund for that Fiscal Year is reasonably projected to occur, such projection to be calculated from the beginning of the Fiscal Year for the entire Fiscal Year, or (ii) the actual net cash flows of the City for a covered fund are reasonably projected to be less than 95% of the net cash flows of the City for such covered fund for that Fiscal Year originally forecast at the time of adoption of the budget, such projection to be calculated from the beginning of the Fiscal Year for the entire Fiscal Year.

PICA may not take any action with respect to the City for variances if the City: (i) provides a written explanation of the variance that PICA deems reasonable; (ii) proposes remedial action that PICA believes will restore overall compliance with the then-current five-year plan; (iii) provides information in the immediately succeeding quarterly financial report demonstrating to the reasonable satisfaction of PICA that the City is taking remedial action and otherwise complying with the then-current five-year plan; and (iv) submits monthly supplemental reports until it regains compliance with the then-current five-year plan.

PICA last declared a variance in February 2009 and that variance was cured. A failure by the City to explain or remedy a variance would, upon certification by PICA, require the Secretary of the Budget of the Commonwealth to withhold funds due to the City from the Commonwealth or any of its agencies (including, with certain exceptions, all grants, loans, entitlements and payments payable to the City by the Commonwealth, including payment of the portion of the PICA Tax, as further described under "DEBT OF THE CITY – PICA Bonds" below, otherwise payable to the City). The City uses its Quarterly City Manager's Reports to satisfy the quarterly reporting requirement to PICA. Such reports are released within 45 days following the end of the applicable quarter and the most recent versions of such reports are available on the City's Investor Website (as defined herein). The most recent Quarterly City Manager's Report is the report for the period ending September 30, 2017, which was released on November 15, 2017 (the "First Quarter QCMR"). The next Quarterly City Manager's Report will be the report for the period ending December 31, 2017, and is expected to be released on or about February 15, 2018.

Summary of Operations

The following table presents the summary of operations for the General Fund for Fiscal Years 2013-2017 and budgeted amounts and current estimates for Fiscal Year 2018. For a description of the legally enacted basis on which the City's budgetary process accounts for certain transactions, see "CITY FINANCES AND FINANCIAL PROCEDURES – Budgetary Accounting Practices." "Current Estimate," as used in the tables and text below, refers (except as otherwise indicated) to the most recently revised estimates for Fiscal Year 2018, which were published by the City on November 15, 2017, as part of the First Quarter QCMR. Elsewhere in this APPENDIX III, the "Current Estimate" for Fiscal Year 2017 is derived from the Revised Twenty-Sixth Five-Year Plan and is noted as such where applicable.

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Table 1
General Fund
Summary of Operations (Legal Basis)
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Amounts in Millions of USD)(1), (2)

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Unaudited Actual 2017	Adopted Budget 2018	Current Estimate 2018
Revenues							
Real Property Taxes(3)	540.5	526.4	536.4	571.6	587.1	651.5	651.5
Wage and Earnings Tax	1,221.5	1,261.6	1,325.8	1,373.0	1,448.9	1,464.6	1,492.7
Net Profits Tax	19.2	16.3	21.2	25.4	22.3	29.7	29.6
Business Income and Receipts Tax	450.9	461.7	438.2	474.2	417.5	489.9	452.2
Sales Tax(4)	257.6	263.1	149.5	169.4	188.4	198.1	198.1
Other Taxes(5)	243.7	266.9	305.9	353.0	367.7	372.2	380.6
Philadelphia Beverage Tax(6)	0.0	0.0	0.0	0.0	39.5	92.4	92.4
Total Taxes	2,733.5	2,795.9	2,777.0	2,966.6	3,071.4	3,298.3	3,297.1
Locally Generated Non-Tax Revenue	266.2	301.8	294.4	291.0	309.5	307.1	302.9
Revenue from Other Governments							
Net PICA Taxes Remitted to the City(7)	314.0	318.7	346.5	383.4	409.5	419.2	427.6
Other Revenue from Other Governments(8)	337.5	347.3	302.8	305.6	307.7	316.3	316.6
Total Revenue from Other Governments	651.5	666.0	649.3	689.1	717.2	735.5	744.3
Receipts from Other City Funds	46.8	42.0	39.0	42.3	60.1	64.2	64.2
Total Revenue	3,698.0	3,805.6	3,759.8	3,989.0	4,158.2	4,405.1	4,408.4
Obligations/Appropriations							
Personal Services	1,362.4	1,450.6	1,508.7	1,562.6	1,589.0	1,628.9	1,651.1
Purchase of Services(9)	757.8	787.6	810.6	822.2	851.4	935.1	936.8
Materials, Supplies and Equipment	85.4	88.8	90.6	92.1	94.4	105.7	108.0
Employee Benefits	1,119.1	1,194.1	1,099.5	1,181.3(12)	1,241.0(13)	1,307.8(14)	1,296.2(14)
Indemnities, Contributions, and Refunds(10)	138.3	208.6	150.7	192.7	186.6	196.0	196.0
City Debt Service(11)	118.9	122.5	132.0	132.1	140.9	157.3	157.3
Payments to Other City Funds	31.5	34.4	39.4	32.8	36.5	36.0	36.0
Advances & Miscellaneous Payments / Labor Reserve	0.0	0.0	0.0	0.0	0.0	20.0(15)	0.0
Advances & Miscellaneous Payments / Federal Funding Reserve	0.0	0.0	0.0	0.0	0.0	50.9(16)	50.9(16)
Total Obligations/Appropriations	3,613.3	3,886.6	3,831.5	4,015.8	4,139.8	4,437.7	4,432.4
Operating Surplus (Deficit) for the Year	84.7	(80.9)	(71.7)	(26.8)	18.4	(32.6)	(24.0)
Net Adjustments – Prior Year	25.4	26.1	21.1	23.6	22.5	19.5	19.5
Cumulative Fund Balance Prior Year	146.8	256.9	202.1	151.5	148.3	88.6(17)	189.2(17)
Cumulative Adjusted Year End Fund Balance (Deficit)	256.9	202.1	151.5	148.3	189.2(17)	75.5	184.8

(1) Sources: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the FY 2017 AFR (Unaudited) and the First Quarter QCMR. For Fiscal Year 2018 (Adopted Budget), the Fiscal Year 2018 Adopted Budget. For Fiscal Year 2018 (Current Estimate), the First Quarter QCMR.
(2) Figures may not sum due to rounding.
(3) The amount for Fiscal Year 2013 reflects a 3.6% increase in the Real Estate Tax rate. The amounts for Fiscal Year 2014 and thereafter reflect a reduction in the Real Estate Tax rate, but also an increase in the assessed value of all taxable real property resulting from a citywide property reassessment. See "REVENUES OF THE CITY – Real Property Taxes Assessment and Collection."
(4) The amounts for Fiscal Years 2013-2014 reflect a 1% increase in the City Sales Tax effective October 8, 2009, which expired June 30, 2014. Fiscal Year 2015 figures include remaining 1% City Sales Tax, an additional $15,000,000 for debt service, plus any amounts designated for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(5) Includes Amusement Tax, Real Property Transfer Tax, Parking Lot Tax, Smokeless Tobacco Tax and miscellaneous taxes.
(6) The Philadelphia Beverage Tax (as defined herein) taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017. See "REVENUES OF THE CITY – Other Taxes" for a discussion of litigation relating to the Philadelphia Beverage Tax.
(7) For a detailed breakdown of "Net PICA Taxes Remitted to the City," see Table 43. Such figures reflect revenues received by the City from the PICA Tax of 1.50%, the proceeds of which are remitted to PICA for payment of debt service on PICA bonds and PICA expenses. After paying debt service and expenses, net proceeds from the tax are remitted to the City as Revenue from Other Governments. See "DEBT OF THE CITY – PICA Bonds."
(8) For a detailed breakdown of "Other Revenue from Other Governments," see Table 12. "Other Revenue from Other Governments" includes state gaming revenues.
(9) Includes debt service on lease and service agreement financings.
(10) Includes contributions to the School District. See also Table 21 and the accompanying text herein.
(11) Includes debt service on General Obligation Debt (as defined herein) and tax and revenue anticipation notes; excludes debt service on PICA bonds and lease and service agreement financings.
(12) Includes $9.7 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(13) Includes $19.2 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(14) Assumes $24.0 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(15) The Labor Reserve is set aside for the potential costs of anticipated new labor agreements with certain of the City's municipal unions. See "EXPENDITURES OF THE CITY – Overview of City Employees."
(16) The Federal Funding Reserve is set aside to address certain federal funding that may become unavailable as a result of cuts in the federal budget or the implementation of other federal policies that may affect federal funding for the City.
(17) In the Fiscal Year 2018 Adopted Budget, the City projected that Fiscal Year 2017 would end with a General Fund balance of $88.6 million. In the FY 2017 AFR (Unaudited), the City reported that Fiscal Year 2017 ended with a General Fund balance of $189.2 million. Such number has been included as the "Cumulative Fund Balance Prior Year" in the First Quarter QCMR.

Current Financial Information

Table 2 below shows General Fund balances for Fiscal Year 2016, unaudited actual results for Fiscal Year 2017, and budgeted amounts and current estimates for Fiscal Year 2018.

Table 2
General Fund – Fund Balance Summary
(Amounts in Thousands of USD)[1]

	Fiscal Year 2016 Actual[2] (June 30, 2016)	Fiscal Year 2017 Unaudited Actual[3] (October 27, 2017)	Fiscal Year 2018 Adopted Budget[4] (June 21, 2017)	Fiscal Year 2018 Current Estimate[5] (November 15, 2017)
REVENUES				
Taxes	$2,966,648	$3,071,422[6]	$3,298,332[6]	$3,297,081[6]
Locally Generated Non – Tax Revenues	290,990	309,481	307,058	302,888
Revenue from Other Governments	689,076	717,229	735,524	744,257
Revenues from Other Funds of City	42,253	60,072	64,191	64,191
Total Revenue	**$3,988,967**	**$4,158,204**	**$4,405,105**	**$4,408,417**
OBLIGATIONS / APPROPRIATIONS				
Personal Services	1,562,628	1,589,003	1,628,903	1,651,079
Personal Services – Employee Benefits	1,181,265[7]	1,240,989[7]	1,307,799[7]	1,296,249[7]
Purchase of Services[8]	822,159	851,447	935,078	936,835
Materials, Supplies, and Equipment	92,086	94,408	105,678	107,957
Contributions, Indemnities, and Taxes	192,729	186,559	196,010	196,010
Debt Service[9]	132,089	140,893	157,322	157,322
Payments to Other Funds	32,839	36,493	36,026	36,026
Advances & Miscellaneous Payments	0	0	70,893[10]	50,893[11]
Total Obligations / Appropriations	**$4,015,795**	**$4,139,792**	**$4,437,709**	**$4,432,371**
Operating Surplus (Deficit)	**(26,828)**	**18,412**	**(32,604)**	**(23,954)**
OPERATIONS IN RESPECT TO PRIOR FISCAL YEARS				
Net Adjustments – Prior Years	23,612	22,516	19,500	19,500
Operating Surplus/(Deficit) & Prior Year Adj.	(3,216)	0	(13,104)	(4,454)
Prior Year Fund Balance	151,531	148,315	88,596[12]	189,243[12]
Year End Fund Balance	**$148,315**	**$189,243**[12]	**$75,492**	**$184,789**

(1) Figures may not sum due to rounding.
(2) From the Fiscal Year 2016 CAFR.
(3) From the FY 2017 AFR (Unaudited).
(4) From the Fiscal Year 2018 Adopted Budget.
(5) From the First Quarter QCMR.
(6) For Fiscal Year 2017, assumes $39.5 million in revenue from the Philadelphia Beverage Tax. For Fiscal Year 2018 Adopted Budget and Fiscal Year 2018 Current Estimate, assumes $92.4 million in revenue from such tax. The Philadelphia Beverage Tax taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017. See "REVENUES OF THE CITY – Other Taxes" for a discussion of litigation relating to the Philadelphia Beverage Tax.
(7) For Fiscal Year 2016 Actual, includes $9.7 million from City Sales Tax revenues for the Municipal Pension Fund. For Fiscal Year 2017, includes $19.2 million from such tax revenues for the Municipal Pension Fund. For Fiscal Year 2018 Adopted Budget and Fiscal Year 2018 Current Estimate, assumes $24.0 million from such tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(8) Includes debt service on lease and service agreement financings.
(9) Includes debt service on General Obligation Debt (as defined herein) and tax and revenue anticipation notes; excludes debt service on PICA bonds and lease and service agreement financings.
(10) Includes (i) $20.0 million for the Labor Reserve, which is set aside for the potential costs of anticipated new labor agreements with certain of the City's municipal unions (see "EXPENDITURES OF THE CITY – Overview of City Employees"), and (ii) $50.9 million for the Federal Funding Reserve, which is set aside to address certain federal funding that may become unavailable as a result of cuts in the federal budget or the implementation of other federal policies that may affect federal funding for the City.
(11) Includes $50.9 million for the Federal Funding Reserve, which is set aside to address certain federal funding that may become unavailable as a result of cuts in the federal budget or the implementation of other federal policies that may affect federal funding for the City.
(12) In the Fiscal Year 2018 Adopted Budget, the City projected that Fiscal Year 2017 would end with a General Fund balance of $88.596 million. In the FY 2017 AFR (Unaudited), the City reported that Fiscal Year 2017 ended with a General Fund balance of $189.243 million. Such number has been included as the "Prior Year Fund Balance" in the First Quarter QCMR.

The following discussion of the unaudited actual results for Fiscal Year 2017, the Fiscal Year 2018 Adopted Budget, the Revised Twenty-Sixth Five-Year Plan, and the First Quarter QCMR, as applicable, is based, in part, on projections and forward-looking statements related to Fiscal Years 2017 and 2018. No assurance can be given that the applicable budget estimates and forward-looking statements will be realized. The accuracy of such budget estimates and forward-looking statements cannot be verified until after the close of the applicable Fiscal Year and the completion of the related audit.

Fiscal Year 2017 Unaudited Actual Results. The unaudited actual results for Fiscal Year 2017 are derived from information included in the FY 2017 AFR (Unaudited).

In the FY 2017 AFR (Unaudited), the City reported that Fiscal Year 2017 ended with a General Fund balance of $189.2 million, approximately $100.6 million higher than estimated in the Revised Twenty-Sixth Five-Year Plan.

Fiscal Year 2018 Adopted Budget and Revised Twenty-Sixth Five-Year Plan. On March 2, 2017, Mayor Kenney submitted his proposed Fiscal Year 2018 budget to City Council, along with the proposed five-year plan for Fiscal Years 2018-2022. On June 15, 2017, City Council approved the Fiscal Year 2018 operating budget ordinance, which was signed by the Mayor on June 21, 2017 (the "Fiscal Year 2018 Adopted Budget").

Original Twenty-Sixth Five-Year Plan. On June 19, 2017, the City submitted to PICA its FY 2018-2022 Five Year Financial Plan Per Council Approved Budget (the "Original Twenty-Sixth Five-Year Plan"). In the Original Twenty-Sixth Five-Year Plan, the City set forth certain priorities, including: (i) protecting the City's most vulnerable populations; (ii) increasing public safety in all neighborhoods; (iii) ensuring City government runs efficiently and effectively; (iv) improving economic opportunities for City residents; (v) making progress on initiatives funded by the Philadelphia Beverage Tax; and (vi) improving the fiscal health of the City with a focus on program-based budgeting and General Fund balance.

The Original Twenty-Sixth Five-Year Plan also included (i) a $200.0 million Labor Reserve (the "Labor Reserve") for potential costs of anticipated new labor agreements with certain of the City's municipal unions (see "EXPENDITURES OF THE CITY – Overview of City Employees"), and (ii) a $274.6 million Federal Funding Reserve (the "Federal Funding Reserve") to address certain federal funding that may become unavailable as a result of cuts in the federal budget or the implementation of other federal policies that may affect federal funding for the City.

On July 18, 2017, PICA approved the Original Twenty-Sixth Five-Year Plan. PICA staff, in recommending that PICA approve the Original Twenty-Sixth Five-Year Plan, noted that the revenue and expenditure projections presented in the Original Twenty-Sixth Five-Year Plan were [quoting from the PICA Act] "based on reasonable and appropriate assumptions and methods of estimation . . . consistently applied." The PICA staff report concluded that "PICA is confident that the [Original Twenty-Sixth Five-Year Plan] is based on reasonable assumptions, which will ultimately result in positive fund balances over each of the five years presented" in the Original Twenty-Sixth Five-Year Plan. The PICA report did, however, note that there are certain risk factors present, which include: (i) labor costs that are likely to exceed projections; (ii) the possibility of a decline in economic growth; (iii) rising pension costs; (iv) accelerating cost growth in employee health benefits; and (v) Business Income and Receipts Tax ("BIRT") volatility. The PICA staff report also highlighted certain other financial concerns that could impact the City's financial condition, including, among others, low General Fund balance and the financial stability of the School District (which is projected to have a budget deficit of nearly $1.0 billion by Fiscal Year 2022).

New Labor Agreement. On August 15, 2017, a labor arbitration panel awarded FOP Lodge No. 5 a new three-year contract (the "FOP Lodge No. 5 Labor Contract") reflecting annual raises ranging from 3.25% to 3.75%, resulting in a projected aggregate cost to the City of approximately $247.5 million during Fiscal Years 2018-2022. As set forth above in Tables 1 and 2, at footnotes 15 and 10, respectively, the City included $20 million of the Labor Reserve in the Fiscal Year 2018 Adopted Budget. Additionally, as part of the Fiscal Year 2018 Adopted Budget, the City included a Federal Funding Reserve of approximately $50.9 million and projected a year-end General Fund balance of approximately $75.5 million for Fiscal Year 2018. For Fiscal Year 2018, the City has determined that the impact of the FOP Lodge No. 5 Labor Contract is an additional cost of approximately $18.8 million.

Revised Twenty-Sixth Five-Year Plan. On September 5, 2017, the City submitted to PICA its FY 2018-2022 Five Year Financial Plan as Revised (the "Revised Twenty-Sixth Five-Year Plan"). While the Revised Twenty-Sixth Five-Year Plan includes adjustments to reflect the FOP Lodge No. 5 Labor Contract, much of the information included in the Original Twenty-Sixth Five-Year Plan was unchanged. PICA approved the Revised Twenty-Sixth Five-Year Plan on September 19, 2017.

PICA staff, in recommending that PICA approve the Revised Twenty-Sixth Five-Year Plan, noted that the revenue and expenditure projections presented in the Revised Twenty-Sixth Five-Year Plan were [quoting from the PICA Act] "based on reasonable and appropriate assumptions and methods of estimation . . . consistently applied." The PICA staff report concluded that "despite lowered [General Fund] balances in four of the five years presented in the [Revised Twenty-Sixth Five-Year Plan], PICA is confident that the [Revised Twenty-Sixth Five-Year Plan] is based on reasonable assumptions." In the PICA staff report, PICA continued to stress the risk factors that were identified in its approval of the Original Twenty-Sixth Five-Year Plan (as described above).

For Fiscal Years 2019-2022, the Revised Twenty-Sixth Five-Year Plan projects that the City will end such Fiscal Years with General Fund balances (on the legally enacted basis) of $76.9 million (Fiscal Year 2019), $29.4 million (Fiscal Year 2020), $31.0 million (Fiscal Year 2021), and $75.9 million (Fiscal Year 2022). The City continues to face uncertainty regarding the pace of economic growth. The estimated General Fund balances in Fiscal Years 2019-2022, which are low, could lead to financial risk.

<u>Fiscal Year 2018 Current Estimate</u>. The current estimate for Fiscal Year 2018 is derived from information included in the First Quarter QCMR.

As noted above, in the FY 2017 AFR (Unaudited), the City reported that Fiscal Year 2017 ended with a General Fund balance of $189.2 million, approximately $100.6 million higher than estimated in the Revised Twenty-Sixth Five-Year Plan. For Fiscal Year 2018, the First Quarter QCMR projects that the City will end such Fiscal Year with a General Fund balance (on the legally enacted basis) of $184.8 million, approximately $107.5 million higher than estimated in the Revised Twenty-Sixth Five-Year Plan.

Such higher than anticipated General Fund balance is mostly due to a higher ending General Fund balance from Fiscal Year 2017. Although this is positive for the City's fiscal situation, many of the factors that caused the better than anticipated performance in Fiscal Year 2017 are unlikely to recur, including (i) savings in health care costs, which could be impacted by potential changes at the federal level; (ii) lower debt service costs; and (iii) reserved expenditures associated with the Philadelphia Beverage Tax litigation, which are expected to be spent when the litigation related to such tax is resolved. See "REVENUES OF THE CITY – Other Taxes" for a discussion of such litigation. The projected General Fund balance for Fiscal Year 2018 is also higher than previous estimates due to the inclusion of certain budget reductions and updated revenue projections. The City faces many anticipated challenges that could impact its finances and such challenges are expected to be addressed during the budget process for Fiscal Year 2019.

For more information on the City's annual budget process under the City Charter and the five-year financial plans and quarterly reporting required under the PICA Act, see "– Budget Procedure," "– Five-Year Plans of the City," and "– Quarterly Reporting to PICA," above.

CITY FINANCES AND FINANCIAL PROCEDURES

Except as otherwise noted, the financial statements, tables, statistics, and other information shown below have been prepared by the Office of the Director of Finance and can be reconciled to the financial statements in the Fiscal Year 2016 CAFR and notes therein. The Fiscal Year 2016 CAFR was prepared by the Office of the Director of Finance in conformance with guidelines adopted by the Governmental Accounting Standards Board and the American Institute of Certified Public Accountants' audit guide, Audits of State and Local Government Units.

General

Governmental funds account for their activities using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the City considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures are generally recorded when a liability is incurred, as in the case of full accrual accounting. Debt service expenditures, as well as expenditures related to compensated absences and claims and judgments, are recorded only when payment is due; however, those expenditures may be accrued if they are to be liquidated with available resources.

Imposed non-exchange revenues, such as real estate taxes, are recognized when the enforceable legal claim arises and the resources are available. Derived tax revenues, such as wage, BIRT, net profits and earnings taxes, are recognized when the underlying exchange transaction has occurred and the resources are available. Grant revenues are recognized when all the applicable eligibility requirements have been met and the resources are available. All other revenue items are considered to be measurable and available only when cash is received by the City.

Revenue that is considered to be program revenue includes: (i) charges to customers or applicants for goods received, services rendered or privileges provided; (ii) operating grants and contributions; and (iii) capital grants and contributions. Internally dedicated resources are reported as general revenues rather than as program specific revenues; therefore, all taxes are considered general revenues.

The City's financial statements reflect the following three funds as major Governmental Funds:

- The General Fund is the City's primary operating fund. It accounts for all financial resources of the general government, except those required to be accounted for in other funds.

- The Health Choices Behavioral Health Fund accounts for resources received from the Commonwealth. These resources are restricted to providing managed behavioral health care to residents of the City.

- The Grants Revenue Fund accounts for the resources received from various federal, Commonwealth, and private grantor agencies. The resources are restricted to accomplishing the various objectives of the grantor agencies.

In Fiscal Year 2012, the City transferred the majority of the Department of Human Services ("DHS") revenues and obligations to the Grants Revenue Fund.

The City also reports on permanent funds, which are used to account for resources legally held in trust for use by the park and library systems of the City. There are legal restrictions on the resources of the permanent funds that require the principal to remain intact, while only the earnings may be used for the programs.

The City reports on the following fiduciary funds:

- The Municipal Pension Fund accumulates resources to provide pension benefit payments to qualified employees of the City and certain other quasi-governmental organizations.

- The Philadelphia Gas Works Retirement Reserve Fund accounts for contributions made by PGW to provide pension benefit payments to its qualified employees under its pension plan. For more information on the PGW Pension Plan (as defined herein), see "PGW PENSION PLAN."

- The Escrow Fund accounts for funds held in escrow for various purposes.

- The Employees Health & Welfare Fund accounts for funds deducted from employees' salaries for payment to various organizations.

- The Departmental Custodial Accounts account for funds held in custody by various departments of the City.

The City reports on the following major proprietary funds:

- The Water Fund accounts for the activities related to the operation of the Water and Wastewater Systems.

- The Aviation Fund accounts for the activities of the Airport System.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's ongoing operations. The principal operating revenues of the Water Fund are charges for water and sewer service. The principal operating revenues of the Aviation Fund are charges for the use of the City's airports. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Current City Disclosure Practices

It is the City's practice to file its CAFR, which contains the audited combined financial statements of the City, in addition to certain other information, such as the City's bond ratings and information about upcoming debt issuances, with the MSRB as soon as practicable after delivery of such report. For bonds issued in calendar year 2015 and after, the annual filing deadline is February 28; for bonds issued prior to calendar year 2015, the annual filing deadline is 240 days after the end of the respective Fiscal Year, being February 25. The Fiscal Year 2016 CAFR was filed with the MSRB on February 24, 2017, through the MSRB's Electronic Municipal Market Access ("EMMA") system.

A wide variety of information concerning the City is available from publications and websites of the City and others, including the City's investor information website at http://www.phila.gov/investor (the "City's Investor Website"). Any such information that is inconsistent with the information set forth in this Official Statement should be disregarded. No such information is a part of or incorporated into this Official Statement.

Independent Audit and Opinion of the City Controller

The City Controller has examined and expressed opinions on the basic financial statements of the City contained in the Fiscal Year 2016 CAFR. The City Controller has not participated in the preparation of this Official Statement nor in the preparation of the budget estimates and projections and cash flow statements and forecasts set forth in various tables contained in this Official Statement. Consequently, the City Controller expresses no opinion with respect to any of the data contained in this Official Statement other than what is contained in the basic financial statements of the City in the Fiscal Year 2016 CAFR.

Budgetary Accounting Practices

The City's budgetary process accounts for certain transactions on a basis other than generally accepted accounting principles ("GAAP"). In accordance with the City Charter, the City has formally established budgetary accounting control for its operating and capital improvement funds.

The operating funds of the City, consisting of the General Fund, nine Special Revenue Funds (County Liquid Fuels Tax, Special Gasoline Tax, Health Choices Behavioral Health, Hotel Room Rental Tax, Grants Revenue, Community Development, Car Rental Tax, Acute Care Hospital Assessment and Housing Trust Funds) and two Enterprise Funds (Water and Aviation Funds), are subject to annual operating budgets adopted by City Council. These budgets appropriate funds for all City departments, boards and commissions by major class of expenditure within each department. Major classes are defined as: (i) personal services; (ii) purchase of services; (iii) materials and supplies; (iv) equipment; (v) contributions, indemnities, and taxes; (vi) debt service; (vii) payments to other funds; and (viii) advances and other miscellaneous payments. The appropriation amounts for each fund are supported by revenue estimates and take into account the elimination of accumulated deficits and the re-appropriation of accumulated surpluses to the extent necessary. All transfers between major classes (except for materials and supplies and equipment, which are appropriated together) must have City Council approval. Appropriations that are not expended or encumbered at year-end are lapsed.

The City's capital budget is adopted annually by City Council. The capital budget is appropriated by project for each department. Requests to transfer appropriations between projects must be approved by City Council. Any appropriations that are not obligated at year-end are either lapsed or carried forward to the next Fiscal Year.

Schedules prepared on the legally enacted basis differ from the GAAP basis in that both expenditures and encumbrances are applied against the current budget, adjustments affecting activity budgeted in prior years are accounted for through fund balance or as reduction of expenditures and certain interfund transfers and reimbursements are budgeted as revenues and expenditures. The primary difference between the GAAP and legal (budgetary) fund balance is due to the timing of recognizing the BIRT. The legal basis recognizes BIRT revenues in the Fiscal Year they are collected. The GAAP basis requires the City to recognize the BIRT revenues (which are primarily paid in April) for the calendar year in which the BIRT taxes are due, requiring the City to defer a portion of the April payment into the next Fiscal Year. For more information on BIRT, see "REVENUES OF THE CITY – Business Income and Receipts Tax."

REVENUES OF THE CITY

General

Prior to 1939, the City relied heavily on the real estate tax as the mainstay of its revenue system. In 1932, the General Assembly adopted an act (commonly referred to as the Sterling Act) under which the City is permitted to levy any tax that was not specifically pre-empted by the Commonwealth. Acting under the Sterling Act and other Pennsylvania legislation, the City has taken various steps over the years to reduce its reliance on real property taxes as a source of income, including: (i) enacting the wage, earnings, and net profits tax in 1939; (ii) introducing a sewer service charge to make the sewage treatment system self-sustaining after 1945; (iii) requiring under the City Charter that the water, sewer, and other utility systems be fully self-sustaining; (iv) enacting the Mercantile License Tax (a gross receipts tax on business done within the City) in 1952, which was replaced as of the commencement of Fiscal Year 1985 by the Business Privilege Tax (renamed the Business Income and Receipts Tax in May 2012), and (v) enacting the City Sales Tax (as defined herein) for City general revenue purposes effective beginning in Fiscal Year 1992.

Major Revenue Sources

The City derives its revenues primarily from various taxes, non-tax revenues, and receipts from other governments. See Table 3 for General Fund tax revenues for Fiscal Years 2013-2017, as well as the budgeted amounts and current estimates for Fiscal Year 2018. The following discussion of the City's revenues does not take into account revenues in the non-debt related funds. The tax rates for Fiscal Years 2013 through 2016 are contained in the Fiscal Year 2016 CAFR.

Table 3 provides a detailed breakdown of the "Total Taxes" line from Table 1 above. Table 3 does not include "Revenues from Other Governments," which consists of "Net PICA Taxes Remitted to the City" and "Other Revenue from Other Governments." "Net PICA Taxes Remitted to the City" is set forth in Table 1 and a detailed breakdown of such revenues is shown in Table 43. "Other Revenue from Other Governments" is set forth in Table 1 and a detailed breakdown of such revenues is shown in Table 12.

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Table 3
General Fund Tax Revenues
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Amounts in Millions of USD) (1), (2), (3)

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Unaudited Actual 2017	Adopted Budget 2018	Current Estimate 2018
Real Property Taxes(4)							
Current	$504.2	$483.9	$493.1	$521.2	$542.9	$602.1	$602.1
Prior	36.3	42.5	43.4	50.4	44.2	49.3	49.3
Total	$540.5(4)	$526.4	$536.4	$571.6	$587.1	$651.5	$651.5
Wage and Earnings Tax(5)							
Current	$1,219.5	$1,255.9	$1,318.8	$1,364.6	$1,440.6	$1,457.4	$1,485.5
Prior	2.0	5.7	7.1	8.4	8.3	7.2	7.2
Total	$1,221.5	$1,261.6	$1,325.8	$1,373.0	$1,448.9	$1,464.6	$1,492.7
Business Taxes							
Business Income and Receipts Tax							
Current & Prior	$450.9	$461.7	$438.2	$474.2	$417.5	$489.9	$452.2
Net Profits Tax							
Current	$17.2	$13.2	$14.7	$23.3	$25.3	$26.6	-
Prior	1.9	3.1	6.5	2.1	(3.0)	3.1	-
Subtotal Net Profits Tax	$19.2	$16.3	$21.2	$25.4	$22.3	$29.7	$29.6
Total Business and Net Profits Taxes	$470.1	$478.0	$459.4	$499.6	$439.8	$519.6	$481.8
Other Taxes							
Sales and Use Tax(6)	$257.6	$263.1	$149.5	$169.4	$188.4	$198.1	$198.1
Amusement Tax	19.1	20.0	19.0	19.4	20.6	22.1	22.1
Real Property Transfer Tax	148.0	168.1	203.4	237.3	247.3	242.9	255.6
Parking Taxes	73.3	75.1	79.7	92.7	96.1	103.7	99.5
Other Taxes	3.4	3.7	3.8	3.6	3.8	3.4	3.4
Subtotal Other Taxes	$501.3	$530.0	$455.4	$522.4	$556.1	$570.3	$578.7
Philadelphia Beverage Tax(7)	0.0	0.0	0.0	0.0	39.5	92.4	92.4
TOTAL TAXES	$2,733.5	$2,795.9	$2,777.0	$2,966.6	$3,071.4	$3,298.3	$3,297.1

(1) Sources: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the FY 2017 AFR (Unaudited). For Fiscal Year 2018 (Adopted Budget), the Fiscal Year 2018 Adopted Budget. For Fiscal Year 2018 (Current Estimate), the First Quarter QCMR.
(2) See Table 7 in the Fiscal Year 2016 CAFR for tax rates.
(3) Figures may not sum due to rounding.
(4) The amount for Fiscal Year 2013 reflects a 3.6% increase in the Real Estate Tax rate. The amounts for Fiscal Year 2014 and thereafter reflect a reduction in the Real Estate Tax rate, but also an increase in the assessed value of all taxable real property resulting from a citywide property reassessment. See "– Real Property Taxes Assessment and Collection."
(5) Does not include the PICA Tax of 1.50%, the proceeds of which are remitted to PICA for payment of debt service on PICA Bonds and PICA expenses. After paying debt service and expenses, net proceeds from the tax are remitted to the City as Revenue from Other Governments. See "DEBT OF THE CITY – PICA Bonds" for a description of the PICA Tax.
(6) The amounts for Fiscal Years 2013-2014 reflect a 1% increase in the City Sales Tax effective October 8, 2009, which expired June 30, 2014. For Fiscal Years 2015-2018, figures include the remaining 1% City Sales Tax, an additional $15,000,000 for debt service, plus any amounts designated for the Municipal Pension Fund. See "– Sales and Use Tax."
(7) The Philadelphia Beverage Tax taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017. See "– Other Taxes" for a discussion of litigation relating to the Philadelphia Beverage Tax.

Wage, Earnings, and Net Profits Taxes

The largest tax revenue source (comprising more than 45% of all tax revenues in Fiscal Year 2016) is the wage, earnings and net profits tax. The wage and earnings tax is collected from all employees working within City limits, and all City residents regardless of work location. The net profits tax is collected on the net profits from the operation of a trade, business, profession, enterprise or other activity conducted by individuals, partnerships, associations or estates and trusts within the City limits. The following table sets forth the resident and non-resident wage, earnings and net profits tax rates for Fiscal Years 2013-2018, the annual wage, earnings and net profits tax receipts in Fiscal Years 2013-2017 and the budgeted amount and current estimate of such receipts for Fiscal Year 2018.

Table 4
Summary of Wage, Earnings and Net Profits Tax Rates and Receipts
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)[1]

Fiscal Year	Resident Wage, Earnings and Net Profits Tax Rates[2]	Non-Resident Wage, Earnings and Net Profits Tax Rates	Annual Wage, Earnings and Net Profits Tax Receipts (including PICA Tax) (Amounts in Millions of USD)[3]
2013	3.9280%	3.4985%	$1,617.2 (Actual)
2014	3.9240%	3.4950%	$1,662.3 (Actual)
2015	3.9200%	3.4915%	$1,755.5 (Actual)
2016	3.9102%	3.4828%	$1,842.9 (Actual)
2017	3.9004%	3.4741%	$1,940.4 (Unaudited Actual)
2018	3.8907%	3.4654%	$1,969.5 (Adopted Budget)
			$2,005.9 (Current Estimate)

(1) See Table 7 in the Fiscal Year 2016 CAFR for tax rates.
(2) Includes PICA Tax. See "DEBT OF THE CITY – PICA Bonds" for a description of the PICA Tax.
(3) Sources: For Fiscal Years 2013-2016, the City's CAFRs for the City's annual wage, earnings, and net profits and the City's Quarterly City Manager's Reports for gross PICA Tax (see first column in Table 43). For Fiscal Year 2017, the First Quarter QCMR. For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the First Quarter QCMR.

Commonwealth funding from gaming revenues is mandated by statute to be used to reduce the resident and nonresident wage tax rate. Gaming revenues have averaged approximately $86.3 million in Fiscal Years 2013-2016. For Fiscal Year 2017, the unaudited actual amount of gaming revenues is $86.3 million. For Fiscal Year 2018, the budgeted amount and current estimate of gaming revenues is $86.3 million. The wage tax rates in such Fiscal Years reflect a rate reduction due to these revenues.

See "– Proposed Tax Rate Changes" herein, for information regarding proposed wage and earnings tax rate reductions commencing in Fiscal Year 2018 under the Revised Twenty-Sixth Five-Year Plan.

In a 2015 decision by the Supreme Court of the United States (*Comptroller of the Treasury of Maryland v. Wynne*, 135 S. Ct. 1787 (2015)), a state's failure to provide certain credits against its personal income tax was held to have violated the dormant Commerce Clause of the United States Constitution. Such personal income tax was applied to income earned outside of the state of residency, and residents were not given a credit for income taxes paid to the state where such income was earned, resulting, in the circumstances presented, in taxing income earned interstate at a rate higher than income earned intrastate. The City does not provide a credit to resident taxpayers against their respective wage, earnings, and net profits tax liabilities for similar taxes paid to another jurisdiction. For 2016 and 2017, the City has paid approximately $414,000 to resident taxpayers in connection with this matter.

Business Income and Receipts Tax

In 1984, the Commonwealth passed legislation known as The First Class City Business Tax Reform Act of 1984, authorizing City Council to impose a business tax measured by gross receipts, net income or the combination of the two. The same year, City Council by ordinance repealed the Mercantile License Tax and the General Business Tax and imposed the Business Privilege Tax. As of May 1, 2012, the Business Privilege Tax was renamed the Business Income and Receipts Tax (the "BIRT"). Rental activities are usually considered to be business activities. Every estate or trust (whether the fiduciary is an individual or a corporation) must file a BIRT return if the estate or trust is engaged in any business or activity for profit within the City.

The BIRT allows for particular allocations and tax computations for regulated industries, public utilities, manufacturers, wholesalers and retailers. There are also credit programs where meeting the requirement of the program allows for a credit against the BIRT. All persons subject to both the BIRT and the net profits tax are entitled to apply a credit of 60% of the net income portion of their BIRT liability against what is due on the net profits tax to the maximum of the net profits tax liability for that tax year.

In November 2011, legislation was enacted to halt a previously enacted program of reducing the gross receipts portion of the BIRT and to commence reductions in the net income portion of the BIRT to take effect in tax year 2014 with changes phasing in through tax year 2023. The following table reflects such changes and provides a summary of BIRT rates for tax years 2012-2023. Future scheduled reductions in the net income portion of the BIRT remain subject to amendment by action of City Council and the Mayor.

Table 5
Summary of Business Income and Receipts Tax Rates

Tax Year	Gross Receipts	Net Income
2012	1.415 mills	6.45%
2013	1.415 mills	6.45%
2014	1.415 mills	6.43%
2015	1.415 mills	6.41%
2016	1.415 mills	6.39%
2017	1.415 mills	6.35%
2018	1.415 mills	6.30%
2019	1.415 mills	6.25%
2020	1.415 mills	6.20%
2021	1.415 mills	6.15%
2022	1.415 mills	6.10%
2023	1.415 mills	6.00%

In addition, the 2011 legislation incorporated several changes intended to help small and medium sized businesses and lower costs associated with starting a new business in order to stimulate new business formation and increase employment in the City, including the following: (i) the Commercial Activity License fee for all businesses was eliminated in 2014; (ii) business taxes for the first two years of operations for all new businesses with at least three employees in their first year and six employees in their second year were eliminated beginning in 2012; and (iii) across the board exclusions on the gross receipts portion of the BIRT were provided for all businesses phased in over a three-year period beginning in 2014 and eventually excluding the first $100,000 of gross receipts, along with proportional reductions in the net income portion of the BIRT. The legislation also provides for implementation of single sales factor apportionment in 2015, which enables businesses to pay BIRT based solely on sales in the City, rather than on property or payroll.

Real Property Taxes Assessment and Collection

A tax is levied on the assessed value of all taxable residential and commercial real property located within the City's boundaries (the "Real Estate Tax") as assessed by the Office of Property Assessment ("OPA") and collected by the Department of Revenue. Real Estate Taxes are allocated to the City and the School District with the millage split between the two taxes changing over the years. Real Estate Taxes are levied on a calendar year basis. Bills are sent in December for the following year and payments are due March 31. A discount of 1% is available for taxpayers who pay their Real Estate Taxes on or before the last day of February.

Beginning in 2010, the City significantly changed the system used for assessing Real Estate Tax in Philadelphia. On May 18, 2010, Philadelphia voters approved an amendment to the City Charter that split the assessment and appeals functions, moving assessment functions into City government into a new agency, OPA, and creating an independent board of appeals, replacing the Board of Revision of Taxes ("BRT"), which previously combined both functions. OPA formally took over responsibility for assessments in October 2010. However, the Pennsylvania Supreme Court ruled on September 20, 2010, that without an amendment to state law, the City did not have the authority to replace the BRT in its capacity as an existing appeals board. Therefore, the BRT remains in place as the property assessment appeals board; but the separation of the appeals function from the assessment function, which removed an inherent conflict and was a key goal of the legislation, remains in place. The BRT is an independent, seven-member board appointed by the Board of Judges of the Philadelphia Common Pleas Court.

For tax year 2014, under the Actual Value Initiative ("AVI"), all 579,000 properties in Philadelphia were reassessed at their actual market value by OPA, replacing outdated values and inequities within the system. As the new total assessed value of all properties more accurately reflected the market in Philadelphia, the total assessment grew substantially. As a result, the Mayor and City Council significantly reduced the tax rate to ensure that the reassessment resulted in the collection of approximately the same amount of current year revenue as the prior year (the rates are shown in Table 6 below). Moreover, in order to make the tax bills more understandable, AVI removed the complicated fractional system. Prior to AVI, tax bills were calculated by multiplying the certified market value by an established predetermined ratio ("EPR") multiplied by the tax rate. The last applicable EPR was 32%.

The changes in the system had implications for most property owners in the City. Under the old assessment system, some properties were valued closer to their actual value than other properties. Properties that had been valued closer to their actual value saw relatively smaller increases in assessments and when those assessment changes were coupled with the much lower Real Estate Tax rate, they produced tax decreases. On the other hand, properties that were relatively undervalued saw tax increases, a small number of which were substantial.

In order to mitigate the hardship that could be created by those large increases, the ordinance imposing the new Real Estate Tax rates included a homestead exemption of $30,000 for all primary residential owner-occupants. Alternative programs are also available to reduce Real Estate Tax bills for homeowners, including the Longtime Owner-Occupant Program (LOOP) to provide relief to longtime owners with large increases and the ten-year tax abatement. In addition to the homestead exemption, the City has also instituted several other property tax relief programs for taxpayers.

The Real Estate Tax rates for tax years 2012-2018 are set forth in Table 6 below:

Table 6
Real Estate Tax Rates and Allocations

Tax Year	City	School District	Total
2012	4.1230%	5.3090%	9.4320%
2013	4.4620%	5.3090%	9.7710%
2014[1]	0.6018%	0.7382%	1.3400%
2015[1]	0.6018%	0.7382%	1.3400%
2016[1]	0.6317%	0.7681%	1.3998%
2017[1]	0.6317%	0.7681%	1.3998%
2018[1]	0.6317%	0.7681%	1.3998%

[1] The reduction of the Real Estate Tax rates from tax year 2013 to tax year 2014 and succeeding tax years reflects the City's Actual Value Initiative.

For Fiscal Year 2016, the actual amount of Real Estate Tax revenue for the City was $521.2 million (excluding delinquent collections). For Fiscal Year 2017, the unaudited actual amount of Real Estate Tax revenue for the City is $542.9 million (excluding delinquent collections). For Fiscal Year 2018, the budgeted amount and current estimate of Real Estate Tax revenue for the City is $602.1 million (excluding delinquent collections). See Table 3 above.

Table 7 shows the assessed values of properties used for tax year 2016 and 2017 Real Estate Taxes (both of which reflect the effect of AVI). Under AVI, the OPA certifies the market values by March 31 of the prior year (that is, for tax year 2016, the OPA certified the market values on March 31, 2015). Taxpayers base their appeals on the certified market values, and therefore, the assessed values are adjusted as the appeals are finalized. For budgetary purposes, the OPA provides an updated table to the Office of the Director of Finance in December, from which tax rates are proposed.

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Table 7
Certified Property Values for Tax Years 2017 and 2018

Tax Year 2017*

Category	Tax Status	Assessed Value	Taxable Assessed Value	Exempt Assessed Value	Number of Parcels
Residential	Fully Taxable	$27,239,032,724	$27,239,032,724	$0	227,596
Residential	Abatement	5,656,888,300	1,584,639,283	4,072,249,017	13,906
Residential	Exemption	35,439,456,377	27,462,644,199	7,976,812,178	231,790
Total		**$68,335,377,401**	**$56,286,316,206**	**$12,049,061,195**	**473,292**
Hotels and Apartments	Fully Taxable	$11,309,938,300	$11,309,938,300	$0	21,819
Hotels and Apartments	Abatement	2,732,361,800	781,802,004	1,950,559,796	768
Hotels and Apartments	Exemption	3,144,407,300	1,009,817,435	2,134,589,865	4,629
Total		**$17,186,707,400**	**$13,101,557,739**	**$4,085,149,661**	**27,216**
Store with Dwelling	Fully Taxable	$2,654,179,000	$2,654,179,000	$0	12,611
Store with Dwelling	Abatement	113,049,600	49,070,436	63,979,164	211
Store with Dwelling	Exemption	410,214,200	295,454,160	114,760,040	1,830
Total		**$3,177,442,800**	**$2,998,703,596**	**$178,739,204**	**14,652**
Commercial	Fully Taxable	$13,987,005,400	$13,987,005,400	$0	9,873
Commercial	Abatement	2,474,106,400	787,638,368	1,686,468,032	426
Commercial	Exemption	24,712,736,300	430,585,920	24,282,150,380	4,358
Total		**$41,173,848,100**	**$15,205,229,688**	**$25,968,618,412**	**14,657**
Industrial	Fully Taxable	$2,654,419,300	$2,654,419,300	$0	3,960
Industrial	Abatement	292,220,700	49,509,849	242,710,851	107
Industrial	Exemption	499,667,800	28,545,270	471,122,530	291
Total		**$3,446,307,800**	**$2,732,474,419**	**$713,833,381**	**4,358**
Vacant Land	Fully Taxable	$1,397,808,735	$1,397,808,735	$0	33,804
Vacant Land	Abatement	42,839,500	117,908	42,721,592	35
Vacant Land	Exemption	1,921,166,000	18,996,099	1,902,169,901	11,898
Total		**$3,361,814,235**	**$1,416,922,742**	**$1,944,891,493**	**45,737**
Grand Total		**$136,681,497,736****[**]**	**$91,741,204,390**	**$44,940,293,346**	**579,912**

* Certified Market Value as of 3/31/2016
** Based on revised market values for tax year 2017, as of 4/11/2017, the revised assessed value is $138,276,358,121 (based on 581,919 parcels).

Tax Year 2018*

Category	Tax Status	Assessed Value	Taxable Assessed Value	Exempt Assessed Value	Number of Parcels
Residential	Fully Taxable	$28,834,307,863	$28,834,307,863	$0	233,860
Residential	Abatement	5,583,248,300	1,573,935,559	4,009,312,741	13,061
Residential	Exemption	34,743,873,838	26,942,483,841	7,801,389,997	227,450
Total		**$69,161,430,001**	**$57,350,727,263**	**$11,810,702,738**	**474,371**
Hotels and Apartments	Fully Taxable	$15,522,233,388	$15,522,233,388	$0	21,960
Hotels and Apartments	Abatement	4,433,514,680	1,479,167,632	2,954,347,048	850
Hotels and Apartments	Exemption	3,817,077,100	1,169,583,571	2,647,493,529	4,584
Total		**$23,772,825,168**	**$18,170,984,591**	**$5,601,840,577**	**27,394**
Store with Dwelling	Fully Taxable	$3,104,975,030	$3,104,975,030	$0	12,830
Store with Dwelling	Abatement	155,607,400	69,866,381	85,741,019	224
Store with Dwelling	Exemption	416,206,725	293,689,072	122,517,653	1,686
Total		**$3,676,789,155**	**$3,468,530,483**	**$208,258,672**	**$14,740**
Commercial	Fully Taxable	$18,081,041,646	$18,081,041,646	$0	9,143
Commercial	Abatement	3,078,093,570	934,704,280	2,143,389,290	366
Commercial	Exemption	25,512,090,455	662,684,636	24,849,405,819	4,237
Total		**$46,671,225,671**	**$19,678,430,562**	**$26,992,795,109**	**$13,746**
Industrial	Fully Taxable	$3,378,308,625	$3,378,308,625	$0	4,240
Industrial	Abatement	693,382,830	397,776,002	295,606,828	89
Industrial	Exemption	583,057,900	34,885,062	548,172,838	202
Total		**$4,654,749,355**	**$3,810,969,689**	**$843,779,666**	**$4,531**
Vacant Land	Fully Taxable	$2,449,227,090	$2,449,227,090	$0	32,970
Vacant Land	Abatement	99,963,900	0	99,963,900	36
Vacant Land	Exemption	2,509,072,725	60,071,559	2,449,001,166	12,345
Total		**$5,058,263,715**	**$2,509,298,649**	**$2,548,965,066**	**45,351**
Grand Total		**$152,995,283,065**	**$104,988,941,237**	**$48,006,341,828**	**580,133**

* Certified Market Value as of 3/31/2017.

As part of the transition to the new assessment system, OPA set up a new process called a first level review, where a taxpayer could request an administrative review of its assessment notice prior to launching a formal appeal with the BRT. The BRT has the authority, following a formal appeal, to either increase or decrease the property valuations contained in the return of the assessors in order that such valuations conform with law. After all changes in property assessments, and after all assessment appeals, assessments are certified and the results provided to the Department of Revenue.

On October 24, 2012, the Governor approved Act 160 ("Act 160"), which permits downward adjustments to School District property tax and use and occupancy tax rates, solely to offset the higher assessed values anticipated under AVI, and only to the extent the yield from such lower rates is no lower than the highest tax yield in the previous three years. Act 160 permits such adjustment for the reassessment year and the two years thereafter. Act 160 also precludes the School District from using its direct authority to levy real estate taxes, separately granted by the General Assembly of the Commonwealth, but only to the extent the City authorizes School District real estate taxes yielding an amount not lower than total real estate taxes yielded in the year prior to the year of the revision of assessments, adjusted to account for increases in assessed value since the first year of revision.

In 2014, City Council passed legislation intended to ease the transition to AVI, which provided, for tax year 2014 only, that residential and commercial property owners who appeal their new property assessments need only pay the prior year's amount of Real Estate Tax and (if applicable) use and occupancy tax, pending the assessment appeal. Interest and penalties would not accrue on the additional 2014 tax liability during the appeal, whether or not the appeal is ultimately successful.

For tax year 2017, OPA revised the assessed values of over 450,000 parcels throughout the City as part of its reassessment.

For tax year 2018, OPA revised the assessed values of over 60,000 parcels throughout the City as part of its reassessment. In September 2017, the owners of multiple commercial properties in the City filed a lawsuit against the City in the Court of Common Pleas. The plaintiffs in such matter have alleged that OPA violated the uniformity clause of the Pennsylvania Constitution in reassessing commercial properties and not residential properties for tax year 2018. The plaintiffs are seeking declaratory relief, an injunction, and an order directing OPA to recertify their properties at tax year 2017 values. The City intends to defend this lawsuit. If plaintiffs were to succeed in this matter, the City expects that any relief would only be granted prospectively, not resulting in the refund of any money. The Real Estate Taxes associated with the increase of the taxable assessed values for the properties in question is more than $14.9 million. For more general information on judgments and settlements on claims against the City, see "LITIGATION."

OPA plans to conduct a comprehensive reassessment of all properties in the City for tax year 2019 and each year thereafter.

Since 2010, the City has pursued a number of initiatives to improve the collection of Real Estate Taxes, including (i) prompt correspondence with taxpayers with overdue Real Estate Taxes, (ii) using outside collection firms to collect overdue Real Estate Taxes, (iii) sequestration of delinquent properties occupied by commercial tenants, and (iv) tax lien sales.

See Table 8 below for data with respect to Real Estate Taxes levied from 2012 to 2016 and collected by the City from January 1, 2012 to June 30, 2016. See Table 9 for the assessed property values of the City's principal taxable assessed parcels in 2017. See Table 10 for the 2017 market and assessed values of the ten highest valued taxable real properties in the City, as well as the amounts and duration of Real Estate Tax abatements with respect to such properties.

Table 8
City of Philadelphia
Real Property Taxes Levied and Collected
For the Calendar Years 2012-2016
(Amounts in Millions of USD)[(1), (2)]

Calendar Year	Taxes Levied Based on Original Assessment[(3)]	Taxes Levied Based on Adjusted Assessment[(4)]	Collections in the Calendar Year of Levy[(6)]	Percentage Collected in the Calendar Year of Levy	Collections in Subsequent Years[(5), (6)]	Total Collections to Date: All Years[(6)]	Percentage Collected to Date: All Years[(6)]
2012	$508.6	$491.1	$459.2	93.5%	$22.7	$481.9	98.1%
2013	$554.0	$537.7	$505.6	94.0%	$22.8	$528.4	98.3%
2014	$553.2	$515.4	$482.1	93.5%	$21.2	$503.3	97.7%
2015	$547.4	$519.1	$489.1	94.2%	$10.9	$500.0	96.3%
2016	$569.9	$552.7	$502.6	90.9%	N/A	$502.6	90.9%

(1) Source: Fiscal Year 2016 CAFR.
(2) Real Estate Taxes are levied by the City and the School District. While this table reflects City General Fund Real Estate Tax revenues exclusively, the School District Real Estate Tax collection rates are the same.
(3) Taxes are levied on a calendar year basis. They are due on March 31.
(4) Adjustments include assessment appeals, a 1% discount for payment in full by February 28, the senior citizen tax discount, and the tax increment financing return of tax paid.
(5) Includes payments from capitalization charges. This capitalization occurs one time, after the end of the first year of the levy, on any unpaid balances.
(6) For calendar year 2016, the data shown reflects collections through June 30, 2016. For earlier calendar years, the data shown reflects collections through December 31 of the respective year.

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Table 9
Principal Taxable Assessed Parcels – 2017
(Amounts in Millions of USD) (1)

Taxpayer	2017 Assessment(2)	2017 Percentage of Total Assessments
HUB Properties Trust	$265.7	0.27%
Nine Penn Center Associates	232.6	0.24
Phila Liberty Place ELP	207.7	0.21
Philadelphia Market Street	203.7	0.21
Commerce Square Partners	178.2	0.18
Maguire / Thomas	170.1	0.17
SRI Eleven 1818 Market L	170.0	0.17
Franklin Mills Associates	163.2	0.17
Brandywine Operating	156.7	0.16
1700 Market Street Associates	142.4	0.15
Total	$1,890.3	1.93%
Total Taxable Assessments(3)	$98,129.7	

Source: City of Philadelphia, Office of Property Assessment.

(1) Figures may not sum due to rounding.
(2) Assessment Values rounded to the nearest $100,000 and only include the largest assessed property for each taxpayer, additional properties owned by the same taxpayer are not included.
(3) Total 2017 Taxable Assessment as of March 31, 2016.

Table 10
Ten Largest Certified Market and Assessment Values of Tax-Abated Properties
Certified Values for 2017
(Amounts in Millions of USD)(1)(2)

Location	2017 Certified Market Value	Total Assessment	Total Taxable Assessment	Total Exempt Assessment	Exempt Through Tax Year
1701 John F Kennedy Blvd.	$212.5	$212.5	$9.1	$203.4	2017
1001-99 Delaware Ave.	$158.4	$158.4	$46.8	$111.6	2020
1500-30 Spring Garden St.	$138.7	$138.7	$106.0	$32.7	2020
1900-24 Arch St.	$85.8	$85.8	$2.2	$83.6	2025
1338-48 Chestnut St. Unit 2	$80.0	$80.0	$57.1	$22.9	2017
819-41 Chestnut St.	$76.8	$76.8	$72.6	$4.1	2024
2116 Chestnut St.	$72.5	$72.5	$1.4	$71.1	2023
3400L Lancaster Ave.	$69.7	$69.7	$0.0	$69.7	2025
2026-58 Market St.	$65.0	$65.0	$8.4	$56.6	2023
1601 N 15th St.	$64.2	$64.2	$0.5	$63.7	2017

Source: City of Philadelphia, Office of Property Assessment.

(1) Figures may not sum due to rounding.
(2) Certified Values as of 3/31/2016.

Sales and Use Tax

Pursuant to the authorization granted by the Commonwealth under the PICA Act, the City adopted a 1% sales and use tax (the "City Sales Tax") for City general revenue purposes effective beginning in Fiscal Year 1992. It is imposed in addition to, and on the same basis as, the Commonwealth's sales and use tax. Vendors are required to pay City Sales Taxes to the Commonwealth Department of Revenue together with the Commonwealth sales and use tax. The State Treasurer deposits the collections of City Sales Taxes in a special fund and disburses the collections, including any investment income earned thereon, less administrative fees of the Commonwealth Department of Revenue, to the City on a monthly basis.

The City's budgets for Fiscal Years 2010-2014 provided for an increase in the City Sales Tax rate to 2%, as authorized by the Commonwealth effective October 8, 2009, through June 30, 2014. In July 2013, the Commonwealth authorized the implementation of a new, permanent 1% increase in the City Sales Tax rate effective July 1, 2014, which was adopted by the City on June 12, 2014 and became effective on July 1, 2014. Under the reauthorized City Sales Tax, the first $120 million collected from such additional 1% is distributed to the School District. For Fiscal Years 2015-2018, the General Assembly has also authorized the City to use the next $15 million of City Sales Tax revenues from such additional 1% collected in such Fiscal Years for the payment of debt service on obligations issued by the City for the benefit of the School District. Following any such debt service payments, that remaining portion of the City Sales Tax revenues from such additional 1% distributed to the City is required to be used exclusively in accordance with Act 205 (as defined herein) and deposited to the Municipal Pension Fund.

In October 2014, the City, through PAID, issued $57.5 million in bonds to fund a portion of the School District's operating deficit for Fiscal Year 2015 and refund certain outstanding bonds that funded a portion of the Fiscal Year 2014 operating deficit. The debt service on such bonds is approximately $15 million annually through Fiscal Year 2018 and the City expects to continue paying its obligations with respect to such bonds with a combination of proceeds from the City Sales Tax revenues and other General Fund revenues. Such City Sales Tax revenues are not pledged to the holders of such bonds. Such funding by the City of a portion of the School District's operating deficits for Fiscal Years 2014-2015, and the related payment of debt service, does not require a comparable increase in grants by the City to the School District in subsequent Fiscal Years. See "EXPENDITURES OF THE CITY – City Payments to School District" and the paragraphs that follow Table 21.

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The following table sets forth the City Sales Taxes collected in Fiscal Years 2013-2017 and the budgeted amount and current estimate for Fiscal Year 2018.

Table 11
Summary of City Sales Tax Collections
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Amounts in Millions of USD)[(1)]

Fiscal Year	City Sales Tax Collections
2013 (Actual)	$257.6
2014 (Actual)	$263.1
2015 (Actual)	$149.5[(2)]
2016 (Actual)	$169.4[(2)]
2017 (Unaudited Actual)	$188.4[(2)]
2018 (Adopted Budget and Current Estimate)	$198.1[(2)]

(1) Sources: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the FY 2017 AFR (Unaudited). For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the First Quarter QCMR.
(2) Net collections estimated to be distributed to the City from the first 1% City Sales Tax and following the distribution of $120 million of revenues from the second 1% City Sales Tax to the School District, as described above.

Other Taxes

The City also collects real property transfer taxes, parking taxes, an amusement tax, a valet parking tax, an outdoor advertising tax, a smokeless tobacco tax, the Philadelphia Beverage Tax (see below), and other miscellaneous taxes.

In June 2016, City Council passed the Philadelphia Beverage Tax (Chapter 19-4100 of the Philadelphia Code) (the "Philadelphia Beverage Tax"). On October 31, 2016, the Department of Revenue adopted regulations for the Philadelphia Beverage Tax. The Philadelphia Beverage Tax taxes the distribution of certain beverages at 1.5 cents per ounce and became effective January 1, 2017.

The Philadelphia Beverage Tax is deposited into the General Fund, and with the additional revenue, the City has budgeted additional funds for pre-Kindergarten, community schools, and debt service for improvements to parks, playgrounds, recreation centers, and libraries. In the FY 2017 AFR (Unaudited), the City reported that it collected approximately $39.5 million in revenues from the Philadelphia Beverage Tax for Fiscal Year 2017. In the Revised Twenty-Sixth Five-Year Plan, the City projects for Fiscal Years 2018-2022 that it will collect approximately (i) $92.4 million (Fiscal Year 2018), (ii) $92.5 million (Fiscal Year 2019), (iii) $92.6 million (Fiscal Year 2020), (iv) $92.1 million (Fiscal Year 2021), and (v) $91.7 million (Fiscal Year 2022) in revenues from the Philadelphia Beverage Tax in such Fiscal Years.

To date, the City has reserved a portion of the revenues it has collected from the Philadelphia Beverage Tax while the litigation related thereto (as described below) is ongoing. The City expects to spend such revenues when such litigation is resolved.

On September 14, 2016, a lawsuit challenging the Philadelphia Beverage Tax was filed by the American Beverage Association and other co-plaintiffs in the Philadelphia Court of Common Pleas – Trial Division – Civil. On December 19, 2016, the Court of Common Pleas dismissed the complaint in its entirety. The plaintiffs appealed this ruling. On June 14, 2017, the Commonwealth Court of Pennsylvania, which is one of the Commonwealth's intermediate appellate courts, upheld the decision of the Court of Common Pleas. The plaintiffs have petitioned the Pennsylvania Supreme Court to review this decision. The decision to grant or deny any such petition is at the discretion of the Pennsylvania Supreme Court. Such petition is pending. For more general information on judgments and settlements on claims against the City, see "LITIGATION."

Improved Collection Initiative

The City is pursuing a multifaceted strategy designed to improve collections of various taxes while decreasing delinquencies. Key compliance strategies continue to include revocation of commercial licenses and sequestration and tax lien sales, among others.

In addition to compliance efforts, the City has launched two projects – one to implement technology solutions for its cashiering and payments processing systems and another to develop an integrated data warehouse and case management system. These initiatives are designed to improve operational efficiencies and drive compliance efforts by providing tools currently unavailable to the City.

Other Locally Generated Non-Tax Revenues

These revenues include license fees and permit sales, traffic fines and parking meter receipts, court related fees, stadium revenues, interest earnings and other miscellaneous charges and revenues of the City.

Revenue from Other Governments

The following table presents revenues received from other governmental jurisdictions for Fiscal Years 2013-2017, the budgeted amounts and current estimate for Fiscal Year 2018, and the percentage such revenues represent in the General Fund. The table does not reflect substantial amounts of revenues from other governments received by the Grants Revenue Fund, Community Development Fund, and other operating and capital funds of the City.

Table 12
Revenue from Other Governmental Jurisdictions
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Dollar Amounts in Millions of USD)(1), (2), (3)

Fiscal Year	Commonwealth(4)	Federal Government	Other Governments(5)	Total	Percentage of General Fund Revenues
2013 (Actual)	$233.6	$39.7	$64.2	$337.5	9.1%
2014 (Actual)	$255.3	$31.0	$61.0	$347.3	9.1%
2015 (Actual)	$212.7	$30.1	$60.0	$302.8	8.1%
2016 (Actual)	$223.7	$29.7	$52.3	$305.6	7.7%
2017 (Unaudited Actual)	-	-	-	$307.7	7.4%
2018 (Adopted Budget)	$221.4	$35.6	$59.3	$316.3	7.2%
2018 (Current Estimate)	-	-	-	$316.6	7.2%

(1) Sources: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the FY 2017 AFR (Unaudited). For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget, the Revised Twenty-Sixth Five-Year Plan, and the First Quarter QCMR. A breakdown of revenues from the Commonwealth, the federal government, and other governments is not available in the FY 2017 AFR (Unaudited) or the First Quarter QCMR.
(2) Figures may not sum due to rounding.
(3) Does not include the PICA Tax.
(4) Such revenues are for health, welfare, court, and various other specified purposes.
(5) Such revenues primarily consist of payments from PGW, parking fines and fees from PPA, and other authorized adjustments.

Proposals to Reduce Federal and/or State Funding

Sanctuary City. ***The following discussion of Senate Bill 10 and the Executive Order (each as defined below) addresses proposed state legislation and a federal policy that may affect certain funding for the City. The City is monitoring Senate Bill 10 and the Executive Order and the potential impact, if any, such initiatives may have on City funding. Table 12 above presents certain revenues received from other governmental jurisdictions, including the Commonwealth and the federal government, and the percentage such revenues represent in the General Fund.***

Commonwealth Funding. Senate Bill No. 10, Session of 2017, was passed by the Pennsylvania State Senate on February 7, 2017 ("Senate Bill 10"). Senate Bill 10 has been referred to the Judiciary Committee of the Pennsylvania House of Representatives.

Senate Bill 10 proposes to amend certain provisions of the Pennsylvania Consolidated Statutes, in matters addressing municipalities of refuge and the eligibility of such municipalities to receive certain Commonwealth funding, among other things. In such bill, a "municipality of refuge" is defined as "a municipality that permits, requires or requests the release of an individual in the custody of the law enforcement agency of the municipality notwithstanding the existence of a United States Immigration and Customs Enforcement civil immigration detainer request for the individual."

Under Senate Bill 10, the governing body of any municipality is prohibited from adopting "a rule, order, ordinance or policy which prohibits the enforcement of a Federal law or the laws of [the] Commonwealth, pertaining to an immigrant or immigrations." The bill also provides that, with certain exceptions, "a law enforcement agency or municipality that refuses to enforce an immigration order shall not be eligible for any [S]tate grant." Under the bill, in order to be eligible to receive State grant funds, a municipality is required to certify to State agencies and departments offering such grants that it is not a municipality of refuge and is otherwise in compliance with the provisions of the bill. Senate Bill 10 also provides for certain exceptions to governmental immunity for municipalities of refuge.

The City estimates that in Fiscal Year 2016 it received a total of approximately $1.7 billion from the Commonwealth, including: (i) nondiscretionary funding (e.g., funds the City is required to spend for the protection of children in the child welfare system); (ii) formulaic funding (e.g., reimbursement by the Commonwealth to the City for carrying out duties the Commonwealth wants the City to provide); and (iii) discretionary funding.

As of the date of this Official Statement, no further action has been taken on Senate Bill 10 and there is no indication of when any action on this legislation will be taken by the Pennsylvania House of Representatives. In addition, it is unclear what Commonwealth funding would be affected by Senate Bill 10. Accordingly, at this time, the City does not have sufficient information on the potential impact, if any, on any Commonwealth funding that may be withheld as a result of Senate Bill 10.

Federal Government Funding. On January 25, 2017, President Trump issued "Executive Order – Enhancing Public Safety in the Interior of the United States," which aims to address certain immigration policies of the administration relating to "sanctuary jurisdictions," among other things (the "Executive Order"). The Executive Order states, in part, that the policy of the executive branch will be to "ensure that jurisdictions that fail to comply with applicable Federal law do not receive Federal funds, except as mandated by law." The Executive Order further provides that:

> In furtherance of [such] policy, the Attorney General and the Secretary [of Homeland Security (the "Secretary")], in their discretion and to the extent consistent with law, shall ensure that jurisdictions that willfully

> refuse to comply with 8 U.S.C. 1373 (sanctuary jurisdictions) are not eligible to receive Federal grants, except as deemed necessary for law enforcement purposes by the Attorney General or the Secretary. The Secretary has the authority to designate, in his discretion and to the extent consistent with law, a jurisdiction as a sanctuary jurisdiction. The Attorney General shall take appropriate enforcement action against any entity that violates 8 U.S.C. 1373, or which has in effect a statute, policy, or practice that prevents or hinders the enforcement of Federal law.

The practical import of this Executive Order is unclear. The Executive Order raises many questions of law regarding the attachment of the above policies to federal funding and has been challenged in judicial proceedings, including a lawsuit brought by the City (as described below). The United States Department of Justice (the "Department of Justice") has indicated in such proceedings that certain law enforcement-related federal grants could potentially be impacted by the Executive Order.

In April 2017, the Department of Justice sent a letter to nine cities, including the City, reminding them they had until the end of June to certify their compliance with certain immigration-related federal laws or risk having grants withheld or be barred from receiving future federal grants. In June 2017, the City sent a letter to the Department of Justice indicating that its local policies did not violate any immigration-related federal laws. In October 2017, the Department of Justice sent another letter to the City disagreeing with such conclusion and restating its position that federal grants may be withheld if the City does not become compliant with federal law. The City responded to such letter, again asserting its compliance. The City identified an annual law enforcement federal grant in the amount of approximately $1.7 million that could potentially have been withheld as a result of this Executive Order and filed for an injunction in the Federal Court for the Eastern District of Pennsylvania seeking to enjoin the Department of Justice from withholding such grant funds. On November 15, 2017, the court issued its decision and preliminarily enjoined the Department of Justice and the Attorney General from withholding the grant funds.

Revenues from City-Owned Systems

In addition to taxes, the City realizes revenues through the operation of various City-owned systems, such as the Water and Wastewater Systems and PGW. The City has issued revenue bonds with respect to the Water and Wastewater Systems and PGW to be paid solely from and secured by a pledge of the respective revenues of these systems. The revenues of the Water and Wastewater Systems and PGW are not legally available for payment of other obligations of the City until, on an annual basis, all revenue bond debt service requirements and covenants relating to those bonds have been satisfied, and then only in a limited amount and upon satisfaction of certain other conditions.

Water Fund. The revenues of the Philadelphia Water Department (the "Water Department") are required to be segregated from other funds of the City. Under the City's Restated General Water and Wastewater Revenue Bond Ordinance of 1989 (the "Water Ordinance"), an annual transfer may be made from the Water Fund to the City's General Fund in an amount not to exceed the lesser of (i) all Net Reserve Earnings and (ii) $4,994,000. "Net Reserve Earnings" means the amount of interest earnings during the Fiscal Year on amounts in the Debt Reserve Account and Subordinated Bond Fund, each as defined in the Water Ordinance. The following table shows the amounts transferred from the Water Fund to the General Fund for Fiscal Years 2013-2016, the current estimate for Fiscal Year 2017, and the budgeted amount and current estimate for Fiscal Year 2018.

Table 13
Transfers from Water Fund to General Fund (Excess Interest on Sinking Fund Reserve)
Fiscal Years 2013-2016 (Actual), 2017 (Current Estimate), and 2018 (Adopted Budget and Current Estimate)(1)

Fiscal Year	Amount Transferred
2013 (Actual)	$560,156
2014 (Actual)	$400,364
2015 (Actual)	$745,585
2016 (Actual)	$1,555,702
2017 (Current Estimate)	$900,000(2)
2018 (Adopted Budget and Current Estimate)	$1,000,000(2)

(1) Sources: For Fiscal Years 2013-2016, the City's Supplemental Report of Revenues & Obligations for such Fiscal Years. For Fiscal Year 2017, the Revised Twenty-Sixth Five-Year Plan. For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the Revised Twenty-Sixth Five-Year Plan.
(2) For Fiscal Years 2017 and 2018, the Water Department has budgeted $1,200,000 and $1,500,000, respectively, as its transfer from the Water Fund to the General Fund. Historically, the Water Department's budgeted amount is greater than the figure included in the City's operating budget.

The City also budgets for certain transfers from the Water Fund to the General Fund related to services performed and costs borne by the General Fund. For Fiscal Year 2018, the City has budgeted $9,046,000 for such transfers.

PGW. The revenues of PGW are required to be segregated from other funds of the City. Payments for debt service on PGW bonds are made directly by PGW. PGW is required to make an annual payment of $18 million to the General Fund. The Fiscal Year 2018 Adopted Budget includes such $18 million annual payment to the General Fund from PGW for such Fiscal Year. In certain past Fiscal Years, the City granted back to PGW such annual payments. For more information on PGW, see "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Government Services."

Philadelphia Parking Authority Revenues

The PPA was established by City ordinance pursuant to the Pennsylvania Parking Authority Law (P.L. 458, No. 208 (June 5, 1947)). Various statutes, ordinances, and contracts authorize PPA to plan, design, acquire, hold, construct, improve, maintain and operate, own or lease land and facilities for parking in the City, including such facilities at PHL, and to administer the City's on-street parking program.

PPA owns and operates five parking garages and a number of surface parking lots at PHL. The land on which these garages and surface lots are located is leased from the City, acting through the Division of Aviation, pursuant to a lease expiring in 2030 (the "Lease Agreement"). The Lease Agreement provides for payment of rent to the City, which is equal to gross receipts less operating expense, debt service on PPA's bonds issued to finance improvements at PHL and reimbursement to PPA for capital expenditures and prior year operating deficits relating to its operations at PHL, if any.

One component of the operating expenses is PPA's administrative costs. In 1999, at the request of the FAA, PPA and the City entered into a letter agreement (the "FAA Letter Agreement"), which contained a formula for calculating PPA's administrative costs and capped such administrative costs at 28% of PPA's total administrative costs for all of its cost centers. PPA owns and/or operates parking facilities at a number of locations in the City in addition to those at PHL. These parking facilities are revenue centers for purposes of the FAA Letter Agreement. According to PPA's audited financial statements, as filed with the City, PPA has been in compliance with the FAA Letter Agreement since its execution.

On-street parking revenues are administered and collected on behalf of the City by the PPA. Pursuant to Pennsylvania law, PPA is to transmit these revenues to the City, net of any actual expenses incurred in the administration of the on-street parking system in accordance with the PPA's approved budget, provided that, should such net revenues exceed a designated threshold, any excess above that threshold is to be transmitted to the School District. Pursuant to Act 84 of 2012, the effect of which commenced in Fiscal Year 2015, the threshold, which was previously set at $25 million, was set at $35 million, including a mandatory escalator to take into account increases in revenues. The following table presents payments received by the City from PPA for on-street parking for Fiscal Years 2013-2017 and the budgeted amount and current estimate for Fiscal Year 2018.

Table 14
PPA On-Street Parking Payments to the City
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)[(1)]
(Amounts in Millions of USD)

Fiscal Year	Payments to the City
2013 (Actual)	$36.5
2014 (Actual)	$37.7
2015 (Actual)	$38.1
2016 (Actual)	$33.7
2017 (Unaudited Actual)	$39.9
2018 (Adopted Budget and Current Estimate)	$38.8

(1) Sources: For Fiscal Years 2013-2016, the City's Supplemental Report of Revenues & Obligations for such Fiscal Years. For Fiscal Year 2017, the First Quarter QCMR. For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the First Quarter QCMR.

Proposed Tax Rate Changes

The Revised Twenty-Sixth Five-Year Plan includes reductions in both the resident and non-resident wage and earnings tax. The following table details rates under the Revised Twenty-Sixth Five-Year Plan.

Table 15
Changes in Wage and Earnings Tax Rates[(1)]

	Revised Twenty-Sixth Five-Year Plan	
Fiscal Year	Resident Wage and Earnings Tax Rates[(2)]	Non-Resident Wage and Earnings Tax Rates
2017	3.9004%	3.4741%
2018	3.8907%	3.4654%
2019	3.8420%	3.4221%
2020	3.7844%	3.3707%
2021	3.7276%	3.3202%
2022	3.6997%	3.2953%

(1) Source: The Revised Twenty-Sixth Five-Year Plan.
(2) Includes PICA Tax. See "DEBT OF THE CITY – PICA Bonds" for a description of the PICA Tax.

Under the Revised Twenty-Sixth Five-Year Plan, receipts from the Wage and Earnings Tax are estimated to grow at a rate of 3.68% in Fiscal Year 2017, 3.41% in Fiscal Year 2018, 3.78% in Fiscal Year 2019, 3.62% in Fiscal Year 2020, 3.56% in Fiscal Year 2021, and 3.59% in Fiscal Year 2022.

EXPENDITURES OF THE CITY

Three of the principal City expenditures are for personal services (including pensions and other employee benefits), purchase of services (including payments to SEPTA), and debt service. The expenditures for personal services and purchase of services are addressed below under this caption; debt service is addressed below under "DEBT OF THE CITY."

Personal Services (Personnel)

As of June 30, 2017, the City employed 27,459 full-time employees, representing approximately 4.13% of employees in Philadelphia (approximately 665,036 employees, according to non-seasonally adjusted data from the Bureau of Labor Statistics). Of these full-time public employees, the salaries of 21,610 were paid from the General Fund. Additional sources of funding for full-time City employees include the Grants Revenue Fund, the Water Fund, and the Aviation Fund, as well as grants and contributions from other governments. Activities funded through such grants and contributions are not undertaken if funding is not received. The following table sets forth the number of filled, full-time positions of the City as of the dates indicated.

Table 16
Filled, Full-Time Positions[(1), (2)]

	June 30, 2013	June 30, 2014	June 30, 2015	June 30, 2016	June 30, 2017
General Fund					
Police	7,193	7,095	7,061	6,942	6,986
Fire	2,125	2,053	2,150	2,316	2,281
Courts	1,909	1,866	1,842	1,839	1,856
Prisons	2,248	2,268	2,286	2,289	2,277
Streets	1,690	1,684	1,664	1,676	1,702
Public Health	673	659	653	653	687
Human Services	377	382	395	449	385
All Other	4,710	4,984	5,115	5,263	5,436
Total – General Fund	20,925	20,991	21,166	21,427	21,610
Other Funds	5,547	5,657	5,626	5,615	5,849
Total – All Funds	26,472	26,648	26,792	27,042	27,459

(1) Source: Table P-1 in the City's Quarterly City Manager's Reports.
(2) Table 16 does not include seasonal or temporary employees.

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Overview of City Employees

The wages and benefits of City employees vary not only by position, but also by whether the employees are represented by a union and, if so, which union. Employee wages and benefits may also be impacted by whether the employee is subject to the civil service system or exempt from those rules. Thus, City employees may be broken down into three major categories for purposes of understanding how their wages and benefits are determined: (i) employees who are not subject to the civil service system ("exempt employees"); (ii) employees who fall under the civil service system but are not represented by a union ("non-represented employees"); and (iii) employees who are subject to the civil service system and are represented by a union ("union employees").

As of June 30, 2017, the City's 22,841 unionized employees, representing approximately 83.2% of the City's employees, were represented by the City's four municipal unions: (i) Fraternal Order of Police ("FOP") Lodge No. 5; (ii) IAFF Local 22; (iii) AFSCME DC 33; and (iv) American Federation of State, County and Municipal Employees District Council 47 ("AFSCME DC 47").

In July 2016, a collective bargaining agreement was reached with AFSCME DC 33, which provides for pension reforms coupled with salary increases, lump sum payments for health care, and a one-time bonus. This collective bargaining agreement was ratified on August 19, 2016. The costs of such agreement, along with the cost of the wage reopener with IAFF Local 22, were included in the City's modified FY 2017-2021 Five Year Financial Plan Per Council Approved Budget, dated August 8, 2016, and approved by PICA on August 31, 2016. Such plan also provides additional resources for compensation changes for other unionized and non-unionized employees.

On June 30, 2017, the labor agreements for FOP Lodge No. 5, IAFF Local 22, and AFSCME DC 47 expired. On August 15, 2017, a labor arbitration panel awarded FOP Lodge No. 5 a new three-year contract reflecting annual raises ranging from 3.25% to 3.75%, resulting in a projected aggregate cost to the City of approximately $247.5 million during Fiscal Years 2018-2022. The costs of such agreement were included in the Revised Twenty-Sixth Five-Year Plan, dated September 5, 2017, and approved by PICA on September 19, 2017.

The arbitration process with IAFF Local 22 and the negotiations with AFSCME DC 47 relating to their respective new labor agreements are ongoing.

For more information on the current status of the interest arbitration awards that have been issued for, and contract settlements reached with, the City's major labor organizations, as well as changes that have been made for non-represented employees, see Table 18.

Collective bargaining with respect to the wages, hours and other terms and conditions of employment of union employees, other than uniformed employees of the Police Department and the Fire Department, is governed by the Public Employee Relations Act (Pa. P.L. 563, No. 195 (1970)) ("PERA"). PERA requires the City and the unions to negotiate in good faith to attempt to reach agreement on new contract terms and, if an impasse exists after such negotiations, to mediate through the Commonwealth Bureau of Mediation. Once the mediation procedures have been satisfied, and if no collective bargaining agreement has been reached, most employees covered by PERA are permitted to strike. Certain employees, however, including employees of the Sheriff's Office and the Register of Wills represented by the FOP, corrections officers represented by AFSCME DC 33, and employees of the First Judicial District represented by AFSCME DC 47, are not permitted to strike under PERA. These employees must submit any impasse to binding interest arbitration once the mediation procedures have been satisfied. PERA permits parties at an impasse, which are not required to submit to binding interest arbitration, to do so voluntarily. Provisions of an interest arbitration award issued under PERA that require legislative action are considered advisory only and the legislative body is permitted to meet, consider, and reject those provisions.

Uniformed employees of the Police Department and the Fire Department bargain under the Policemen and Firemen Collective Bargaining Act (Pa. P.L. 237, No. 111 (1968)) ("Act 111"), which provides for final and binding interest arbitration to resolve collective bargaining impasses and prohibits these employees from striking. Interest arbitration under Act 111 operates similarly to interest arbitration under PERA, but City Council is not permitted to reject the portions of an interest arbitration award that require legislative action. To the contrary, City Council is required to pass any legislation necessary to implement the award unless doing so would violate state or federal law. Thus, the arbitration panel has significant, although not limitless, power to issue an award on mandatory subjects of bargaining. As with interest arbitration under PERA, the arbitration panel cannot issue an award on a matter that is one of inherent managerial policy. In addition to the grounds available to challenge a PERA interest arbitration award on appeal, the PICA Act requires an Act 111 interest arbitration panel to, among other things, give substantial weight to the City's five-year plan and ability to pay for the cost of the award without negatively impacting services, and gives the City the right to appeal the award to the Court of Common Pleas if it believes the panel has failed to meet these responsibilities. If the arbitration panel fails to do so or, among other things, if it awards wages or benefits that exceed what is assumed in the most-recent five-year plan without substantial evidence in the record demonstrating that the City can afford these increases without adversely impacting service levels, the Court of Common Pleas is required to vacate the arbitration award and remand it to the arbitration panel.

Overview of Employee Benefits

The City provides various pension, life insurance, and health benefits for its employees. The benefits offered depend on the employee's union status and bargaining unit, if applicable. General Fund employee benefit expenditures for Fiscal Years 2013 through 2018 are shown in the following table.

Table 17
General Fund Employee Benefit Expenditures
Fiscal Years 2013-2016 (Actual) and 2017-2018 (Projected)
(Amounts in Millions of USD)[1]

	2013	2014	2015	2016	2017	2018
Pension Contribution[2]	$618.9[4]	$646.4[4]	$558.3	$622.1[8]	$651.0[9]	$680.2[10]
Health[3]						
Payments under City-administered plan	76.4	75.6	75.5	72.5	81.9	---
Payments under union-administered plans[5]	286.8	333.8	319.1	339.0	366.2	---
Total Health	363.2	409.4	394.6	411.5	448.1	457.5
Federal Insurance Contributions Act (FICA) Taxes[6]	64.7	67.5	71.2	71.7	75.4	76.1
Other[7]	72.3	70.8	75.6	76.0	84.1	85.1
Total	$1,119.1	$1,194.1	$1,099.5	$1,181.3	$1,258.6	$1,298.9

(1) Source: From the City's five-year financial plans, except for "Payments under City-administered plan," which was provided by the City, Department of Human Resources. Figures may not sum due to rounding.
(2) Includes debt service on Pension Bonds (as defined herein) and the Commonwealth contributions to the Municipal Pension Fund. See Tables 29 and 30.
(3) This breakdown of "Health" between "Payments under City-administered plan" and "Payments under union-administered plans" is an estimate of actual expenses. The City records the actual health expenses in one line item, which corresponds to the figures in "Total Health."
(4) Includes repayment of deferred contributions. See Table 29.
(5) AFSCME DC 33 receives a per member per month amount of $1,194 from the City.
(6) Includes payments of social security and Medicare taxes.
(7) Includes payments for unemployment compensation, employee disability, group life, group legal, tool allowance, and flex cash payments.
(8) Includes $9.7 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(9) Assumes $18.3 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."
(10) Assumes $24.0 million from City Sales Tax revenues for the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."

Each of the City's four municipal unions sponsors its own health plan that provides medical, prescription, dental and optical benefits to participating employees and eligible retirees through trusts on which the City has varying degrees of minority representation. Exempt and non-represented employees, along with represented employees of the Register of Wills and employees represented by AFSCME DC 33 who have chosen not to become members of the union's healthcare plan, receive health benefits through a plan sponsored and administered by the City. Each of the plans provides different benefits determined by the plan sponsor or through collective bargaining. To provide health care coverage, the City pays a negotiated monthly premium for employees covered by the union contract for AFSCME DC 33 and is self-insured for all other eligible employees. Aside from AFSCME DC 33, the City is responsible for the actual health care cost that is invoiced to the City's unions by their respective vendors. The actual cost can be a combination of self-insured claim expenses, premiums, ancillary services and administrative expenses. In addition, employees who satisfy the eligibility criteria receive five years of health benefits after their retirement. See "OTHER POST-EMPLOYMENT BENEFITS" below. These benefits are determined and administered by the plan in which the employee participated at the time of his or her retirement. As reflected in Table 17, the health payments under the City-administered plan have been relatively constant; the health payments for the union-sponsored plans have increased substantially since Fiscal Year 2013. Other employee benefits, including life insurance and paid leave, are similarly determined by the respective collective bargaining agreements and City policies and Civil Service Regulations. Employees also participate in the Municipal Pension Plan. See "PENSION SYSTEM" below.

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Overview of Current Labor Situation

Table 18 summarizes the current status of the interest arbitration awards that have been issued for, and contract settlements reached with, the City's major labor organizations, as well as changes that have been made for non-represented employees. It also provides a brief summary of pension reforms that have occurred since 2009.

Table 18
Status of Arbitration Awards and Labor Contract Settlements

Organization	Authorized Number of Full-Time Citywide Employees Represented[1]	Status of Arbitration Award or Contract Settlement	Wage Increases	Pension Reforms[2]
FOP Lodge No. 5 (Police Department)	6,457	Three-year contract effective July 1, 2017 through June 30, 2020 awarded by arbitration panel on August 15, 2017	• 3.25% pay increase for Fiscal Year 2018. • 3.50% pay increase for Fiscal Year 2019. • 3.75% pay increase for Fiscal Year 2020.	• Employees in Plan 87 hired before 1/1/10 pay 5% of salary • Employees hired on or after 1/1/10 elect to either enter Plan 87 and pay 6% of salary or enter Plan 10 • Beginning 7/1/17 and 7/1/18, current employees pay an additional .92% of salary • Employees hired on or after 7/1/17 will be required to pay an additional 2.5% of salary

FOP Lodge No. 5 (Sheriff's Office and Register of Wills)	373	Three-year contract effective July 1, 2014 through June 30, 2017 awarded by arbitration panel on April 16, 2015	• 2.5% increase for Fiscal Year 2015.
			• 3.0% increase for Fiscal Year 2016.
			• 3.25% increase for Fiscal Year 2017.
			• Register of Wills employees receive same wage package as AFSCME DC 33.
				• Sheriff's Office:
				  • Employees in Plan 87 hired before 1/1/12 pay 30% of normal cost
				  • Employees hired on or after 1/1/12 elect to enter Plan 87 and pay 50% of normal cost or enter Plan 10
				• Register of Wills:
				  • Employees in Plan 87 hired before 1/1/12 pay 30% of normal cost
				  • Employees hired on or after 1/1/12 participate in Plan 10

IAFF Local 22	2,407	Four-year contract effective July 1, 2013 through June 30, 2017 awarded by arbitration panel on January 9, 2015; *arbitration process on new labor agreement is ongoing.*	• 3% pay increase for Fiscal Year 2014 and 2015. • 3.25% pay increase for Fiscal Year 2016. • 3.25 % pay increase for Fiscal Year 2017.	• Employees in Plan 87 hired before 7/2/12 pay 5% of salary • Employees hired on or after 7/2/12 elect to enter Plan 87 and pay 6% of salary or enter Plan 10
AFSCME DC 33	7,409	Four-year contract term effective July 1, 2016 through June 30, 2020 (ratified on August 19, 2016)	• 3.0% pay increase effective July 1, 2016. • 3.0% pay increase for Fiscal Year 2018 • 2.5% pay increase for Fiscal Year 2019. • 3.0% pay increase for Fiscal Year 2020.	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contributions to the pension fund • Mandatory stacked hybrid plan for new hires under which employees receive a defined benefit pension for their first $50,000 of earnings and a defined contribution pension for earnings above $50,000 • Plan 10 closed to new enrollment for members of DC33 but remains unchanged for other employee groups • Once fully implemented, such employees in Plan 10 are expected to receive a letter indicating that they have 90 days to make an irrevocable election to opt into the stacked-hybrid • DROP (as defined below) interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year (currently 0.65%) for participants not currently enrolled or eligible to enroll

(1) From data provided by the Mayor's Office of Labor Relations as of June 30, 2017.
(2) "Plan 87" and "Plan 10" referenced in this column are described in Table 19. Plan 10 is mandatory for newly-hired employees of the Register of Wills and was mandatory for employees covered by the Correctional Officers arbitration award who are now covered by the same pension provisions as other employees of AFSCME DC 33.

Organization	Authorized Number of Full-Time Citywide Employees Represented[(1)]	Status of Arbitration Award or Contract Settlement	Wage Increases	Pension Reforms[(2)]
AFSCME DC 33, Local 159 Correctional Officers	2,164	Three-year contract effective July 1, 2014 through June 30, 2017 awarded by arbitration panel on March 23, 2015	• 3% pay increase for Fiscal Year 2015. • 3.25% pay increase for Fiscal Years 2016 and 2017. • $600 equity adjustment to base wages on January 1, 2016.	• Tiered contribution system for current employees under which employees who have higher salaries pay a higher percent of their salaries as contributions to the pension fund • Mandatory stacked hybrid plan for new hires under which employees receive a defined benefit pension for their first $50,000 of earnings and a defined contribution pension for earnings above $50,000 • Plan 10 closed to new enrollment for members of DC33 but remains unchanged for other employee groups • Once fully implemented, such employees in Plan 10 are expected to receive a letter indicating that they have 90 days to make an irrevocable election to opt into the stacked-hybrid • DROP interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year (currently 0.65%) for participants not currently enrolled or eligible to enroll
AFSCME DC 47	3,548	Contract term from July 1, 2009 through June 30, 2017 ratified on March 5, 2014; *negotiations on new labor agreement are ongoing.*	• 3.5% pay increase effective April 4, 2014. • 2.5% pay increase for Fiscal Year 2016. • 3% pay increase for Fiscal Year 2017.	• Employees in Plan 87 hired before 3/5/14 pay 30% of normal cost plus an additional 0.5% of pay in 2015 and an additional 0.5% of pay in 2016 (for a total of an additional 1% of pay by 1/1/16) • Employees hired on or after 3/5/14 may elect to enter Plan 87 and pay an additional 1% of pay over what others in Plan 87 pay or enter Plan 10 • DROP interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year (currently 0.65%) for participants not currently enrolled or eligible to enroll
AFSCME DC 47 Local 810 Court Employees	483	Agreement ratified August 13, 2014 on economic terms for July 1, 2014 through June 30, 2016; a one-year agreement for July 1, 2016-June 30, 2017 was also ratified in Fiscal Year 2017; *negotiations on new labor agreement are ongoing.*	• 2.5% pay increase for Fiscal Year 2015. • 2.5% pay increase for Fiscal Year 2016. • 3% pay increase for Fiscal Year 2017.	• Employees in Plan 87 hired before 3/5/14 pay 30% of normal cost plus an additional 0.5% of pay in 2015 and an additional 0.5% of pay in 2016 (for a total of an additional 1% of pay by 1/1/16) • Employees hired on or after 11/14/14 may elect to enter Plan 87 and pay an additional 1% of pay over what others in Plan 87 pay or enter Plan 10 • DROP interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year (currently 0.65%) for participants not currently enrolled or eligible to enroll
Non-Represented Employees	1,129	Changes for non-represented employees	• 2.5% pay increase effective October 1, 2012. • 3.5% non-represented pay increase effective April 1, 2014. • 2.5% non-represented pay increase for Fiscal Year 2016.	• Employees in Plan 87 hired before 5/14/14 for non-represented civil service and before 11/14/14 for non-represented non-civil service pay 30% of normal cost plus an additional 0.5% of pay in 2015 and an additional 0.5% of pay in 2016 (for a total of an additional 1% of pay by 1/1/16) • Employees hired on or after dates above may elect to enter Plan 87 and pay an additional 1% of pay over what others in Plan 87 pay or enter Plan 10 • DROP interest rate decreases from 4.5% to the rate on the one year treasury effective January 1 of each year (currently 0.65%) for participants not currently enrolled or eligible to enroll

(1) From data provided by the Mayor's Office of Labor Relations as of June 30, 2017.

(2) "Plan 87" and "Plan 10" referenced in this column are described in Table 19. Plan 10 is mandatory for newly-hired employees of the Register of Wills and was mandatory for employees covered by the Correctional Officers arbitration award who are now covered by the same pension provisions as other employees of AFSCME DC 33.

Certain features of the 1987 Plan ("Plan 87") and the 2010 Plan ("Plan 10") are summarized below. Plan 87 is solely a defined benefit plan. Plan 10 is a "hybrid" plan that includes both a defined benefit and a defined contribution component. A more comprehensive summary of each plan is included as Appendix D of the July 1, 2016 Valuation (as defined herein). See "PENSION SYSTEM" below.

Table 19
Summary of Key Aspects of Plan 87 and Plan 10

Plan 87	Normal Retirement Eligibility	Average Final Compensation ("AFC")	Defined Benefit – Retirement Benefits Multiplier
Municipal (Plan Y)	Age 60 and 10 years of credited service[(1)]	Average of three highest calendar or anniversary years	• (2.2% x AFC x years of service up to 10 years) plus (2.0% x AFC x numbers of years in excess of 10 years), subject to a maximum of 100% of AFC
Police and Fire	Age 50 and 10 years of credited service[(1)]	Average of two highest calendar or anniversary years	• (2.2% x AFC x years of service up to 20 years) plus (2.0% x AFC x numbers of years in excess of 20 years), subject to a maximum of 100% of AFC
Elected Official (Plan L)	Age 55 and 10 years of credited service[(2)]	Average of three highest calendar or anniversary years	• 3.5% x AFC x years of service, subject to a maximum of 100% of AFC

Plan 10	Normal Retirement Eligibility	Average Final Compensation ("AFC")	Defined Benefit – Retirement Benefits Multiplier
Municipal[(3)]	Age 60 and 10 years of credited service	Average of five highest calendar or anniversary years	• 1.25% x AFC x years of service up to 20 years
Police and Fire	Age 50 and 10 years of credited service	Average of five highest calendar or anniversary years	• 1.75% x AFC x years of service up to 20 years - **Defined Contribution** • The City matches employee contributions at a 50% rate, with the total City match not to exceed 1.5% of compensation for each year. • After five years of credited service, the full amount in the account is distributed to the employee when he or she separates from City service. • The right to the portion of the account attributable to City contributions does not vest until the completion of five years of credited service.

(1) Five years of credited service for those who make additional contributions. See "PENSION SYSTEM – Pension System; Pension Board – Membership."

(2) The lesser of two full terms or eight years of credited service for those elected officials who make additional contributions. See "PENSION SYSTEM – Pension System; Pension Board – Membership."

(3) Under Plan 10 (Municipal), pension contributions freeze after 20 years. At such time and for each subsequent year, the employee's pension payments remain fixed and the employee may no longer make pension contributions.

As part of the new collective bargaining agreement for AFSCME DC 33, the City and AFSCME DC 33 have agreed on a new, stacked hybrid pension plan for new municipal employees represented by AFSCME DC 33 ("Plan 16"). Plan 16 includes a defined benefit and defined contribution component. The defined benefit is applied to annual earnings up to $50,000. Employees with annual salaries over $50,000 may voluntarily participate in the defined contribution portion. The City will match a portion of an eligible employee's voluntary contributions up to a cap of 1.5% of annual compensation. Current municipal employees represented by AFSCME DC 33 will pay a tiered employee pension contribution rate based on their pay range. Starting at an annual salary of $45,000, the tiered structure is progressive so that higher earning employees will contribute at a higher rate.

Purchase of Services

The following table shows the City's major purchase of services, which represents one of the major classes of expenditures from the General Fund. Table 20 shows contracted costs of the City for Fiscal Years 2013-2017 and the budgeted amounts and current estimates for Fiscal Year 2018.

Table 20
Purchase of Services in the General Fund
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Amounts in Millions of USD)[(1), (7)]

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Unaudited Actual 2017	Adopted Budget 2018	Current Estimate 2018
Human Services[(2)]	$67.5	$76.3	$77.3	$75.3	$75.7	$77.4	$76.3
Public Health	63.0	60.5	59.4	64.9	70.7	70.7	70.7
Public Property[(3)]	139.5	140.7	148.8	155.0	158.5	161.6	161.6
Streets[(4)]	40.5	48.3	47.6	51.9	46.2	49.7	48.6
First Judicial District	16.5	15.8	17.1	17.7	-	-	-
Licenses & Inspections	7.1	10.1	10.0	10.4	-	-	-
Homeless Services[(5)]	34.2	36.9	36.6	37.1	-	-	-
Prisons	105.4	105.8	101.6	104.9	-	-	-
All Other[(6)]	284.1	293.2	312.2	305.0	500.4	575.7	579.6
Total	**$757.8**	**$787.6**	**$810.6**	**$822.2**	**$851.4**	**$935.1**	**$936.8**

(1) Sources: For Fiscal Years 2013-2016, the City's Supplemental Report of Revenues & Obligations for such Fiscal Years. For Fiscal Years 2017-2018, the First Quarter QCMR. The detailed breakdown of the other subcategories for Fiscal Years 2017 and 2018 will be available upon the release of the City's Supplemental Report of Revenues & Obligations for such Fiscal Years.
(2) Includes payments for care of dependent and delinquent children.
(3) Includes payments for SEPTA, space rentals, and utilities.
(4) Includes solid waste disposal costs.
(5) Includes homeless shelter and boarding home payments.
(6) Includes the Convention Center subsidy, payments for vehicle leasing, and debt service on lease and service agreement financings, among other things.
(7) Figures may not sum due to rounding.

City Payments to School District

In each Fiscal Year since Fiscal Year 1996, the City has made an annual grant of at least $15 million to the School District. Pursuant to negotiations with the Commonwealth to address the School District's then current and future educational and fiscal situation, the Mayor and City Council agreed to provide the School District with an additional $20 million annual grant beginning in Fiscal Year 2002. The following table presents the City's payments to the School District from the General Fund for Fiscal Years 2013-2017 and the budgeted amount and current estimate for Fiscal Year 2018.

Table 21
City Payments to School District
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Amounts in Millions of USD)[1]

	Actual 2013[2]	Actual 2014[3]	Actual 2015	Actual 2016	Unaudited Actual 2017	Adopted Budget and Current Estimate 2018
City Payments to School District	$68.9	$114.1	$69.1	$104.2	$104.3	$104.3

(1) Sources: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the FY 2017 AFR (Unaudited). For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the First Quarter QCMR.
(2) The City's contribution included a budgeted contribution of $48.9 million and an additional contribution of $20 million, which was derived from an increase in the Real Estate Tax rate.
(3) In Fiscal Year 2014, the City's contribution included a budgeted contribution of $69.1 million and an additional $45.1 million one-time contribution that was passed through from the Commonwealth.

In Fiscal Year 2014, the City also issued, through PAID, $27.3 million of bonds for the benefit of the School District. In Fiscal Year 2015, the City issued, through PAID, $57.5 million of bonds for the benefit of the School District and to refund the bonds issued in Fiscal Year 2014. The bond proceeds paid to the School District are not subject to the maintenance of effort described below.

The City's adopted Fiscal Year 2016 budget included a property tax increase and parking tax increase to benefit the School District in amounts of $25 million and $10 million, respectively, which are included in the $104.2 million for Fiscal Year 2016 and the $104.3 million for Fiscal Year 2017 reflected in Table 21 above. Both the $25 million and the $10 million are City revenues collected by the City and then granted to the School District. Each year in the Revised Twenty-Sixth Five-Year Plan reflects these increases in tax revenues, as well as the related expense of the grant to the School District; therefore, these amounts are already part of the City's General Fund balance calculation.

Section 696 of the School Code imposes on the City a maintenance of effort obligation with respect to the School District. For so long as the School District remains subject to a declaration of "distress" by the Secretary of Education, the City is obligated to continue (i) paying over to the School District each year an amount at least equal to the amount paid over to the School District in the previous year and (ii) authorizing for the School District tax rates at least equal to the rates of taxation authorized by the City for the School District in the previous year. The School District was declared distressed effective December 22, 2001, and such declaration continues to be in effect. See "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Local Government Agencies – *Mayoral-Appointed or Nominated Agencies* – The School District."

For a discussion of changes and proposed changes in the funding provided by the City to the School District, see "REVENUES OF THE CITY – Sales and Use Tax." For a discussion of the transition to

AVI, see "REVENUES OF THE CITY – Real Property Taxes Assessment and Collection." For a discussion of the Mayor's proposal to return governance of the School District to a Board of Education appointed by the Mayor, see "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Local Government Agencies – *Mayoral-Appointed or Nominated Agencies* – The School District," above.

City Payments to SEPTA

SEPTA operates a public transportation system within the City and Bucks, Chester, Delaware, and Montgomery counties. SEPTA's operating budget is supported by federal, Commonwealth, and local subsidies, including payments from the City. The following table presents the City's payments to SEPTA from the General Fund for Fiscal Years 2013-2017 and the budgeted amount and current estimate for Fiscal Year 2018.

Table 22
City Payments to SEPTA
Fiscal Years 2013-2016 (Actual), 2017 (Unaudited Actual), and 2018 (Adopted Budget and Current Estimate)
(Amounts in Millions of USD)[1]

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Unaudited Actual 2017	Adopted Budget and Current Estimate 2018
City Payment to SEPTA	$65.2	$66.0	$70.4	$74.2	$79.7	$82.7

(1) Sources: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the First Quarter QCMR. For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the First Quarter QCMR.

The City budgets operating subsidies each Fiscal Year to match the estimated operating subsidies of the Commonwealth under Act 89. The state operating subsidy is funded through the Pennsylvania Public Transportation Trust Fund as created by Act 44 of 2007, amended by Act 89 of 2013. The local match requirement for Fiscal Years 2017-2022 has been calculated to match state operating subsidies. In addition, local matching funds must be appropriated each Fiscal Year in which state funds are received in order for SEPTA to receive the full allocation of state funds. The Revised Twenty-Sixth Five-Year Plan projects annual operating subsidy payments to SEPTA from the City will increase to $99.7 million by Fiscal Year 2022.

City Payments to Convention Center Authority

In connection with the financing of the expansion to the Pennsylvania Convention Center and the refinancing of debt for the original Pennsylvania Convention Center construction, the Commonwealth, the City, and the Convention Center Authority entered into an operating agreement in 2010 (the "Convention Center Operating Agreement"). The Convention Center Operating Agreement provides for the operation of the Convention Center by the Convention Center Authority and includes an annual service fee of $15,000,000 from the City to the Convention Center Authority in each Fiscal Year through Fiscal Year 2040.

As authorized by ordinance, the City has agreed to pay to the Convention Center Authority on a monthly basis a certain percentage of hotel room taxes and hospitality promotion taxes collected during the term of the Convention Center Operating Agreement. The remaining percentages of such taxes are paid to the City's tourism and marketing agencies. The General Fund does not retain any portion of the proceeds of the hotel room rental tax or the hospitality promotion tax.

PENSION SYSTEM

The amounts and percentages set forth under this heading relating to the City's pension system, including, for example, actuarial liabilities and funded ratios, are based upon numerous demographic and economic assumptions, including the investment return rates, inflation rates, salary increase rates, post-retirement mortality, active member mortality, rates of retirement, etc. The reader is cautioned to review and carefully consider the assumptions set forth in the documents that are cited as the sources for the information in this section. In addition, the reader is cautioned that such sources and the underlying assumptions speak as of their respective dates, and are subject to changes, any of which could cause a significant change in the unfunded actuarial liability.

Overview

The City faces significant ongoing financial challenges in meeting its pension obligations, including an unfunded actuarial liability ("UAL") of approximately $6.1 billion as of July 1, 2016. In Fiscal Year 2016, the City's contribution to the Municipal Pension Fund was approximately $660.2 million, of which the General Fund's share (including the Commonwealth contribution) was $512.2 million. See Table 29. The City's aggregate pension costs (consisting of payments to the Municipal Pension Fund and debt service on the Pension Bonds (as defined herein)) have increased from approximately 10.15% of the City's General Fund budget to approximately 13.93% of the General Fund budget from Fiscal Years 2007 to 2016. See Table 31. As reflected in the Funded Ratio chart following Table 28, the funded ratio of the Municipal Pension Plan was 50.0% on July 1, 1997 (at which time the UAL was approximately $2.7 billion), and was 44.8% on July 1, 2016.

The decline in the Municipal Pension System's funded status and the net growth of the unfunded liability is the product of a number of factors, including the following:

- The declines in the equity markets in 2000-2001 and in 2008-2009. See Table 24 and the Funded Ratio chart below Table 28.

- A reduction in the assumed rate of return, from 9.00% in 2004 to 7.70% effective July 1, 2016. Although the gradual reductions in the assumed rates of return reflected in Table 24 are considered a prudent response to experience studies, by reducing the assumed return in the measurement of the actuarial liabilities, it serves to increase the UAL from what it otherwise would have been.

- Adopting more conservative mortality rates in response to experience studies performed by the Municipal Pension Plan actuary.

- The Municipal Pension Plan is a mature system, which means the number of members making contributions to the Municipal Pension Plan is less than the number of retirees and other beneficiaries receiving payments from the Municipal Pension Plan, by approximately 9,500. As a result, the aggregate of member contributions and the City's contributions are less than the amount of benefits and refunds payable in any particular year, with the result that investment income must be relied upon to meet such difference before such income can contribute to an increase in the Municipal Pension System's assets growth. See Table 26.

- The determination by the City, commencing in Fiscal Year 2005, to fund in accordance with the "minimum municipal obligation" ("MMO"), as permitted and as defined by Pennsylvania law, in lieu of the City Funding Policy (as defined herein), resulted in the City contributing less than otherwise would have been contributed. See below, "– Funding Requirements; Funding Standards."

- Revising, in Fiscal Year 2009, in accordance with Pennsylvania law, the period over which the UAL was being amortized, such that the UAL as of July 1, 2009 was "fresh started" to be amortized over a 30 year period ending June 30, 2039. In addition, changes were made to the periods over which actuarial gains and losses and assumption changes were amortized under Pennsylvania law. See "UAL and its Calculation – Actuarial Valuations."

The City has taken a number of steps to address the funding of the Municipal Pension Plan, including the following:

- Reducing the assumed rate of return on a gradual and consistent basis, which results in the City making larger annual contributions. See Table 24 below.

- Adopting more conservative mortality rates in response to experience studies performed by the Municipal Pension Plan actuary.

- In conjunction with the revisions to the amortization periods that occurred in Fiscal Year 2009, changing from a level percent of pay amortization schedule to a level dollar amount schedule. This results in producing payments that ensure that a portion of principal on the UAL is paid each year.

- Funding consistently an amount greater than the MMO (subject to the authorized deferrals for Fiscal Years 2010 and 2011 described below).

- Negotiating collective bargaining agreements by which additional contributions are being made (and will be made) by certain current (and future) members and by which benefits will be capped for certain future members of the Municipal Pension Plan. See Table 18.

- Securing additional funding, including funds required to be deposited by the City to the Municipal Pension Fund from its share of future sales tax revenue.

This "Overview" is intended to highlight certain of the principal factors that led to the pension system's current funded status, and significant steps the City and the Pension Board have taken to address the underfunding. The reader is cautioned to review with care the more detailed information presented below under this caption, "PENSION SYSTEM."

Pension System; Pension Board

The City maintains two defined-benefit pension programs: (i) the Municipal Pension Plan, a single employer plan, which provides benefits to police officers, firefighters, non-uniformed employees, and non-represented appointed and elected officials, and (ii) the PGW Pension Plan, a single employer plan, which provides benefits to PGW employees. The Municipal Pension Plan is administered through 18 separate benefit structures, the funding for which is accounted for on a consolidated basis by the Municipal Pension Fund. The 18 benefit structures establish for their respective members different contribution levels, retirement ages, etc., but all assets are available to pay benefits to all members of the Municipal Pension Plan. The Municipal Pension Plan is a mature plan, initially established in 1915, with investment assets that totaled approximately $4.4 billion as of June 30, 2016. The Municipal Pension Plan has approximately 28,300 members who make contributions to the plan, and provides benefits to approximately 37,800 retirees and other beneficiaries.

PGW is principally a gas distribution facility owned by the City. For accounting presentation purposes, PGW is a component unit of the City and follows accounting rules as they apply to proprietary fund-type activities. The PGW Pension Plan is funded with contributions by PGW to such plan, which are treated as an operating expense of PGW, and such plan is not otherwise addressed under the caption "PENSION SYSTEM." See "PGW PENSION PLAN" below.

Contributions are made by the City to the Municipal Pension Fund from: (i) the City's General Fund; (ii) funds that are received by the City from the Commonwealth for deposit into the Municipal Pension Fund; and (iii) various City inter-fund transfers, representing amounts contributed, or reimbursed, to the City's General Fund for pensions from the City's Water Fund, Aviation Fund, and certain other City funds or agencies. See Table 29. In addition to such City (employer) contribution, the other principal additions to the Municipal Pension Fund are: (i) member (employee) contributions; (ii) interest and dividend income; (iii) net appreciation in asset values; and (iv) net realized gains on the sale of investments. See Table 26 below. An additional source of funding is that portion of the 1% Sales Tax rate increase that is required under Pennsylvania law to be deposited to the Municipal Pension Fund. See "REVENUES OF THE CITY – Sales and Use Tax."

The City of Philadelphia Board of Pensions and Retirement (the "Pension Board") was established by the City Charter to administer "a comprehensive, fair and actuarially sound pension and retirement system covering all officers and employees of the City." The City Charter provides that the Pension Board "shall consist of the Director of Finance, who shall be its chairman, the Managing Director, the City Controller, the City Solicitor, the Personnel Director and four other persons who shall be elected to serve on the Board by the employees in the civil service in such manner as shall be determined by the Board." In addition, there is one non-voting member on the Pension Board, who is appointed by the President of City Council. An Executive Director, together with a staff of 73 personnel, administers the day-to-day activities of the retirement system, providing services to approximately 66,200 members.

The Municipal Pension Plan, the Municipal Pension Fund, and the Pension Board are for convenience sometimes collectively referred to under this caption as the "Municipal Retirement System."

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Membership. The following table shows the membership totals for the Municipal Pension Plan, as of July 1, 2016 and as compared to July 1, 2015.

Table 23
Municipal Pension Plan – Membership Totals

	July 1, 2016	July 1, 2015	% Change
Actives	28,308	27,951	1.3%
Terminated Vesteds	1,248	1,334	-6.4%
Disabled	4,005	4,016	-0.3%
Retirees	22,412	22,245	0.8%
Beneficiaries	8,567	8,566	0.0%
Deferred Retirement Option Plan ("DROP")	1,614	1,784	-9.5%
Total City Members	66,154	65,896	0.4%
Annual Salaries	$1,676,548,962	$1,597,848,869	4.9%
Average Salary per Active Member	$59,225	$57,166	3.6%
Annual Retirement Allowances	$741,828,339	$719,580,951	3.1%
Average Retirement Allowances	$21,205	$20,662	2.6%

Source: July 1, 2016 Valuation.

As shown in Table 23, total membership in the Municipal Pension Plan increased by 0.4%, or from 65,896 to 66,154 members, from July 1, 2015 to July 1, 2016, including an increase of 1.3% in active members from 27,951 to 28,308 (who were contributing to the Municipal Pension Fund). Of the 66,154 members, 37,846 were retirees, beneficiaries, disabled, and other members (who were withdrawing from, or not contributing to, the Municipal Pension Fund).

Subject to the exceptions otherwise described in this paragraph, employees and officials become vested in the Municipal Pension Plan upon the completion of ten years of service. Employees and appointed officials who hold positions that are exempt from civil service and who are not entitled to be represented by a union, and who were hired before January 13, 1999, may elect accelerated vesting after five years of service in return for payment of a higher employee contribution than if the vesting period were ten years. Such employees and officials hired after January 13, 1999, become vested after five years of service and pay a higher employee contribution than if the vesting period were ten years. Elected officials become vested in the Municipal Pension Plan once they complete service equal to the lesser of two full terms in their elected office or eight years and pay a higher contribution than if the vesting period were ten years. Elected officials pay an additional employee contribution for the full cost of the additional benefits they may receive over those of general municipal employees. Upon retirement, employees and officials may receive up to 100% of their average final compensation depending upon their years of credited service and the plan in which they participate.

All City employees participate in the U.S. Social Security retirement system except for uniformed Police and uniformed Fire employees.

Certain membership information relating to the City's municipal retirement system provided by the Pension Board is set forth in Appendix A to the July 1, 2016 Actuarial Valuation Report (the "July 1, 2016 Valuation") and includes as of July 1, 2016, among other information, active and non-active member data by plan, age/service distribution for active participants and average salary for all plans, and age and benefit distributions for non-active member data.

Funding Requirements; Funding Standards

City Charter. The City Charter establishes the "actuarially sound" standard quoted above. Case law has interpreted "actuarially sound" as used in the City Charter to require the funding of two components: (i) "normal cost" (as defined below) and (ii) interest on the UAL. (*Dombrowski v. City of Philadelphia*, 431 Pa. 199, 245 A.2d 238 (1968)).

Pennsylvania Law. The Municipal Pension Plan Funding Standard and Recovery Act (Pa. P.L. 1005, No. 205 (1984)) ("Act 205"), applies to all municipal pension plans in Pennsylvania, "[n]otwithstanding any provision of law, municipal ordinance, municipal resolution, municipal charter, pension plan agreement or pension plan contract to the contrary . . . ." Act 205 provides that the annual financial requirements of the Municipal Pension Plan are: (i) the normal cost; (ii) administrative expense requirements; and (iii) an amortization contribution requirement. In addition, Act 205 requires that the MMO be payable to the Municipal Pension Fund from City revenues, and that the City shall provide for the full amount of the MMO in its annual budget. The MMO is defined as "the financial requirements of the pension plan reduced by . . . the amount of any member contributions anticipated as receivable for the following year." Act 205 further provides that the City has a "duty to fund its municipal pension plan," and the failure to provide for the MMO in its budget, or to pay the full amount of the MMO, may be remedied by the institution of legal proceedings for mandamus.

In accordance with Pennsylvania law and Act 205, the City uses the entry age normal actuarial funding method, whereby "normal cost" (associated with active employees only) is the present value of the benefits that the City expects to become payable in the future distributed evenly as a percent of expected payroll from the age of first entry into the plan to the expected age at retirement. The City's share of such normal cost (to which the City adds the Plan's administrative expenses) is reduced by member contributions. The term "level" means that the contribution rate for the normal cost, expressed as a percentage of active member payroll, is expected to remain relatively level over time.

The City has budgeted and paid at least the full MMO amount since such requirement was established, and more specifically, prior to Fiscal Year 2005 the City had been contributing to the Municipal Pension Plan the greater amount as calculated pursuant to the City Funding Policy which was implemented before Act 205 was effective, as described below. Payment of the MMO is a condition for receipt of the Commonwealth contribution to the Municipal Pension Fund. See Table 29.

Act 205 was amended in 2009 by Pa. P.L. 396, No. 44 ("Act 44") to authorize the City to: (i) "fresh start" the amortization of the UAL as of July 1, 2009 by a level annual dollar amount over 30 years ending June 30, 2039; and (ii) revise the amortization periods for actuarial gains and losses and assumption changes in accordance with Act 44, as described below under "UAL and its Calculation – Actuarial Valuations." In addition, Act 44 authorized the City to defer, and the City did defer, $150 million of the MMO otherwise payable in Fiscal Year 2010, and $80 million of the MMO otherwise payable in Fiscal Year 2011, subject to repayment of the deferred amounts by June 30, 2014. The City repaid the aggregate deferred amount of $230 million, together with interest at the then-assumed interest rate of 8.25%, in Fiscal Year 2013. See Table 29. Because the final amortization date is fixed, if all actuarial assumptions are achieved, the unfunded liability would decline to zero as of the final amortization date. To the extent future experience differs from the assumptions used to establish the 30-year fixed amortization payment schedule, new amortization bases attributable to a particular year's difference would be established and amortized over their own 20-year schedule.

GASB; City Funding Policy. Governmental Accounting Standards Board ("GASB") Statement No. 27, "Accounting for Pensions by State and Local Governmental Employers" ("GASB 27"), applied to the City for Fiscal Years beginning prior to July 1, 2014. For the Fiscal Year beginning July 1, 2014, GASB Statement No. 68 ("GASB 68"), which amends GASB 27 in several significant respects, applies. GASB 27 defined an "annual required contribution" ("ARC") as that amount sufficient to pay (i) the normal cost and (ii) the amortization of UAL, and provides that the maximum acceptable amortization period is 30 years (for the initial 10 years of implementation, 1996-2006, a 40-year amortization period was permitted). GASB 27 did not establish funding requirements for the City but rather was an accounting and financial reporting standard. GASB 68 does not require the calculation of an ARC but does require the City to include as a liability on its balance sheet the City's "net pension liability," as defined by GASB 68. The City has been funding the Municipal Pension Fund since Fiscal Year 2003 based on the MMO (at a minimum), including the deferral permitted by Act 44. See Table 29 below.

The City, prior to Fiscal Year 2005, had been funding the Municipal Pension Fund in accordance with what the City referred to as the "City Funding Policy." That reference was used and continues to be used in the Actuarial Reports. Under the City Funding Policy, the UAL as of July 1, 1985 was to be amortized over 34 years ending June 30, 2019, with payments increasing at 3.3% per year, the assumed payroll growth. Other changes in the actuarial liability were amortized in level-dollar payments over various periods as prescribed in Act 205. In 1999, the City issued pension funding bonds, the proceeds of which were deposited directly into the Municipal Pension Fund to pay down its UAL. See "Annual Contributions – *Annual Debt Service Payments on the Pension Bonds*" below.

<u>Revenue Recognition Policy</u>. The City follows a policy (the "Revenue Recognition Policy") to contribute each year to the Municipal Pension Fund an amount in excess of the MMO. The determination for such additional funding is based on not including (i) the portion of the amounts generated by the increase in the Sales Tax rate that became effective on July 1, 2014 and are required by Act 205 to be deposited to the Municipal Pension Fund (see "Revenues of the City – Sales and Use Tax"), and (ii) contributions to be made by City employees that are under Plan 16 (described above in the text that immediately follows Table 19) in the actuarial asset value when determining the annual contribution obligation.

The amounts projected by the City in the Revised Twenty-Sixth Five Year Plan to be deposited from Sales Tax revenue into the Municipal Pension Fund, for the six Fiscal Years 2017-2022, respectively, are as follows: $18.3 million; $24.0 million; $44.6 million; $49.9 million; $54.9 million; and $59.8 million. (These revenue estimates reflect updates made since the data cutoff for performing the July 1, 2016 Valuation. Compare to the amounts under "Sales Tax Contribution" in the first table under the subsection "Actuarial Projections of Funded Status.")

UAL and its Calculation

According to the July 1, 2016 Valuation, the funded ratio (the valuation of assets available for benefits to total actuarial liability) of the Municipal Pension Fund as of July 1, 2016 was 44.8% and the Municipal Pension Fund had an unfunded actuarial liability ("UAL") of $6.089 billion. The UAL is the difference between total actuarial liability ($11.025 billion as of July 1, 2016) and the actuarial value of assets ($4.936 billion as of July 1, 2016).

<u>Key Actuarial Assumptions</u>. In accordance with Act 205, the actuarial assumptions must be, in the judgment of both Cheiron (the independent consulting actuary for the Municipal Pension Fund) and the City, "the best available estimate of future occurrences in the case of each assumption." The assumed investment return rate used in the July 1, 2016 Valuation was 7.70% a year (which includes an inflation assumption of 2.75%), net of administrative expenses, compounded annually. For the prior actuarial valuation, the assumed investment return rate was 7.75%. See Table 24 for the assumed rates of return for Fiscal Years 2007 to 2016. The 7.75% was used to establish the MMO payment for Fiscal Year 2017; 7.70% will be used to establish the MMO payment for Fiscal Year 2018.

Other key actuarial assumptions in the July 1, 2016 Valuation include the following: (i) total annual payroll growth of 3.30%, (ii) annual administrative expenses assumed to increase 3.30% per year, (iii) to recognize the expense of the benefits payable under the Pension Adjustment Fund, actuarial liabilities were increased by 0.54%, based on the statistical average expected value of the benefits, (iv) a vested employee who terminates will elect a pension deferred to service retirement age so long as their age plus years of service at termination are greater than or equal to 55 (45 for police and fire employees), (v) for municipal and elected members, 70% of all disabilities are ordinary and 30% are service-connected, and (vi) for police and fire members, 50% of all disabilities are ordinary and 50% are service-connected.

"Smoothing Methodology". The Municipal Retirement System uses an actuarial value of assets to calculate its annual pension contribution, using an asset smoothing method to dampen the volatility in asset values that could occur because of fluctuations in market conditions. The Municipal Retirement System used a five-year smoothing prior to Fiscal Year 2009, and beginning with Fiscal Year 2009 began employing a ten-year smoothing. Using the ten-year smoothing methodology, investment returns in excess or below the assumed rate are prospectively distributed in equal amounts over a ten-year period, subject to the requirement that the actuarial value of assets will be adjusted, if necessary, to ensure that the actuarial value of assets will never be less than 80% of the market value of the assets, nor greater than 120% of the market value of the assets. The actuarial value of assets as of July 1, 2016, was approximately 113.5% of the market value of the assets.

Actuarial Valuations. The Pension Board engages an independent consulting actuary (currently Cheiron) to prepare annually an actuarial valuation report. Act 205, as amended by Act 44, establishes certain parameters for the actuarial valuation report, including: (i) use of the entry age normal actuarial cost method; (ii) that the report shall contain: (a) actuarial exhibits, financial exhibits, and demographic exhibits; (b) an exhibit of normal costs expressed as a percentage of the future covered payroll of the active membership in the Municipal Pension Plan; and (c) an exhibit of the actuarial liability of the Municipal Pension Plan; and (iii) that changes in the actuarial liability be amortized in level-dollar payments as follows: (a) actuarial gains and losses be amortized over 20 years beginning July 1, 2009 (prior to July 1, 2009, gains and losses were amortized over 15 years); (b) assumption changes be amortized over 15 years beginning July 1, 2010 (prior to July 1, 2010, assumption changes were amortized over 20 years); (c) plan changes for active members be amortized over 10 years; (d) plan changes for inactive members be amortized over one year; and (e) plan changes mandated by the Commonwealth be amortized over 20 years.

Act 205 further requires that an experience study be conducted at least every four years, and cover the five-year period ending as of the end of the plan year preceding the plan year for which the actuarial valuation report is filed. The most recent Experience Study was prepared by Cheiron in March 2014 for the period July 1, 2008 – June 30, 2013. The changes to the actuarial and demographic assumptions that were adopted by the Pension Board in response to such Experience Study have been employed since the July 1, 2014 Valuation. The principal revisions included marginal changes in salary growth rates; changes in retirement assumptions (increase for those under the pension plan the City established in 1967; decrease for those under the pension plan the City established in 1987); increase in the expected disability rates for police and fire employees; and changes in mortality assumptions to fully reflect the most recent experience. Details of these assumption changes and the experience of the Municipal Pension Plan can be found in the *City of Philadelphia Municipal Retirement System Experience Study Results and Recommendations For the period covering July 1, 2008 – June 30, 2013,* available at the Investor Information section of the City's Investor Website.

Pension Adjustment Fund

Pursuant to § 22-311 of the Philadelphia Code, the City directed the Pension Board to establish a Pension Adjustment Fund ("PAF") on July 1, 1999, and further directed the Pension Board to determine, effective June 30, 2000 and each Fiscal Year thereafter, whether there are "excess earnings" as defined available to be credited to the PAF. The Pension Board's determination is to be based upon the actuary's certification using the "adjusted market value of assets valuation method" as defined in § 22-311. Although the portion of the assets attributed to the PAF is not segregated from the assets of the Municipal Pension Fund, the Philadelphia Code provides that the "purpose of the Pension Adjustment Fund is for the distribution of benefits as determined by the Board for retirees, beneficiaries or survivors [and] [t]he Board shall make timely, regular and sufficient distributions from the Pension Adjustment Fund in order to maximize the benefits of retirees, beneficiaries or survivors." Distributions are to be made "without delay" no later than six months after the end of each Fiscal Year. The PAF was established, in part, because the Municipal Retirement System does not provide annual cost-of-living increases to retirees or beneficiaries. At the time the PAF was established, distributions from the PAF were subject to the restriction that the actuarial funded ratio using the "adjusted market value of assets" be not less than such ratio as of July 1, 1999 (76.7%). That restriction was deleted in 2007 by an ordinance adopted by City Council; the Mayor vetoed such ordinance, and City Council overrode such veto.

The amount to be credited to the PAF is 50% of the "excess earnings" that are between one percent (1%) and six percent (6%) above the actuarial assumed investment rate. Earnings in excess of six percent (6%) of the actuarial assumed investment rate remain in the Municipal Pension Fund. Although the Pension Board utilizes a ten-year smoothing methodology, as explained above, for the actuarial valuation of assets for funding and determination of the MMO, § 22-311 provides for a five-year smoothing to determine the amount to be credited to the PAF. The actuary determined that for the Fiscal Year ended June 30, 2016, there were no "excess earnings" as defined to be credited to the PAF. The Pension Board transfers to the PAF the full amount calculated by the actuary as being available in any year for transfer within six months of the Pension Board designating the amount to be transferred.

Transfers to the PAF and the resultant additional distributions to retirees result in removing assets from the Municipal Pension Plan. To account for the possibility of such transfers, and as an alternative to adjusting the assumed investment return rate to reflect such possibility, the actuary applies a load of 0.54% to the calculated actuarial liability as part of the funding requirement and MMO. Such calculation was utilized for the first time in the July 1, 2013 actuarial valuation.

The market value of assets as used under this caption, "PENSION SYSTEM," represents the value of the assets if they were liquidated on the valuation date and this value includes the PAF (except as otherwise indicated in certain tables), although the PAF is not available for funding purposes. The actuarial value of assets does not include the PAF.

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Rates of Return; Asset Values; Changes in Plan Net Position

Rates of Return. The following table sets forth for the Fiscal Years 2007-2016 the market value of assets internal rate of return and actuarial value of assets internal rate of return experienced by the Municipal Pension Fund, and the assumed rate of return. The 5-year and 10-year annual average returns as of June 30, 2016, were 4.54% and 4.27%, respectively, on a market value basis.

Table 24
Municipal Pension Fund
Annual Rates of Return

Year Ending June 30,	Market Value	Actuarial Value[(1)]	Assumed Rate of Return
2007	17.0%	10.7%	8.75%
2008	-4.5%	10.1%	8.75%
2009	-19.9%	-9.3%	8.75%
2010	13.8%	12.9%	8.25%
2011	19.4%	9.9%	8.15%
2012	0.2%	2.4%	8.10%
2013	10.9%	5.1%	7.95%
2014	15.7%	4.8%	7.85%
2015	0.3%	5.8%	7.80%
2016	-3.2%	4.5%	7.75%

Source: July 1, 2016 Valuation.

(1) Net of PAF. See "Pension Adjustment Fund" above. The actuarial values for 2007-2008 reflect a five-year smoothing; for 2009-2016, a ten-year smoothing.

The preliminary estimates of the annual rates of return, on a market value basis, for the year ending June 30, 2017 is 12.9%, and for the three-month period ending September 30, 2017, is 3.5%.

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Asset Values. The following table sets forth as of the July 1 actuarial valuation date for the years 2007-2016 the actuarial and market values of assets in the Municipal Pension Fund and the actuarial value as a percentage of market value.

Table 25
Actuarial Value of Assets vs. Market Value of Net Assets
(Dollar Amounts in Millions of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets[1]	Market Value of Net Assets[1]	Actuarial Value as a Percentage of Market Value
2007	$4,421.7	$4,850.9	91.2%
2008	$4,623.6	$4,383.5	105.5%
2009	$4,042.1	$3,368.4	120.0%
2010[2]	$4,380.9	$3,650.7	120.0%
2011[2]	$4,719.1	$4,259.2	110.8%
2012[2]	$4,716.8	$4,151.8	113.6%
2013	$4,799.3	$4,444.1	108.0%
2014	$4,814.9	$4,854.3	99.2%
2015	$4,863.4	$4,636.1	104.9%
2016	$4,936.0	$4,350.8	113.5%

Source: July 1, 2016 Valuation for Actuarial Value of Assets; 2007-2016 Actuarial Reports for Market Value of Net Assets.

(1) For purposes of this table, the Market Value of Net Assets excludes the PAF, which as of June 30, 2016 equaled $7.223 million. The Actuarial Value of Assets excludes that portion of the Municipal Pension Fund that is allocated to the PAF. The actuarial values for 2007-2008 reflect a five-year smoothing; for 2009-2016, a ten-year smoothing.

(2) The July 1, 2010 actuarial and market values of assets include the $150 million deferred contribution from Fiscal Year 2010, and the July 1, 2011 and July 1, 2012 actuarial and market values of assets include the total deferred contribution of $230 million. See Table 29 below.

Changes in Plan Net Position. The following table sets forth for the Fiscal Years 2012-2016, the additions, including employee (member) contributions, City contributions (including contributions from the Commonwealth), investment income and miscellaneous income, and deductions, including benefit payments and administration expenses, for the Municipal Pension Fund. Debt service payments on pension funding bonds (as described below at "Annual Contributions – *Annual Debt Service Payments on the Pension Bonds*") are made from the City's General Fund, Water Operating Fund, and Aviation Operating Fund, but are not made from the Municipal Pension Fund, and therefore are not included in Table 26. In those years in which the investment income is less than anticipated, the Municipal Pension Fund may experience negative changes (total deductions greater than total additions), which, as the table reflects, did occur in Fiscal Year 2012. Furthermore, if unrealized gains are excluded from Table 26, resulting in a comparison of cash actually received against actual cash outlays, it results in a negative cash flow in each year, which is typical of a mature retirement system.

Contributions from the Commonwealth are provided pursuant to the provisions of Act 205. Any such contributions are required to be used to defray the cost of the City's pension system. The amounts contributed by the Commonwealth for each of the last ten Fiscal Years are set forth in Table 29 below. The contributions from the Commonwealth are capped pursuant to Act 205, which provides that "[n]o municipality shall be entitled to receive an allocation of general municipal pension system State aid in an amount greater that 25% of the total amount of the general municipal pension system State aid available."

Employee (member) contribution amounts reflect contribution rates as a percent of pay, which for the plan year beginning July 1, 2017, vary from 5.00% to 6.00% for police and fire employees, and from 3.10% to 7.00% for municipal employees excluding elected officials. These rates include the increases in contributions for certain municipal employees and elected officials currently in Plans 67, 87 and 87 Prime and elected officials as required by legislation. This legislation called for employees in these groups to pay an additional 0.5% of compensation from January 1, 2015 to December 31, 2015 and an additional 1.0% from January 1, 2016 onwards. New employees in these groups entering Plan 87 Municipal prime will pay an additional 1.0% of compensation which is included in the table below.

Table 26
Changes in Net Position of the Municipal Pension Fund
Fiscal Years 2012-2016
(Amounts in Thousands of USD)

	2012	2013	2014	2015	2016
Beginning Net Assets (Market Value)[1]	$4,030,216	$3,922,817	$4,445,224	$4,916,705	$4,674,252
Additions					
- Member Contributions	49,979	49,614	53,722	58,658	67,055
- City Contributions[2]	556,031	781,823	553,179	577,195	660,247
- Investment Income[3]	13,297	442,667	677,380	11,790	(147,424)
- Miscellaneous Income[4]	1,224	3,134	4,089	2,049	1,742
Total	$620,531	$1,277,238	$1,288,370	$649,692	$581,620
Deductions					
- Benefits and Refunds	(712,684)	(746,490)	(808,597)	(881,666)	(889,343)
- Administration	(15,246)[5]	(8,341)	(8,292)	(10,479)	(8,554)
Total	$(727,930)	$(754,831)	$(816,889)	$(892,145)	$(897,897)
Ending Net Assets (Market Value)[6]	$3,922,817	$4,445,224	$4,916,705	$4,674,252	$4,357,975

Source: Municipal Pension Fund's audited financial statements.

(1) Includes the PAF, which is not available for funding purposes.

(2) City Contributions include pension contributions from the Commonwealth. See Table 29.

(3) Investment income is shown net of fees and expenses, and includes interest and dividend income, net appreciation (depreciation) in fair value of investments, and net gains realized upon the sale of investments.

(4) Miscellaneous income includes securities lending and other miscellaneous revenues.

(5) The $15.2 million is the number in the Fund's 2012 audited financial statements. However, it was subsequently determined that certain investment expenses had been misclassified as administration expenses. If those investment expenses were not included, the administration deduction for Fiscal Year 2012 would have been $8.5 million.

(6) For Fiscal Year 2012, does not include the $230 million total contribution receivable, which was paid back and is included in Fiscal Year 2013 in the "City Contributions" amount. See Table 29.

Funded Status of the Municipal Pension Fund

The following two tables set forth as of the July 1 actuarial valuation date for the years 2007-2016, the asset value, the actuarial liability, the UAL, the funded ratio, covered payroll and UAL, as a percentage of covered payroll for the Municipal Pension Fund on actuarial and market value bases, respectively.

Table 27
Schedule of Funding Progress (Actuarial Value)
(Dollar Amounts in Millions of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets[(1)] (a)	Actuarial Liability (b)	UAL (Actuarial Value) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
2007	$4,421.7	$8,197.2	$3,775.5	53.9%	$1,351.8	279.3%
2008	$4,623.6	$8,402.2	$3,778.7	55.0%	$1,456.5	259.4%
2009	$4,042.1	$8,975.0	$4,932.9	45.0%	$1,463.3	337.1%
2010	$4,380.9	$9,317.0	$4,936.1	47.0%	$1,421.2	347.3%
2011	$4,719.1[(2)]	$9,487.5	$4,768.4	49.7%	$1,371.3	347.7%
2012	$4,716.8[(2)]	$9,799.9	$5,083.1	48.1%	$1,372.2	370.4%
2013	$4,799.3	$10,126.2	$5,326.9	47.4%	$1,429.7	372.6%
2014	$4,814.9	$10,521.8	$5,706.9	45.8%	$1,495.4	381.6%
2015	$4,863.4	$10,800.4	$5,937.0	45.0%	$1,597.8	371.6%
2016	$4,936.0	$11,024.8	$6,088.8	44.8%	$1,676.5	363.2%

Source: July 1, 2016 Valuation.

(1) The July 1, 2010 Actuarial Value of Assets includes the $150 million deferred contribution from Fiscal Year 2010 and each of the July 1, 2011 and July 1, 2012 Actuarial Value of Assets includes the total deferred contribution of $230 million.

(2) Reflects the assumed rate of return on deferred contributions at the time of the deferral.

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Table 28
Schedule of Funding Progress (Market Value)
(Dollar Amounts in Millions of USD)

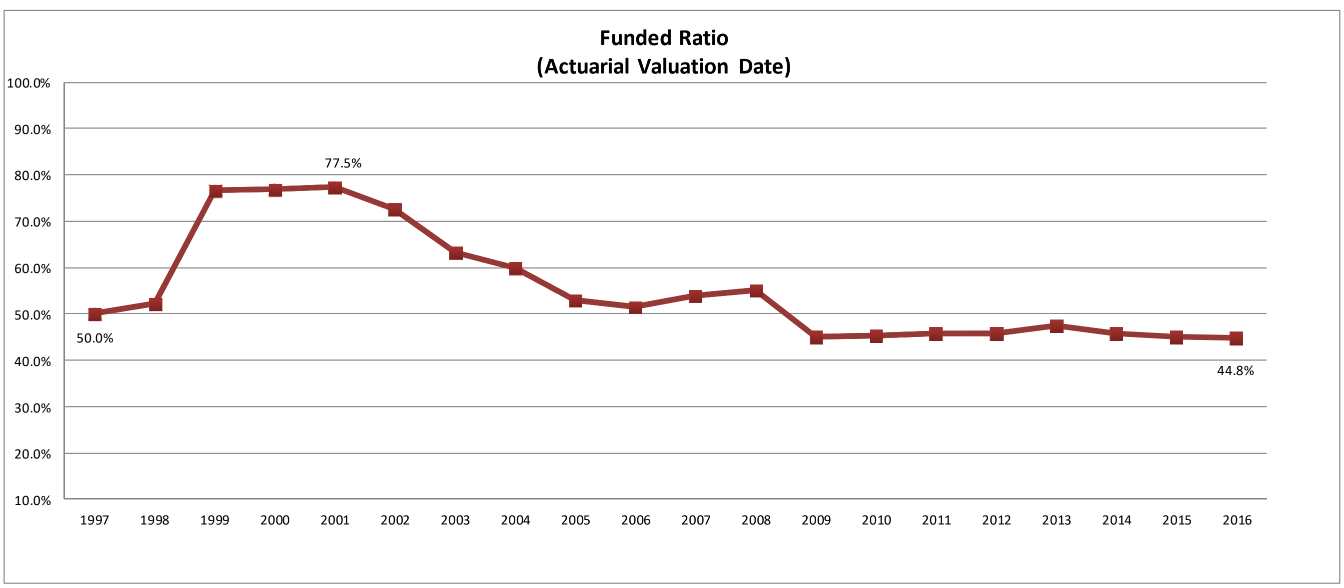
Actuarial Valuation Date (July 1)	Market Value of Net Assets[1] (a)	Actuarial Liability (b)	UAL (Market Value) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
2007	$4,850.9	$8,197.2	$3,346.3	59.2%	$1,351.8	247.5%
2008	$4,383.5	$8,402.2	$4,018.7	52.2%	$1,456.5	275.9%
2009	$3,368.4	$8,975.0	$5,606.6	37.5%	$1,463.3	383.2%
2010	$3,650.7	$9,317.0	$5,666.3	39.2%	$1,421.2	398.7%
2011	$4,259.2	$9,487.5	$5,228.3	44.9%	$1,371.3	381.3%
2012	$4,151.8	$9,799.9	$5,648.1	42.4%	$1,372.2	411.6%
2013	$4,444.1	$10,126.2	$5,682.1	43.9%	$1,429.7	397.4%
2014	$4,854.3	$10,521.8	$5,667.6	46.1%	$1,495.4	379.0%
2015	$4,636.1[2]	$10,800.4	$6,164.3	42.9%	$1,597.8	385.8%
2016	$4,350.8[2]	$11,024.8	$6,674.0	39.5%	$1,676.5	398.1%

Source: 2007-2016 Actuarial Valuation Reports.

(1) The July 1, 2010 Market Value of Net Assets includes the $150 million deferred contribution from Fiscal Year 2010 and each of the July 1, 2011 and July 1, 2012 Market Value of Net Assets includes the total deferred contribution of $230 million.

(2) For purposes of this table, the Market Value of Net Assets excludes the PAF, which as of June 30, 2015 equaled $38,198,762, and as of June 30, 2016 equaled $7,223,000.

The following chart reflects the funded ratios, using the actuarial value of assets, for the 20-year period 1997 – 2016.



Annual Contributions

Annual Municipal Pension Contributions

Table 29 shows the components of the City's annual pension contributions to the Municipal Pension Fund for the Fiscal Years 2007-2016.

Table 29
Total Contribution to Municipal Pension Fund
(Dollar Amounts in Millions of USD)

Fiscal Year	General Fund Contribution (A)	Commonwealth Contribution (B)	Aggregate General Fund Contribution (A+B)	Water Fund Contribution	Aviation Fund Contribution	Grants Funding and Other Funds Contribution[1]	Contributions from Quasi-governmental Agencies	Pension Bond Proceeds	Total Contribution (C)	MMO (D)	MMO (Deferred) Makeup Payments	% of MMO Contributed (C/D)
2007	$304.6	$57.7	$362.3	$31.5	$14.3	$11.2	$13.0	$0.0	$432.3	$400.3		108.0%
2008	$292.7	$59.6	$352.3	$32.4	$15.5	$12.2	$14.5	$0.0	$426.9	$412.4		103.5%
2009	$315.0	$59.6	$374.6	$36.4	$17.5	$11.5	$15.4	$0.0	$455.4	$438.5		103.9%
2010	$190.8[2]	$59.2	$250.0	$25.1	$11.6	$10.8	$15.1	$0.0	$312.6[2]	$447.4	$(150.0)[3]	100.0%[4]
2011	$325.8[2]	$61.8	$387.6	$37.7	$17.1	$13.6	$14.2	$0.0	$470.2[2]	$511.0	$(80.0)[3]	100.0%[4]
2012	$352.7	$95.0	$447.7	$43.8	$20.6	$27.4	$16.2	$0.0	$555.7	$507.0		109.7%
2013	$356.5	$65.7	$422.2	$41.4	$20.3	$27.2	$18.1	$252.6[3]	$781.8	$492.0	$230.0[3]	100.0%[4]
2014	$365.8	$69.6	$435.4	$45.5	$22.5	$30.0	$19.8	$0.0	$553.2	$523.4		105.7%
2015	$388.5	$62.0	$450.5	$48.3	$23.9	$33.4	$21.1	$0.0	$577.2	$556.0		103.8%
2016	$449.6	$62.6	$512.2	$55.1	$27.1	$34.8	$31.0	$0.0	$660.2	$595.0		110.0%

(1) Other Funds Contributions represents contributions to the Municipal Pension Fund from the City's Special Gasoline Tax Fund, Community Development Block Grant Fund, Municipal Pension Fund, Acute Care Hospital Assessment Fund, and General Capital Improvement Fund.

(2) Reflects the actual cash outlays for Fiscal Year 2010 and Fiscal Year 2011, which do not include the deferred contributions authorized pursuant to Act 44. See "– Funding Requirements; Funding Standards – Pennsylvania Law" above for a discussion of pension contribution deferrals authorized pursuant to Act 44.

(3) As authorized pursuant to Act 44, the City deferred payments to the Municipal Pension Fund of $150 million in fiscal year 2010 and $80 million in fiscal year 2011. Those amounts were repaid in fiscal year 2013, in which year the City made a contribution of $252.6 million to the Municipal Pension Fund, consisting of $230 million of proceeds of Pension Bonds that were issued in October 2012 and $22.6 million in refunding savings from a refunding Pension Bond financing in December 2012. See " – *Annual Debt Service Payments on the Pension Bonds*" below.

(4) Act 205 directs the Actuary, in performing the actuarial valuations, to disregard deferrals, and therefore for ease of presentation 100.0% is reflected in this column for both the years in which the deferrals occurred and the year in which the makeup payment was made.

Annual Debt Service Payments on the Pension Bonds

Pension funding bonds ("Pension Bonds") were issued in Fiscal Year 1999, at the request of the City, by PAID. Debt service on the Pension Bonds is payable pursuant to a Service Agreement between the City and PAID. The Service Agreement provides that the City is obligated to pay a service fee from its current revenues and the City covenanted in the agreement to include the annual amount in its operating budget and to make appropriations in such amounts as are required. If the City's revenues are insufficient to pay the full service fee in any Fiscal Year as the same becomes due and payable, the City has covenanted to include amounts not so paid in its operating budget for the ensuing Fiscal Year.

The 1999 Pension Bonds were issued in the principal amount of $1.3 billion, and the net proceeds were used, together with other funds of the City, to make a contribution in Fiscal Year 1999 to the Municipal Pension Fund in the amount of approximately $1.5 billion.

In October 2012, PAID, at the request of the City, issued Pension Bonds in the principal amount of $231.2 million, the proceeds of which were used principally to make the $230 million repayment of deferred contributions to the Municipal Pension Fund reflected in Table 29 above. These bonds had maturities of April 1, 2013 and 2014, and have been repaid.

In December 2012, PAID, at the request of the City, issued Pension Bonds in the approximate principal amount of $300 million, the proceeds of which were used to current refund a portion of the 1999 Pension Bonds. The refunding generated savings of approximately $22.6 million, which the City deposited into the Municipal Pension Fund.

Table 30 shows the components of the City's annual debt service payments on the Pension Bonds for the Fiscal Years 2007-2016.

Table 30
Total Debt Service Payments on Pension Bonds
(Amounts in Millions of USD)

Fiscal Year	General Fund Payment	Water Fund Payment	Aviation Fund Payment	Other Funds Payment[1]	Grants Funding	Total Payment
2007	$74.6	$7.2	$3.2	$0.5	$1.3	$86.8
2008	$78.4	$7.8	$3.5	$0.6	$1.3	$91.6
2009	$84.4	$7.2	$3.3	$0.6	$1.3	$96.8
2010	$96.7	$7.6	$3.4	$0.6	$1.5	$109.8
2011	$97.7	$10.3	$4.6	$0.8	$1.5	$114.9
2012	$100.1	$10.7	$4.8	$0.7	$3.4	$119.7
2013[2]	$196.6	$21.5	$10.1	$1.3	$3.8	$233.3
2014[2]	$211.0	$23.6	$11.2	$1.4	$3.7	$250.9
2015	$107.7	$12.6	$5.9	$0.8	$4.0	$131.0
2016	$109.9	$13.7	$6.4	$0.9	$3.8	$134.7

(1) Other Funds Payments represents the allocable portion of debt service payments on the City's Pension Bonds from the City's Special Gasoline Tax Fund, Community Development Block Grant Fund, Municipal Pension Fund, Acute Care Hospital Assessment Fund, and General Capital Improvement Fund.

(2) The increase in debt service payments in fiscal years 2013 and 2014 over the fiscal year 2012 amounts reflect the debt service payments on the Pension Bonds that were issued in October 2012.

Annual Pension Costs of the General Fund

Table 31 shows the annual pension costs of the General Fund for the Fiscal Years 2007-2016, being the sum of the General Fund Contribution to the Municipal Pension Fund (column (A) in Table 29 above) and the General Fund debt service payments on Pension Bonds (Table 30 above).

Table 31
Annual Pension Costs of the General Fund
(Amounts in Millions of USD)

Fiscal Year	General Fund Pension Fund Contribution (A)[1]	General Fund Pension Bond Debt Service Payment (B)	Annual Pension Costs (A+B)	Total General Fund Expenditures (C)	General Fund portion of Annual Pension Costs as % of Total General Fund Expenditures (A+B) / C
2007	$304.6	$74.6	$379.2	$3,736.66	10.15%
2008	$292.7	$78.4	$371.1	$3,919.84	9.47%
2009	$315.0	$84.4	$399.4	$3,915.29	10.20%
2010	$190.8	$96.7	$287.5	$3,653.73	7.87%
2011	$325.8	$97.7	$423.5	$3,785.29	11.19%
2012	$352.7	$100.1	$452.8	$3,484.88	12.99%
2013	$356.5	$196.6	$553.1	$3,613.27	15.31%
2014	$365.8	$211.0	$576.8	$3,886.56	14.84%
2015	$388.5	$107.7	$496.2	$3,831.51	12.95%
2016	$449.6	$109.9	$559.5	$4,015.80	13.93%

(1) Does not include Commonwealth contribution. See Table 29.

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The following table shows the annual City contribution to the Municipal Pension Fund as a percentage of the covered employee payroll.

Table 32
Annual City Contribution as % of Covered Employee Payroll
(Dollar Amounts in Thousands of USD)

Fiscal Year	Annual City Contribution	Fiscal Year Covered Employee Payroll[1]	ACC as % of Payroll
2007	$432,267	$1,351,826	31.98%
2008	$426,934	$1,456,520	29.31%
2009	$455,389	$1,463,260	31.12%
2010	$312,556	$1,421,151	21.99%
2011	$470,155	$1,371,274	34.29%
2012	$555,690	$1,372,174	40.50%
2013	$781,823	$1,429,723	54.68%
2014	$553,179	$1,495,421	36.99%
2015	$577,195	$1,597,849	36.12%
2016	$660,247	$1,676,412	39.38%

Source: Municipal Pension Fund Financial Statements, June 30, 2016.

(1) The definition of "covered-employee payroll" in GASB 68 differs slightly from the "covered payroll" definition in GASB 27. See "PENSION SYSTEM – Funding Requirements; Funding Standards – *GASB; City Funding Policy*."

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Actuarial Projections of Funded Status

Cautionary Note. The information under this subheading, "Actuarial Projections of Funded Status," was prepared by Cheiron. The table below shows a five-year projection of MMO payments, Actuarial Value of Assets, Actuarial Liability, UAL, and Funded Ratio. The charts below show projections through 2036 of funded ratios and MMO contributions. All projections, whether for five years or for twenty years, are subject to actual experience deviating from the underlying assumptions and methods, and that is particularly the case for the charts below for the periods beyond the projections in the five-year table. **Projections and actuarial assessments are "forward looking" statements and are based upon assumptions which may not be fully realized in the future and are subject to change, including changes based upon the future experience of the City's Municipal Pension Fund and Municipal Pension Plan.**

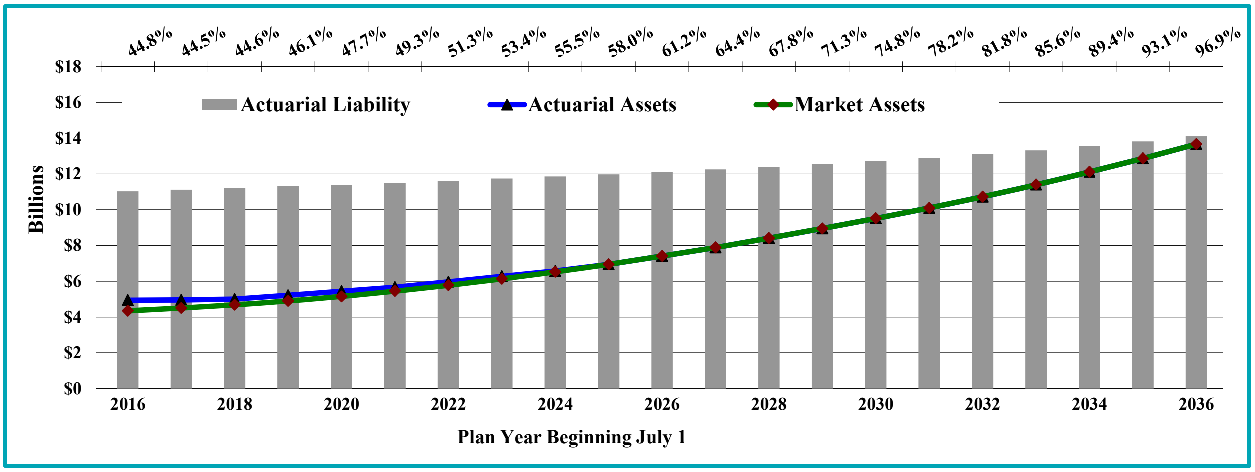
The projections are on the basis that all assumptions in the July 1, 2016 Valuation are exactly realized and the City makes all future MMO payments on schedule as required by Pennsylvania law, and must be understood in the context of the assumptions, methods and benefits in effect as described in the July 1, 2016 Valuation. Included among such assumptions are: (i) the rates of return for the Municipal Pension Fund over the projection period will equal 7.70% annually, (ii) MMO contributions will be made each year, and (iii) the provisions of Act 205 as amended by Act 44 will remain in force during the projection period. The July 1, 2016 Valuation includes charts reflecting the contributions based on MMO (charts 1A and 2A), and charts reflecting the additional contributions in accordance with the Revenue Recognition Policy (chart 3A). The charts below reflect the MMO contributions without taking into account any additional contributions in accordance with the Revenue Recognition Policy. See the July 1, 2016 Valuation for a further discussion of the assumptions and methodologies used by the Actuary in preparing the July 1, 2016 Valuation and the following projections, all of which should be carefully considered in reviewing the projections. The July 1, 2016 Valuation is available for review on the Municipal Retirement System website. The table and charts below separately set forth estimates of sales tax revenues that will be deposited by the City into the Municipal Pension Fund, which were provided by the City to Cheiron at the time of the valuation. Please note that the sales tax contribution figures below do not reflect the updated sales tax contribution figures included in the Revised Twenty-Sixth Five-Year Plan (see line 11 of the "Summary of Operations Fiscal Years 2016 to 2022" on page 1 of the Revised Twenty-Sixth Five-Year Plan). Cheiron has not analyzed and makes no representation regarding the validity of the sales tax revenue assumptions and estimates provided by the City. See "REVENUES OF THE CITY – Sales and Use Tax." Each of the tables and graphs that follow are part of the July 1, 2016 Valuation and such Valuation report should be referenced regarding the underlying benefits, methods, and assumptions utilized in the production of these values.

Five-Year Projection. For the following chart, dollar amounts are in millions of USD.

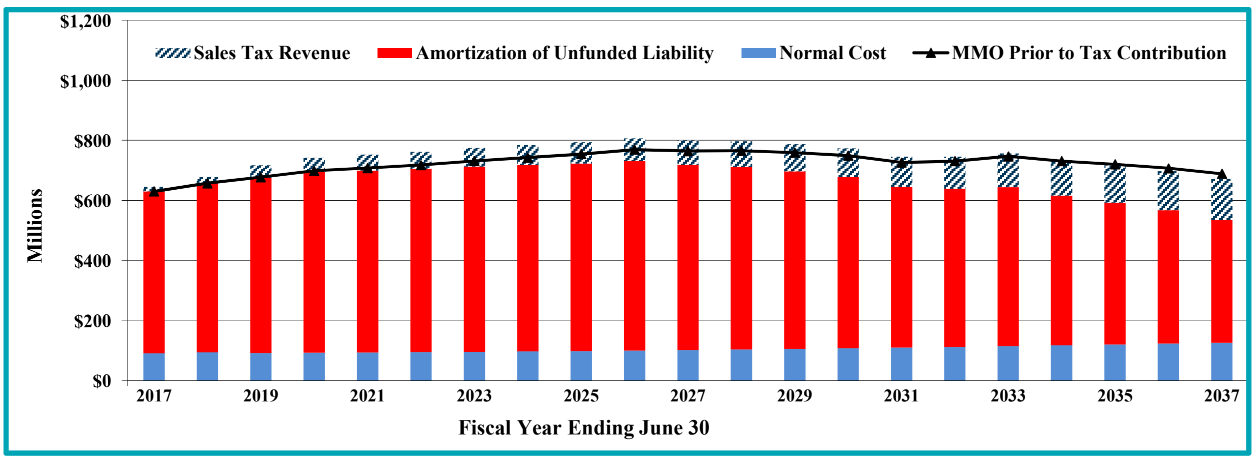
Fiscal Year End	MMO	Sales Tax Contribution	Actuarial Value of Assets	Actuarial Liability	UAL	Funded Ratio
2017	$ 629.6	$ 16.1	$ 4,936.0	$ 11,024.7	$ 6,088.7	44.8%
2018	657.0	21.1	4,955.1	11,126.1	6,171.0	44.5%
2019	675.4	41.7	5,002.4	11,221.0	6,218.5	44.6%
2020	694.7	47.3	5,214.9	11,309.2	6,094.2	46.1%
2021	699.7	52.9	5,437.5	11,392.6	5,955.1	47.7%
2022	704.7	57.2	5,672.3	11,506.9	5,834.6	49.3%

Twenty-Year Projections.

Funded Ratio Chart:



MMO Contribution Chart:



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OTHER POST-EMPLOYMENT BENEFITS

The City self-administers a single employer, defined benefit plan for post-employment benefits other than pension benefits ("OPEB"), and funds such plan on a pay-as-you-go basis. The City's OPEB plan provides for those persons who retire from the City and are participants in the Municipal Pension Plan: (i) post-employment healthcare benefits for a period of five years following the date of retirement and (ii) lifetime life insurance coverage ($7,500 for firefighters who retired before July 1, 1990; $6,000 for all other retirees). In general, retirees eligible for OPEB are those who terminate their employment after ten years of continuous service to immediately become pensioned under the Municipal Pension Plan.

To provide health care coverage, the City pays a negotiated monthly premium for retirees covered by the union contract for AFSCME DC 33 and is self-insured for all other eligible pre-Medicare retirees. Aside from AFSCME DC 33, the City is responsible for the actual health care cost that is invoiced to the City's unions by their respective vendors. The actual cost can be a combination of self-insured claim expenses, premiums, ancillary services, and administrative expenses. Eligible union represented employees receive five years of coverage through their union's health fund. The City's funding obligation for pre-Medicare retiree benefits is the same as for active employees. Union represented and non-union employees may defer their retiree health coverage until a later date. For some groups, the amount that the City pays for their deferred health care is based on the value of the health benefits at the time the retiree claims the benefits, but for police and fire retirees who retired after an established date, the City pays the cost of five years of coverage when the retiree claims the benefits.

The annual payments made by the City for OPEB for Fiscal Years 2012-2016 are shown in Table 33 below.

Table 33
Annual OPEB Payment
(Amounts in Thousands of USD)

Fiscal Year ended June 30,	Annual OPEB Payment
2012	$76,344
2013	$57,096
2014	$67,100
2015	$95,300
2016	$107,200

Source: See Note IV.3 to the City's audited Financial Statements for such Fiscal Years (as included in the City's CAFRs).

For financial reporting purposes, although the City funds OPEB on a pay-as-you-go basis, it is required to include in its financial statements (in accordance with GASB Statement No. 45) a calculation similar to that performed to calculate its pension liability. Pursuant to GASB 45, an annual required contribution is calculated which, if paid on an ongoing basis, is projected to cover normal costs each year and to amortize any unfunded actuarial liability over a period not to exceed 30 years. As of July 1, 2015, the date of the most recent actuarial valuation, the UAL for the City's OPEB was $1.77 billion, the covered annual payroll was $1.54 billion, and the ratio of UAL to the covered payroll was 114.8%. See Note IV.3 to the City's audited Financial Statements for the Fiscal Year ended June 30, 2016.

PGW PENSION PLAN

General

PGW consists of all the real and personal property owned by the City and used for the acquisition, manufacture, storage, processing, and distribution of gas within the City, and all property, books, and records employed and maintained in connection with the operation, maintenance, and administration of PGW. The City Charter provides for a Gas Commission (the "Gas Commission") to be constituted and appointed in accordance with the provisions of contracts between the City and the operator of PGW as may from time to time be in effect, or, in the absence of a contract, as may be provided by ordinance. The Gas Commission consists of the City Controller, two members appointed by City Council and two members appointed by the Mayor.

PGW is operated by PFMC, pursuant to an agreement between the City and PFMC dated December 29, 1972, as amended, authorized by ordinances of City Council (the "Management Agreement"). Under the Management Agreement, various aspects of PFMC's management of PGW are subject to review and approval by the Gas Commission. The PUC has the regulatory responsibility for PGW with regard to rates, safety, and customer service.

The City sponsors the Philadelphia Gas Works Pension Plan (the "PGW Pension Plan"), a single employer defined benefit plan, to provide pension benefits for all of PGW's employees and other eligible class employees of PFMC and the Gas Commission. As plan sponsor, the City, through its General Fund, could be responsible for plan liabilities if the PGW Pension Plan does not satisfy its payment obligations to PGW retirees. At July 1, 2016, the PGW Pension Plan membership total was 3,772, comprised of: (i) 2,521 retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them; and (ii) 1,251 participants, of which 1,036 were vested and 215 were nonvested.

PGW Pension Plan

The PGW Pension Plan provides retirement benefits as well as death and disability benefits. Retirement benefits vest after five years of credited service. Retirement payments for vested employees commence: (i) at age 65 and five years of credited service; (ii) age 55 and 15 years of credited service; or (iii) without regard to age, after 30 years of credited service. For covered employees hired prior to May 21, 2011 (union employees) or prior to December 21, 2011 (non-union employees), PGW pays the entire cost of the PGW Pension Plan. Union employees hired on or after May 21, 2011 and non-union employees hired on or after December 21, 2011 have the option to participate in the PGW Pension Plan and contribute 6% of applicable wages, or participate in a plan established in compliance with Section 401(a) of the Internal Revenue Code (deferred compensation plan) and have PGW contribute 5.5% of applicable wages.

PGW is required by statute to contribute the amounts necessary to fund the PGW Pension Plan. The PGW Pension Plan is being funded with contributions by PGW to the Sinking Fund Commission of the City, together with investment earnings and employee contributions required for new hires after December 2011 who elect to participate in the PGW Pension Plan. Benefit and contribution provisions are established by City ordinance and may be amended only as allowed by City ordinance. The pension payments are treated as an operating expense of PGW and are included as a component of PGW's base rate. The PUC approves all items that are to be included in PGW's base rates. PGW filed its current rate case with the PUC on February 27, 2017.

Effective October 2015, payments to beneficiaries of the PGW Pension Plan are made by the PGW Retirement Reserve Fund. Prior to October 2015, payments to beneficiaries of the PGW Pension Plan were made by PGW through its payroll system. The financial statements for the PGW Pension Plan for the fiscal year ended June 30, 2016, show an amount due to PGW of approximately $6.0 million, which represents the cumulative excess of payments made to the retirees and administrative expenses incurred by PGW, over the sum of PGW's required annual contribution and reimbursements received from the PGW Pension Plan.

Pension Costs and Funding

PGW pays an annual amount that is projected to be sufficient to cover its normal cost and an amortization of the PGW Pension Plan's UAL. The following table shows the normal cost, the amortization payment, and the resulting annual required contribution as of the last five actuarial valuation dates for the PGW Pension Plan. PGW has been using a 20-year open amortization period (and the payments in Table 34 are on the basis of a 20-year open amortization). Commencing in PGW's fiscal year 2016, PGW calculates an annual required contribution on the basis of both a 20-year open amortization period and a 30-year closed amortization period, and will contribute the higher of the two amounts. See "– Projections of Funded Status" below. An open amortization period is one that begins again or is recalculated at each actuarial valuation date. With a closed amortization period, the unfunded liability is amortized over a specific number of years to produce a level annual payment. Because the final amortization date is fixed, if all actuarial assumptions are achieved, the unfunded liability would decline to zero as of the final amortization date. To the extent future experience differs from the assumptions used to establish the 30-year fixed amortization payment schedule, new amortization bases attributable to a particular year's difference would be established and amortized over their own 30-year schedule.

Table 34
PGW Pension – Annual Required Contributions
(Dollar Amounts in Thousands of USD)

Calculation of ARC for the 12-month period ended:	**Normal Cost**[1] (A)	**Amortization Payment**[1] (B)	**ARC**[(1), (2)] (A + B)	**Payments to Beneficiaries**[3]
9/1/2012	$8,782	$14,357	$23,139	$40,122
9/1/2013	$8,533	$15,127	$23,660	$41,614
9/1/2014	$8,852	$12,130	$20,982	$42,913
7/1/2015	$7,859	$18,063	$25,922	$46,917
7/1/2016	$7,992	$20,238	$28,230	$50,447

(1) Source: The Actuarial Valuation Report for the Plan Year July 1, 2016 – June 30, 2017 for the PGW Pension Plan.

(2) As described above, until October 2015, PGW did not make a net cash contribution to the PGW Pension Plan, but rather paid beneficiaries through its payroll system, and then was reimbursed by the Plan. Effective October 2015, payments to beneficiaries of the PGW Pension Plan are made by the PGW Retirement Reserve Fund. Each ARC is the sum reflected in this table, but the "Calculated Mid-Year Contribution" in Tables 36 and 37 more closely approximates the actual pension contributions made by PGW.

(3) Source: For 2012 and 2013, PGW's CAFR for the fiscal years ended August 31, 2012 and 2013, respectively. For 2014-2015, PGW's CAFR for the fiscal year ended August 31, 2015. For 2016, the audited financial statements for PGW for the fiscal years ended August 31, 2016 and 2015.

Although PGW has paid its annual required contribution each year, the market value of assets for the PGW Pension Plan is less than the actuarial accrued liability, as shown in the next table.

Table 35
Schedule of Pension Funding Progress
(Dollar Amounts in Thousands of USD)[1]

Actuarial Valuation Date	Market Value of Assets	Actuarial Liability	UAL (Market Value)	Funded Ratio
9/1/2012	$437,780	$585,632	$147,852	74.75%
9/1/2013	$462,691	$623,612	$160,921	74.20%
9/1/2014	$514,944	$643,988	$129,044	79.96%
7/1/2015	$510,719	$706,704	$195,985	72.27%
7/1/2016[2]	$483,259	$736,078	$252,819	65.65%

(1) Source: The Actuarial Valuation Report for the Plan Year July 1, 2016 – June 30, 2017 for the PGW Pension Plan.
(2) On July 1, 2016, the actuarial value of assets was $511.3 million, resulting in a UAL of $224.8 million, and a funded ratio of 69.46%. See Tables 36 and 37.

The current significant actuarial assumptions for the PGW Pension Plan are: (i) investment return rate of 7.30% compounded annually; (ii) salary increases assumed to reach 4.5% per year; and (iii) retirements that are assumed to occur, for those with 30 or more years of service, at a rate of 15% at ages 55 to 60, 30% at age 61, 50% at ages 62-69, and 100% at age 70 and older.

Since the last actuarial valuation performed as of July 1, 2015, the demographics of the plan participants have changed as follows: (i) the number of plan participants has decreased 0.7%, (ii) the total number of actives in the plan decreased 1.8%, (iii) total payroll has decreased 4.5%, (iv) average pay has decreased 2.8%, and (v) average age of active plan participants increased 1.2%. Effective September 1, 2016, PGW began utilizing an investment rate of return of 7.30% for the PGW Pension Plan. The assumed investment rate return for the period July 1, 2015 – August 31, 2016 was 7.65%. Such reduction in the assumed investment rate of return increased the measurement of plan liabilities by approximately 3.6% and increased the annual contribution by $2,407,000 (2.6% of pay). The foregoing, among other factors, have resulted in an increase in the UAL from approximately $196.0 million at July 1, 2015 to approximately $252.8 million at July 1, 2016.

PGW uses a September 1 – August 31 fiscal year, while the PGW Pension Plan uses a July 1 – June 30 fiscal year (the same as the City's fiscal year). The last two actuarial valuation reports for the PGW Pension Plan utilized a plan year of July 1 to June 30. This is reflected in Table 35 above.

The PGW Pension Plan actuary prepared a separate actuarial valuation report ("GASB 67 Report") for the fiscal year ending June 30, 2016, for purposes of plan reporting information under Governmental Accounting Standards Board Statement No. 67, "Financial Reporting for Pension Plans." The GASB 67 Report shows for the fiscal year ending June 30, 2016, an unfunded liability of approximately $296.1 million (rather than the approximately $252.8 million reflected in Table 35), which results in a funded ratio of 62.00%. In addition, that report provides an interest rate sensitivity, which shows that were the investment rate to be 6.30% (1% lower than the assumed investment rate of 7.30%), the unfunded liability would be approximately $387.1 million.

Projections of Funded Status

The information under this subheading, "Projections of Funded Status," is extracted from tables prepared by Aon Hewitt, as actuary to the PGW Pension Plan, which were included in their "Actuarial Valuation Report for the Plan Year July 1, 2016 – June 30, 2017," dated October 28, 2016. The charts show 10-year projections, using both the current amortization method (20-year, open) and the alternative amortization method (30-year, fixed). See "– Pension Costs and Funding" above. Projections are subject to actual experience deviating from the underlying assumptions and methods. **Projections and actuarial assessments are "forward looking" statements and are based upon assumptions that may not be fully realized in the future and are subject to change, including changes based upon the future experience of the PGW Pension Plan.**

Table 36
Schedule of Prospective Funded Status (20-Year Open Amortization)
(Dollar Amounts in Thousands of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets	Actuarial Accrued Liability	UAL (Actuarial Value)	Calculated Mid-Year Contribution[(1), (2)]	Funded Ratio
2016	$511,289	$736,078	$224,789	$29,260	69.46%
2017	$516,312	$743,161	$226,849	$29,201	69.48%
2018	$520,981	$749,322	$228,341	$29,227	69.53%
2019	$525,256	$754,759	$229,502	$29,361	69.59%
2020	$529,287	$760,354	$231,067	$29,267	69.61%
2021	$539,874	$764,209	$224,335	$28,403	70.64%
2022	$549,285	$766,619	$217,334	$27,526	71.65%
2023	$557,447	$767,850	$210,403	$26,709	72.60%
2024	$564,315	$768,739	$204,424	$25,598	73.41%
2025	$569,580	$769,172	$199,591	$25,018	74.05%

(1) Source: The Actuarial Valuation Report for the Plan Year July 1, 2016 – June 30, 2017 for the PGW Pension Plan.

(2) PGW makes monthly contributions to the PGW Retirement Reserve Fund. The actuary's report assumes contributions at the beginning, middle, and end of the plan year. PGW utilizes the mid-year contribution level to approximate the actual funding methodology.

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Table 37
Schedule of Prospective Funded Status (30-Year Closed Amortization)
(Dollar Amounts in Thousands of USD)

Actuarial Valuation Date (July 1)	Actuarial Value of Assets	Actuarial Accrued Liability	UAL (Actuarial Value)	Calculated Mid-Year Contribution[(1), (2)]	Funded Ratio
2016	$511,289	$736,078	$224,789	$26,470	69.46%
2017	$516,312	$743,161	$226,849	$26,587	69.48%
2018	$520,981	$749,322	$228,341	$26,806	69.53%
2019	$525,256	$754,759	$229,502	$27,157	69.59%
2020	$529,287	$760,354	$231,067	$27,293	69.61%
2021	$539,874	$764,209	$224,335	$26,792	70.64%
2022	$549,285	$766,619	$217,334	$26,298	71.65%
2023	$557,447	$767,850	$210,403	$25,880	72.60%
2024	$564,315	$768,739	$204,424	$25,178	73.41%
2025	$569,580	$769,172	$199,591	$25,013	74.05%

(1) Source: The Actuarial Valuation Report for the Plan Year July 1, 2016 – June 30, 2017 for the PGW Pension Plan.

(2) PGW makes monthly contributions to the PGW Retirement Reserve Fund. The actuary's report assumes contributions at the beginning, middle, and end of the plan year. PGW utilizes the mid-year contribution level to approximate the actual funding methodology.

Additional Information

The City issues a publicly available financial report that includes financial statements and required supplementary information for the PGW Pension Plan. The report is not incorporated into this Official Statement by reference. The report may be obtained by writing to the Office of the Director of Finance of the City.

Further information on the PGW Pension Plan, including with respect to its membership, plan description, funding policy, actuarial assumptions and funded status is contained in the Fiscal Year 2016 CAFR.

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PGW OTHER POST-EMPLOYMENT BENEFITS

PGW provides post-employment healthcare and life insurance benefits to its participating retirees and their beneficiaries and dependents. The City, through its General Fund, could be responsible for costs associated with post-employment healthcare and life insurance benefits if PGW fails to satisfy its post-employment benefit obligations.

PGW pays the full cost of medical, basic dental, and prescription coverage for employees who retired prior to December 1, 2001. Employees who retire after December 1, 2001 are provided a choice of three plans at PGW's expense and can elect to pay toward a more expensive plan. Union employees hired prior to May 21, 2011 and non-union employees hired prior to December 21, 2011 who retire from active service to immediately begin receiving pension benefits are entitled to receive lifetime post-retirement medical, prescription, and dental benefits for themselves and, depending on their retirement plan elections, their dependents. Employees hired on or after those dates are entitled to receive only five years of post-retirement benefits. Currently, PGW provides for the cost of healthcare and life insurance benefits for retirees and their beneficiaries on a pay-as-you-go-basis.

As part of a July 29, 2010 rate case settlement (the "Rate Settlement"), which provided for the establishment of an irrevocable trust for the deposit of funds derived through a rider from all customer classes to fund OPEB liabilities (the "OPEB Surcharge"), PGW established the trust in July 2010, and began funding the trust in accordance with the Rate Settlement in September 2010. The Rate Settlement provides that PGW shall deposit $15.0 million annually for an initial five-year period towards the ARC, and an additional $3.5 million annually, which represents a 30-year amortization of the OPEB liability at August 31, 2010. These deposits will be funded primarily through increased rates of $16.0 million granted in the Rate Settlement. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities (or funding excesses) over a period of 30 years. In PGW's 2015-2016 Gas Cost Rate ("GCR") proceeding, PGW proposed to continue its OPEB Surcharge. The parties to the GCR proceeding submitted a settlement agreement continuing the OPEB Surcharge at the same level of revenue ($16 million annually) and funding ($18.5 million annually). Such settlement agreement was approved by the PUC.

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Table 38 provides detail of actual PGW OPEB payments for the last five PGW Fiscal Years and projected PGW OPEB payments for PGW Fiscal Years 2017-2021.

Table 38
PGW OPEB Payments
(Amounts in Thousands of USD)

	Fiscal Year ended August 31,	Healthcare	Life Insurance	OPEB Trust	Total
Actual					
	2012	$24,503	$1,483	$18,500	$44,486
	2013	$22,180	$1,562	$18,500	$42,242
	2014	$24,247	$1,615	$18,500	$44,362
	2015	$28,598	$1,749	$18,500	$48,847
	2016(1)	$29,300	$1,800	$18,500	$49,551
Projections					
	2017	$30,971	$1,700	$18,500	$51,171
	2018	$34,449	$1,700	$18,500	$54,649
	2019	$37,659	$1,700	$18,500	$57,859
	2020	$41,010	$1,700	$18,500	$61,210
	2021	$44,661	$1,700	$18,500	$64,861

(1) For PGW Fiscal Year 2016, "Healthcare" and "Life Insurance" are rounded figures and, as such, will not sum. "Total" is an actual figure.

Table 39 is the schedule of PGW OPEB funding progress, as of the actuarial valuation date of August 31 for 2012-2016.

Table 39
Schedule of OPEB Funding Progress
(Dollar Amounts in Thousands of USD)

Actuarial valuation date (August 31)	Actuarial value of assets	Actuarial liability	Unfunded actuarial liability	Funded ratio
2012	$38,860	$443,982	$405,122	8.8%
2013	$61,796	$436,527	$374,731	14.2%
2014	$90,838	$450,289	$359,451	20.2%
2015	$104,318	$505,434	$401,116	20.6%
2016	$131,868	$489,725	$357,857	26.9%

Further information on PGW's annual OPEB expense, net OPEB obligation and the funded status of the OPEB benefits related to PGW is contained in the Fiscal Year 2016 CAFR.

CITY CASH MANAGEMENT AND INVESTMENT POLICIES

General Fund Cash Flow

Because the receipt of revenues into the General Fund generally lags behind expenditures from the General Fund during each Fiscal Year, the City issues notes in anticipation of General Fund revenues and makes payments from the Consolidated Cash Account (described below) to finance its on-going operations.

The timing imbalance referred to above results from a number of factors, principally the following: (i) Real Estate Taxes, BIRT, and net profits taxes are not due until the latter part of the Fiscal Year; and (ii) the City experiences lags in reimbursement from other governmental entities for expenditures initially made by the City in connection with programs funded by other governments.

The City has issued, or PICA has issued on behalf of the City, tax and revenue anticipation notes in each Fiscal Year since Fiscal Year 1972. Each issue was repaid when due, prior to the end of the Fiscal Year. The City issued $125 million of tax and revenue anticipation notes on December 6, 2017, which mature on June 29, 2018.

The repayment of the tax and revenue anticipation notes is funded through cash available in the General Fund.

Consolidated Cash

The Act of the General Assembly of June 25, 1919 (Pa. P.L. 581, No. 274, Art. XVII, § 6) authorizes the City to make temporary inter-fund loans between certain operating and capital funds. The City maintains a Consolidated Cash Account for the purpose of pooling the cash and investments of all City funds, except those which, for legal or contractual reasons, cannot be commingled (e.g., the Municipal Pension Fund, sinking funds, sinking fund reserves, funds of PGW, the Aviation Fund, the Water Fund, and certain other restricted purpose funds). A separate accounting is maintained to record the equity of each member fund that participates in the Consolidated Cash Account. The City manages the Consolidated Cash Account pursuant to the procedures described below.

To the extent that any member fund temporarily experiences the equivalent of a cash deficiency, an advance is made from the Consolidated Cash Account, in an amount necessary to result in a zero balance in the cash equivalent account of the borrowing fund. All subsequent net receipts of a member fund that has negative equity are applied in repayment of the advance.

All advances are made within the budgetary constraints of the borrowing funds. Within the General Fund, this system of inter-fund advances has historically resulted in the temporary use of tax revenues or other operating revenues for capital purposes and the temporary use of capital funds for operating purposes. With the movement of the reimbursable component of DHS activities from the General Fund to the Grants Revenue Fund, a similar system of advances has resulted in the use of tax revenues or other operating revenues in the General Fund to make expenditures from the Grants Revenue Fund, which advances may be outstanding for multiple Fiscal Years, but which are expected to be reimbursed by the Commonwealth.

The City, in addition to maintaining an ongoing cash reconciliation process, is reviewing and reconciling certain unidentified variances in the Consolidated Cash Account. The reconciliation process, in short, reconciles the account balance and activity shown on the records of the bank at which the cash balance of the Consolidated Cash Account is maintained to that shown on the City's records. The City's records show currently that the reported balance in the Consolidated Cash Account on the City's records is higher than the account balance on the bank's records by approximately $32.9 million, which is attributable principally to unidentified historic variances. The City will be engaging the services of an auditing firm to undertake a timely and complete reconciliation and resolve the unidentified variances. The audit is expected to take approximately 12 to 14 months to complete. At this time, the City does not know what impact, if any, the final results of such audit will show regarding the balance in the Consolidated Cash Account.

Procedures governing the City's cash management operations require the General Fund-related operating fund to borrow initially from the General Fund-related capital fund, and only to the extent there is a deficiency in such fund may the General Fund-related operating fund borrow money from any other funds in the Consolidated Cash Account.

Investment Practices

Cash balances in each of the City's funds are managed to maintain daily liquidity to pay expenses, and to make investments that preserve principal while striving to obtain the maximum rate of return. Pursuant to the City Charter, the City Treasurer is the City official responsible for managing cash collected into the City Treasury. The available cash balances in excess of daily expenses are placed in demand accounts, swept into money market mutual funds, or used to make investments directed by professional investment managers. These investments are held in segregated trust accounts at a separate financial institution. Cash balances related to revenue bonds for water and sewer and the airport are directly deposited and held separately in trust. A fiscal agent manages these cash balances in accordance with the applicable bond documents and the investment practice is guided by administrative direction of the City Treasurer per the Investment Committee and the Investment Policy (as described below). In addition, certain operating cash deposits (such as Community Behavioral Health, Special Gas/County Liquid and "911" surcharge) of the City are restricted by purpose and required to be segregated into accounts in compliance with federal or Commonwealth reporting.

Investment guidelines for the City are embodied in section 19-202 of the Philadelphia Code. In furtherance of these guidelines, as well as Commonwealth and federal legislative guidelines, the Director of Finance adopted a written Investment Policy (the "Policy") that went into effect in August 1994 and was most recently revised in September 2014. The Policy supplements other legal requirements and establishes guiding principles for the overall administration and effective management of all of the City's monetary funds (except the Municipal Pension Fund, the PGW Retirement Reserve Fund, the PGW OPEB Trust and the PGW Workers' Compensation Reserve Fund).

The Policy delineates the authorized investments as authorized by the Philadelphia Code and the funds to which the Policy applies. The authorized investments include U.S. government securities, U.S. treasuries, U.S. agencies, repurchase agreements, commercial paper, corporate bonds, money market mutual funds, obligations of the Commonwealth, collateralized banker's acceptances and certificates of deposit, and collateralized mortgage obligations and pass-through securities directly issued by a U.S. agency or instrumentality, all of investment grade rating or better and with maturity limitations.

U.S. government treasury and agency securities carry no limitation as to the percent of the total portfolio. Repurchase agreements, money market mutual funds, commercial paper, and corporate bonds are limited to investment of no more than 25% of the total portfolio. Obligations of the Commonwealth and collateralized banker's acceptances and certificates of deposit are limited to no more than 15% of the total portfolio. Collateralized mortgage obligations and pass-through securities directly issued by a U.S. agency or instrumentality are limited to no more than 5% of the total portfolio.

U.S. government securities carry no limitation as to the percent of the total portfolio per issuer. U.S. agency securities are limited to no more than 33% of the total portfolio per issuer. Repurchase agreements and money market mutual funds are limited to no more than 10% of the total portfolio per issuer. Commercial paper, corporate bonds, obligations of the Commonwealth, collateralized banker's acceptances and certificates of deposit, and collateralized mortgage obligations and pass-through securities directly issued by a U.S. agency or instrumentality are limited to no more than 3% of the total portfolio per issuer.

The Policy provides for an ad hoc Investment Committee consisting of the Director of Finance, the City Treasurer and one representative each from the Water Department, the Division of Aviation, and PGW. The Investment Committee meets quarterly with each of the investment managers to review each manager's performance to date and to plan for the next quarter. Investment managers are given any changes in investment instructions at these meetings. The Investment Committee approves all modifications to the Policy. The Investment Committee may from time to time review and revise the Policy and does from time to time approve temporary waivers of the restrictions on assets based on cash management needs and recommendations of investment managers.

The Policy expressly forbids the use of any derivative investment product as well as investments in any security whose yield or market value does not follow the normal swings in interest rates. Examples of these types of securities include, but are not limited to: structured notes, floating rate (excluding U.S. Treasury and U.S. agency floating rate securities) or inverse floating rate instruments, securities that could result in zero interest accrual if held to maturity, and mortgage derived interest and principal only strips. The City currently makes no investments in derivatives.

DEBT OF THE CITY

General

Section 12 of Article IX of the Constitution of the Commonwealth provides that the authorized debt of the City "may be increased in such amount that the total debt of [the] City shall not exceed 13.5% of the average of the annual assessed valuations of the taxable realty therein, during the ten years immediately preceding the year in which such increase is made, but [the] City shall not increase its indebtedness to an amount exceeding 3.0% upon such average assessed valuation of realty, without the consent of the electors thereof at a public election held in such manner as shall be provided by law." The Supreme Court of Pennsylvania has held that bond authorizations once approved by the voters need not be reduced as a result of a subsequent decline in the average assessed value of City property. The general obligation debt subject to the limitation described in this paragraph is referred to herein as "Tax-Supported Debt."

The Constitution of the Commonwealth further provides that there shall be excluded from the computation of debt for purposes of the Constitutional debt limit, debt (herein called "Self-Supporting Debt") incurred for revenue-producing capital improvements that may reasonably be expected to yield revenue in excess of operating expenses sufficient to pay interest and sinking fund charges thereon. In the case of general obligation debt, the amount of such Self-Supporting Debt to be so excluded must be determined by the Court of Common Pleas of Philadelphia County upon petition by the City. Self-Supporting Debt is general obligation debt of the City, with the only distinction from Tax-Supported Debt being that it is not used in the calculation of the Constitutional debt limit. Self-Supporting Debt has no lien on any particular revenues.

For purposes of this Official Statement, Tax-Supported Debt and Self-Supporting Debt are referred to collectively as "General Obligation Debt." The term "General Fund-Supported Debt" is comprised of: (i) General Obligation Debt; and (ii) PAID, PMA, PPA, and PRA bonds.

Using the methodology described above, as of June 30, 2017, the Constitutional debt limitation for Tax-Supported Debt was approximately $6,629,516,000. The total amount of authorized debt applicable to the debt limit was $1,952,005,000, including $873,632,000 of authorized but unissued debt, leaving a legal debt margin of $4,677,511,000. Based on the foregoing figures, the calculation of the legal debt margin is as follows:

Table 40
General Obligation Debt
June 30, 2017
(Amounts in Thousands of USD)

Authorized, issued and outstanding	$1,431,705
Authorized and unissued	873,632
Total	$2,305,337
Less: Self-Supporting Debt	($353,332)
Less: Serial bonds maturing within a year	0
Total amount of authorized debt applicable to debt limit	1,952,005
Legal debt limit	6,629,516
Legal debt margin	$4,677,511

As a result of the implementation of the City's AVI, the assessed value of taxable real estate within the City has increased substantially. See "REVENUES OF THE CITY – Real Property Taxes Assessment and Collection." The $6.630 billion Constitutional debt limit calculation includes four years of property values certified under the City's AVI program, and six years of property values under the City's former property valuation process. Assuming no increase or decrease in property values used to calculate the Constitutional debt limit in Table 40, the Constitutional debt limit is estimated to be $13.411 billion by 2027.

The City is also empowered by statute to issue revenue bonds and, as of June 30, 2017, had outstanding $1,996,916,000 aggregate principal amount of Water and Wastewater Revenue Bonds ("Water and Wastewater Bonds"), $834,850,000, aggregate principal amount of Gas Works Revenue Bonds, and $1,186,465,000 aggregate principal amount of Airport Revenue Bonds. As of June 30, 2017, the principal amount of PICA bonds outstanding was $213,945,000. The City has also enacted an ordinance authorizing the issuance of approximately $350 million aggregate principal amount in commercial paper for the Division of Aviation, and ordinances authorizing the issuance of up to $270 million of Gas Works Revenue Notes to finance working capital and capital projects for PGW and the issuance of up to $300 million of Gas Works Revenue Bonds to finance capital projects for PGW.

Short-Term Debt

The City issued $125 million of tax and revenue anticipation notes on December 6, 2017, which mature on June 29, 2018. As provided in the PICA Act, the City's tax and revenue anticipation notes are general obligations of the City, but do not constitute debt of the City subject to the limitations of the Constitutional debt limit. See "CITY CASH MANAGEMENT AND INVESTMENT POLICIES – General Fund Cash Flow."

Long-Term Debt

The following table presents a synopsis of the bonded debt of the City and its component units as of the date indicated. Of the total balance of the City's general obligation bonds issued and outstanding as of June 30, 2017, approximately 26% is scheduled to mature within five Fiscal Years and approximately 54% is scheduled to mature within ten Fiscal Years. When PICA's outstanding bonds are included with the City's general obligation bonds, approximately 60% is scheduled to mature within ten Fiscal Years.

Table 41
Bonded Debt – City of Philadelphia and Component Units
(as of June 30, 2017)
(Amounts in Thousands of USD)[(1), (2)]

General Obligation Debt and PICA Bonds				
General Obligation Bonds		$1,431,705		
PICA Bonds		213,945		
Subtotal: General Obligation Debt and PICA Bonds			**$1,645,650**	
Other General Fund-Supported Debt[(3)]				
Philadelphia Municipal Authority				
Criminal Justice Center	$33,100			
Juvenile Justice Center	87,325			
Public Safety Campus	65,155			
Fleet Management Equipment Lease	4,429			
Energy Conservation	9,915			
		$199,924		
Philadelphia Authority for Industrial Development				
Pension capital appreciation bonds	$465,351			
Pension fixed rate bonds	761,655			
Stadiums	262,830			
Library	5,570			
Cultural and Commercial Corridor	89,205			
One Parkway	32,165			
Philadelphia School District[(4)]	14,680			
		$1,631,456		
Parking Authority		11,660		
Redevelopment Authority		174,670		
Subtotal: Other General Fund-Supported Debt			**$2,017,710**	
Revenue Bonds				
Water Fund		$1,996,916		
Aviation Fund		1,186,465		
Gas Works		834,850		
Subtotal: Revenue Bonds			**$4,018,231**	
Grand Total				**$7,681,591**

(1) Unaudited; figures may not sum due to rounding.
(2) For tables setting forth a ten-year historical summary of Tax-Supported Debt of the City and the School District and the debt service requirements to maturity of the City's outstanding bonded indebtedness as of June 30, 2016, see the Fiscal Year 2016 CAFR.
(3) The principal amount outstanding relating to the PAID 1999 Pension Obligation Bonds, Series B (capital appreciation bonds) is reflected as the accreted value thereon as of June 30, 2017.
(4) This financing was undertaken by the City through PAID for the benefit of the School District and does not represent debt of the School District. For more information on this financing, see "REVENUES OF THE CITY – Sales and Use Tax" and "EXPENDITURES OF THE CITY – City Payments to School District."

Table 42
City of Philadelphia
Annual Debt Service on General Fund-Supported Debt
(as of June 30, 2017)
(Amounts in Millions of USD)[1]

	General Obligation Debt[2]			Other General Fund-Supported Debt[4]			Aggregate General Fund-Supported Debt		
Fiscal Year	Principal	Interest[3]	Total	Principal	Interest[5]	Total	Principal	Interest	Total
2018	70.82	68.73	139.55	108.14	139.22	247.36	178.96	207.95	386.91
2019	74.45	65.18	139.63	74.65	138.74	213.39	149.10	203.92	353.02
2020	76.65	61.51	138.15	65.56	138.61	204.17	142.21	200.12	342.32
2021	69.97	57.94	127.91	80.75	123.50	204.25	150.72	181.44	332.16
2022	73.12	54.45	127.57	78.56	125.71	204.27	151.68	180.16	331.84
2023	77.80	50.65	128.45	115.98	88.28	204.26	193.78	138.93	332.71
2024	81.68	46.59	128.27	114.74	88.28	203.02	196.42	134.87	331.29
2025	85.67	42.36	128.03	119.20	83.84	203.05	204.87	126.20	331.08
2026	82.42	38.14	120.55	134.81	67.43	202.24	217.23	105.57	322.79
2027	86.38	33.88	120.26	159.97	44.41	204.38	246.35	78.29	324.64
2028	91.08	29.57	120.65	165.11	35.16	200.27	256.19	64.73	320.92
2029	65.73	25.87	91.60	273.16	18.18	291.34	338.89	44.05	382.94
2030	81.49	22.33	103.81	53.30	8.60	61.90	134.79	30.93	165.71
2031	86.30	18.27	104.57	55.77	6.14	61.91	142.07	24.41	166.48
2032	90.66	13.99	104.65	15.23	4.08	19.30	105.89	18.07	123.95
2033	55.58	10.40	65.98	7.33	3.55	10.87	62.91	13.95	76.85
2034	43.80	7.85	51.65	7.66	3.20	10.86	51.46	11.05	62.51
2035	29.55	5.98	35.53	8.02	2.85	10.87	37.57	8.83	46.40
2036	31.00	4.54	35.53	8.40	2.47	10.87	39.40	7.01	46.40
2037	17.33	3.33	20.66	8.79	2.08	10.87	26.12	5.41	31.53
2038	17.79	2.42	20.21	9.21	1.66	10.87	27.00	4.08	31.08
2039	18.67	1.55	20.21	9.65	1.22	10.87	28.32	2.77	31.08
2040	7.58	0.96	8.54	3.31	0.77	4.08	10.89	1.73	12.62
2041	7.93	0.61	8.54	3.45	0.62	4.07	11.38	1.23	12.61
2042	8.34	0.21	8.54	3.60	0.48	4.07	11.94	0.69	12.61
2043	0	0	0	3.75	0.33	4.08	3.75	0.33	4.08
2044	0	0	0	3.91	0.17	4.08	3.91	0.17	4.08
Total	**$1,431.79**	**$667.31**	**$2,099.04**	**$1,691.98**	**$1,129.57**	**$2,821.54**	**$3,123.77**	**$1,796.88**	**$4,920.58**

(1) Does not include letter of credit fees. Figures may not sum due to rounding.
(2) Includes both Tax-Supported Debt and Self-Supporting Debt. See "– General." Does not include PICA Bonds.
(3) Assumes interest rate on hedged variable rate bonds to be the associated fixed swap rate.
(4) Includes PAID, PMA, PPA, and PRA bonds, with capital appreciation bonds including only actual amounts payable. The original issuance amount of such capital appreciation bonds is included under the "Principal" column in the Fiscal Year such bonds mature and the full accretion amount at maturity less the original issuance amount is included in the "Interest" column in the Fiscal Year such bonds mature.
(5) Assumes interest rate on hedged variable rate bonds to be the associated fixed swap rate, plus any fixed spread. Net of capitalized interest on PAID 2012 Service Agreement Revenue Refunding Bonds.

Other Long-Term Debt Related Obligations

The City has entered into other contracts and leases to support the issuance of debt by public authorities related to the City pursuant to which the City is required to budget and appropriate tax or other general revenues to satisfy such obligations, as shown in Table 41. The City budgets all other long-term debt-related obligations as a single budget item with the exception of PPA.

The Hospitals Authority and the State Public School Building Authority have issued bonds on behalf of the Community College of Philadelphia ("CCP"). Under the Community College Act (Pa. P.L. 103, No. 31 (1985)), each community college must have a local sponsor, which for CCP is the City. As the local sponsor, the City is obligated to pay up to 50% of the annual capital expenses of CCP, which includes debt service. The remaining 50% is paid by the Commonwealth. Additionally, the City annually appropriates funds for a portion of CCP's operating costs (less tuition and less the Commonwealth's payment). The amount paid by the City in Fiscal Year 2017 was $29.9 million. The budgeted amount for Fiscal Year 2018 is $30.4 million.

In the first quarter of Fiscal Year 2016, the City entered into a service agreement supporting PAID's guaranty of a $15 million letter of credit securing the funding of certain costs related to the 2016 Democratic National Convention.

PICA Bonds

PICA has issued 11 series of bonds at the request of the City (the "PICA Bonds"). PICA no longer has authority under the PICA Act to issue bonds for new money purposes, but may refund bonds previously issued. As of June 30, 2017, the principal amount of PICA Bonds outstanding was $213,945,000. The final maturity date for such PICA Bonds is June 15, 2023. The proceeds of the PICA Bonds were used to: (i) make grants to the City to fund its General Fund deficits, to fund the costs of certain City capital projects, to provide other financial assistance to the City to enhance operational productivity, and to defease certain of the City's general obligation bonds; (ii) refund other PICA Bonds; and (iii) pay costs of issuance.

The PICA Act authorizes the City to impose a tax for the sole and exclusive purposes of PICA. In connection with the adoption of the Fiscal Year 1992 budget and the execution of the PICA Agreement, as so authorized by the PICA Act, the City reduced the wage, earnings, and net profits taxes on City residents by 1.5% and enacted a new tax of 1.5% on wages, earnings, and net profits of City residents (the "PICA Tax"), which continues in effect. The PICA Tax secures the PICA Bonds. Pursuant to the PICA Act, at such time when no PICA Bonds are outstanding, the PICA Tax will expire. At any time, the City is authorized to increase for its own use its various taxes, including its wage, earnings, and net profits taxes on City residents and could do so upon the expiration of the PICA Tax. Certain taxes, such as sales, liquor, and hotel taxes, among others, cannot be increased by the City without Commonwealth approval.

The PICA Tax is collected by the City's Department of Revenue, as agent of the State Treasurer, and deposited in the Pennsylvania Intergovernmental Cooperation Authority Tax Fund (the "PICA Tax Fund") of which the State Treasurer is custodian. The PICA Tax Fund is not subject to appropriation by City Council or the General Assembly. See "THE GOVERNMENT OF THE CITY OF PHILADELPHIA – Local Government Agencies – *Non-Mayoral-Appointed or Nominated Agencies* – PICA."

The PICA Act authorizes PICA to pledge the PICA Tax to secure its bonds and prohibits the Commonwealth and the City from repealing the PICA Tax or reducing its rate while any PICA Bonds are outstanding. PICA Bonds are payable from PICA revenues, including the PICA Tax, pledged to secure PICA's bonds, the Bond Payment Account (as described below) and any debt service reserve fund established for such bonds and have no claim on any revenues of the Commonwealth or the City.

The PICA Act establishes a "Bond Payment Account" for PICA as a trust fund for the benefit of PICA bondholders and authorizes the creation of a debt service reserve fund for bonds issued by PICA. The State Treasurer is required to pay the proceeds of the PICA Tax held in the PICA Tax Fund directly to the Bond Payment Account. The proceeds of the PICA Tax in excess of amounts required for: (i) debt service; (ii) replenishment of any debt service reserve fund for bonds issued by PICA; and (iii) certain PICA operating expenses, are required to be deposited in a trust fund established exclusively to benefit the City and designated the "City Account." Amounts in the City Account are required to be remitted to the City not less often than monthly, unless PICA certifies the City's non-compliance with the then-current five-year financial plan.

The total amount of PICA Tax remitted by the State Treasurer to PICA (which is net of the costs of the State Treasurer in collecting the PICA Tax), PICA annual debt service and investment expenses, and net PICA tax revenue remitted to the City for Fiscal Years 2013-2017 and the budgeted amounts and current estimates for Fiscal Year 2018 are set forth below.

Table 43
Summary of PICA Tax Remitted by the State Treasurer to PICA and Net Taxes Remitted by PICA to the City (Amounts in Millions of USD)(1)

Fiscal Year	PICA Tax(2)	PICA Annual Debt Service and Investment Expenses(2)	Net taxes remitted to the City(3)
2013 (Actual)	$376.5	$62.5	$314.0
2014 (Actual)	$384.5	$65.8	$318.7
2015 (Actual)	$408.5	$62.0	$346.5
2016 (Actual)	$444.5	$61.1	$383.4
2017 (Unaudited Actual)	$469.2	$59.7	$409.5
2018 (Adopted Budget)	$475.2	$56.0	$419.2
2018 (Current Estimate)	$483.6	$56.0	$427.6

(1) Figures may not sum due to rounding.
(2) Source: The City's Quarterly City Manager's Reports.
(3) Source: For Fiscal Years 2013-2016, the City's CAFRs for such Fiscal Years. For Fiscal Year 2017, the First Quarter QCMR. For Fiscal Year 2018, the Fiscal Year 2018 Adopted Budget and the First Quarter QCMR.

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OTHER FINANCING RELATED MATTERS

Swap Information

The City has entered into various swaps related to its outstanding General Fund-Supported Debt as detailed in the following table:

Table 44
Summary of Swap Information for General Fund-Supported Debt as of June 30, 2017

City Entity	City GO	City Lease PAID	City Lease PAID	City Lease PAID	City Lease PAID	City Lease PAID
Related Bond Series	2009B[(1)]	2007A (Stadium)[(2)]	2007B-2,3 (Stadium)[(3),(5)]	2014A (Stadium)[(3)]	2007B-2,3 (Stadium)[(3),(6)]	2014A (Stadium)[(3)]
Initial Notional Amount	$313,505,000	$298,485,000	$217,275,000	$87,961,255	$72,400,000	$29,313,745
Current Notional Amount	$100,000,000	$193,520,000	$87,758,745	$87,961,255	$29,246,255	$29,313,745
Termination Date	8/1/2031	10/1/2030	10/1/2030	10/1/2030	10/1/2030	10/1/2030
Product	Fixed Payer Swap	Basis Swap	Fixed Payer Swap	Fixed Payer Swap	Fixed Payer Swap	Fixed Payer Swap
Rate Paid by Dealer	SIFMA	67% 1-month LIBOR + 0.20% plus fixed annuity	SIFMA	70% 1-month LIBOR	SIFMA	70% 1- month LIBOR
Rate Paid by City Entity	3.829%	SIFMA	3.9713%	3.62%	3.9713%	3.632%
Dealer	Royal Bank of Canada	Merrill Lynch Capital Services, Inc.	JPMorgan Chase Bank, N.A.	JPMorgan Chase Bank, N.A.	Merrill Lynch Capital Services, Inc.	Merrill Lynch Capital Services, Inc.
Fair Value[(4)]	($21,708,517)	($1,859,739)	($15,296,505)	($14,571,079)	($5,097,981)	($4,882,679)
Additional Termination Events	For Dealer: Rating change below BBB- or Baa3 For City: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)	For Dealer: Rating change below BBB- or Baa3 For PAID: Rating change below BBB- or Baa3 upon insurer event (includes insurer being rated below A- or A3)

(1) On July 28, 2009, the City terminated a portion of the swap in the amount of $213,505,000 in conjunction with the refunding of its Series 2007B bonds with the Series 2009A fixed rate bonds and the Series 2009B variable rate bonds. The City made a termination payment of $15,450,000.

(2) PAID received annual fixed payments of $1,216,500 from July 1, 2004 through July 1, 2013. As the result of an amendment on July 14, 2006, $104,965,000 of the total notional amount was restructured as a constant maturity swap (the rate received by PAID on that portion was converted from a percentage of 1-month LIBOR to a percentage of the 5-year LIBOR swap rate from October 1, 2006 to October 1, 2020). The constant maturity swap was terminated in December 2009. The City received a termination payment of $3,049,000.

(3) On May 13, 2014, PAID converted a portion of the 2007B SIFMA Swap to a LIBOR-based swap in conjunction with the refunding of its Series 2007B bonds with the Series 2014A bonds. Under the conversion, PAID pays a fixed rate of 3.62% and 3.632% to JPMorgan and Merrill Lynch, respectively, and receives a floating rate of 70% of 1-month LIBOR.

(4) Fair values are as of June 30, 2017, and are shown from the City's perspective and include accrued interest.

(5) On July 15, 2014, PAID terminated a portion of the swap in the amount of $41,555,000 in conjunction with the refunding of its Series 2007B bonds with the Series 2014B fixed rate bonds. PAID made a termination payment of $4,171,000 to JPMorgan.

(6) On July 15, 2014, PAID terminated a portion of the swap in the amount of $13,840,000 in conjunction with the refunding of its Series 2007B bonds with the Series 2014B fixed rate bonds. PAID made a termination payment of $1,391,800 to Merrill Lynch.

While the City is party to several interest rate swap agreements, for which there is General Fund exposure and on which the swaps currently have a negative mark against the City, the City has no obligation to post collateral on these swaps while the City's underlying ratings are investment grade.

For more information related to certain swaps entered into in connection with revenue bonds issued for PGW, the Water Department, and the Division of Aviation, see the Fiscal Year 2016 CAFR. In addition, PICA has entered into swaps, which are detailed in the Fiscal Year 2016 CAFR.

Swap Policy

The City has adopted a swap policy for the use of swaps, caps, floors, collars and other derivative financial products (collectively, "swaps") in conjunction with the City's debt management. The swap program managed by the City includes swaps related to the City's general obligation bonds, tax-supported service contract debt issued by related authorities, debt of the Water Department, Division of Aviation, and debt of PGW. Swaps related to debt of the PICA, the School District, and the PPA are managed by those governmental entities, respectively.

The Director of Finance has overall responsibility for entering into swaps. Day-to-day management of swaps is the responsibility of the City Treasurer, and the Executive Director of the Sinking Fund Commission is responsible for making swap payments. The Office of the City Treasurer and the City Solicitor's Office coordinate their activities to ensure that all swaps that are entered into are in compliance with applicable federal, state, and local laws.

The swap policy addresses the circumstances when swaps can be used, the risks that need to be evaluated prior to entering into swaps and on an ongoing basis after swaps have been executed, the guidelines to be employed when swaps are used, and how swap counterparties will be chosen. The swap policy is used in conjunction with the City's Debt Management Policy, reviewed annually, and updated as needed.

Under the swap policy, permitted uses of swaps include: (i) managing the City's exposure to floating interest rates through interest rate swaps, caps, floors and collars; (ii) locking in fixed rates in current markets for use at a later date through the use of forward starting swaps and rate locks; (iii) reducing the cost of fixed or floating rate debt through swaps and related products to create "synthetic" fixed or floating rate debt; and (iv) managing the City's credit exposure to financial institutions and other entities through the use of offsetting swaps.

Since swaps can create exposure to the creditworthiness of financial institutions that serve as the City's counterparties on swap transactions, the City has established standards for swap counterparties. As a general rule, the City enters into transactions with counterparties whose obligations are rated in the double-A rated category or better from two nationally recognized rating agencies. If counterparty's credit rating is downgraded below the double-A rating category, the swap policy requires that the City's exposure be collateralized. If a counterparty's credit is downgraded below the A category, even with collateralization, the swap policy requires a provision in the swap permitting the City to exercise a right to terminate the transaction prior to its scheduled termination date.

Letter of Credit Agreements

The City has entered into various letter of credit agreements related to its General Fund-Supported Debt as detailed in the table below. Under the terms of such letter of credit agreements, following a purchase of the applicable bonds, the City may be required to amortize such bonds more quickly than as originally scheduled at issuance.

Table 45
Summary of Letter of Credit Agreements for General Fund-Supported Debt as of June 30, 2017

Variable Rate Bond Series	Amount Outstanding	Bond Maturity Date	Provider	Expiration Date	Rating Thresholds [1]
General Obligation Multi-Modal Refunding Bonds, Series 2009B	$100,000,000	August 1, 2031	Barclays Bank PLC	May 24, 2019	The long-term rating assigned by any one of the rating agencies to any unenhanced long-term parity debt of the City is (i) withdrawn or suspended for credit-related reasons or (ii) reduced below investment grade.
PAID Multi-Modal Lease Revenue Refunding Bonds, Series 2007B-2	$72,400,000	October 1, 2030	TD Bank	May 29, 2019	The long-term ratings assigned by at least two of the rating agencies to any unenhanced general obligation bonds of the City is (i) withdrawn or suspended for credit-related reasons, or (ii) reduced below investment grade.
PAID Multi-Modal Lease Revenue Refunding Bonds, Series 2007B-3	$44,605,000	October 1, 2030	PNC Bank	May 22, 2020	The long-term ratings assigned by at least two of the rating agencies to any unenhanced general obligation bonds of the City is (i) withdrawn or suspended for credit-related reasons, or (ii) reduced below investment grade.

[1] The occurrence of a Rating Threshold event would result in an event of default under the reimbursement agreement with the related bank.

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Recent Financings

Recent Financings. The following is a list of financings that the City has entered into since June 30, 2017. Such financings are not reflected in Tables 40-42 under the caption "DEBT OF THE CITY" nor otherwise described therein.

- In August 2017, PAID issued $52,910,000 in City Service Agreement Revenue Bonds for the benefit of the City.
- In August 2017, the City, together with PGW, issued $273,140,000 in Gas Works Revenue Bonds.
- In August 2017, the City, together with the Water Department, issued $174,110,000 in Water and Wastewater Revenue Refunding Bonds.
- In August 2017, the City issued $331,615,000 in General Obligation Bonds.

Upcoming Transactions

City Council has enacted an ordinance authorizing the City to enter into a sublease not to exceed nineteen years for property located at 400 N. Broad Street and 1501 Callowhill Street to be renovated and used as the City's police headquarters and related facilities. The City's sublease payments will be based on a market interest rate and the repayment of the master landlord's total project cost (currently estimated at $260 million) over the term of the sublease; however, the final structure of the sublease payments has not yet been determined. The City has a purchase option for the property in the ninth year of the sublease. The sublease is anticipated to be executed and effective in the first quarter of Fiscal Year 2018.

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CITY CAPITAL PROGRAM

As part of the annual budget process, the Mayor submits for approval a six-year capital program to City Council, together with the proposed operating budget. For more information on the City's budget process, see "DISCUSSION OF FINANCIAL OPERATIONS – Budget Procedure."

Certain Historical Capital Expenditures

Table 46 shows the City's historical expenditures for Fiscal Years 2013-2017 for certain capital purposes, including expenditures for projects related to transit, streets and sanitation, municipal buildings, recreation, parks, museums, and stadia, and economic and community development. The source of funds used for such expenditures are primarily general obligation bond proceeds, but also include federal, state, private, and other government funds and operating revenue. Figures in the table below are generated after the Fiscal Year closes and may not sum due to rounding.

Table 46
Historical Expenditures for Certain Capital Purposes
Fiscal Years 2013-2017

Purpose Category	2013	2014	2015	2016	2017
Transit	$ 3,895,208	$ 2,168,224	$ 1,283,307	$ 3,223,431	$ 378,229
Streets & Sanitation	63,925,744	46,806,225	63,612,248	76,350,266	43,772,678
Municipal Buildings	37,979,932	35,579,152	53,419,449	50,653,561	45,002,188
Recreation, Parks, Museums & Stadia	26,609,320	17,787,234	29,875,633	35,963,360	37,323,288
Economic & Community Development	4,654,403	11,839,066	12,714,468	16,176,644	4,570,196
TOTAL	**$137,064,607**	**$114,179,901**	**$160,905,105**	**$182,367,262**	**$131,046,579**

Table 47 shows the City's historical expenditures for Fiscal Years 2013-2017 for certain capital purposes from general obligation bond proceeds only and the percentage of the total costs covered by such proceeds in such Fiscal Years. Figures in the table below are generated after the Fiscal Year closes and may not sum due to rounding.

Table 47
Historical Expenditures for Certain Capital Purposes
(General Obligation Bond Proceeds Only)
Fiscal Years 2013-2017

Purpose Category	2013	2014	2015	2016	2017
Transit	$ 3,895,208	$ 2,168,224	$ 1,274,467	$ 3,223,431	$ 414,434
Streets & Sanitation	20,921,343	18,642,621	24,887,488	23,963,058	21,952,654
Municipal Buildings	19,108,015	27,936,597	47,163,418	40,036,844	43,400,701
Recreation, Parks, Museums & Stadia	23,403,765	15,838,047	25,494,778	25,364,901	29,135,962
Economic & Community Development	4,459,786	11,816,222	12,714,468	12,474,164	4,570,196
TOTAL	**$71,788,117**	**$76,401,711**	**$111,534,619**	**$105,062,399**	**$99,473,947**
Percentage of Total Costs	**52%**	**67%**	**69%**	**58%**	**54%**

Fiscal Year 2018-2023 Adopted Capital Program

The Fiscal Year 2018-2023 Adopted Capital Program contemplates a total budget of $9.57 billion. In the Fiscal Year 2018-2023 Adopted Capital Program, $3.33 billion is expected to be provided from federal, Commonwealth, and other sources and the remainder through City funding. The following table shows the amounts budgeted each year from various sources of funds for capital projects in the Fiscal Year 2018-2023 Adopted Capital Program.

Table 48
Fiscal Year 2018-2023 Adopted Capital Program
(Amounts in Thousands of USD)

Funding Source	2018	2019	2020	2021	2022	2023	2018-2023
City Funds--Tax Supported							
Carried-Forward Loans	$426,560	-	-	-	-	-	$426,560
Operating Revenue	22,216	$2,250	$2,250	$2,250	$2,000	$2,000	32,966
New Loans	165,206	185,942	156,450	156,978	159,945	157,035	981,556
Prefinanced Loans	4,653	-	-	-	-	-	4,653
PICA Prefinanced Loans	4,947	-	-	-	-	-	4,947
Tax Supported Subtotal	$623,582	$188,192	$158,700	$159,228	$161,945	$159,035	$1,450,682
City Funds--Self Sustaining							
Self-Sustaining Carried Forward Loans	$419,075	-	-	-	-	-	$419,075
Self-Sustaining Operating Revenue	139,345	$59,522	$56,045	$75,048	$82,091	$82,162	494,213
Self-Sustaining New Loans	638,804	636,897	645,134	629,803	643,934	650,701	3,845,273
Self-Sustaining Subtotal	$1,197,224	$696,419	$701,179	$704,851	$726,025	$732,863	$4,758,561
Other City Funds							
Revolving Funds	$9,000	$3,000	$3,000	$3,000	$3,000	$3,000	$24,000
Other Than City Funds							
Carried-Forward Other Government	$4,884	-	-	-	-	-	$4,884
Other Government Off Budget	1,338	$1,639	$1,435	$1,744	$1,717	$1,580	9,453
Other Governments/Agencies	2,300	-	-	-	-	-	2,300
Carried-Forward State	165,951	-	-	-	-	-	165,951
State Off Budget	209,147	200,791	195,945	205,504	204,846	202,860	1,219,093
State	34,350	30,259	30,266	29,763	29,787	22,849	177,274
Carried-Forward Private	115,108	-	-	-	-	-	115,108
Private	87,270	77,351	73,140	73,678	78,591	71,358	461,388
Carried-Forward Federal	262,013	-	-	-	-	-	262,013
Federal Off-Budget	26,819	39,636	69,612	9,324	3,497	-	148,888
Federal	139,934	123,324	141,938	121,961	122,460	116,336	765,953
Other Than City Funds Subtotal	$1,049,114	$473,000	$512,336	$441,974	$440,898	$414,983	$3,332,305
TOTAL	**$2,878,920**	**$1,360,611**	**$1,375,215**	**$1,309,053**	**$1,331,868**	**$1,309,881**	**$9,565,548**

LITIGATION

Generally, judgments and settlements on claims against the City are payable from the General Fund, except for claims against the Water Department, the Division of Aviation, and PGW, which are paid out of their respective funds or revenues and only secondarily out of the General Fund.

The Act of October 5, 1980, P.L. 693, No. 142, known as the "Political Subdivision Tort Claims Act," (the "Tort Claims Act") establishes a $500,000 aggregate limitation on damages for injury to a person or property arising from the same cause of action or transaction or occurrence or series of causes of action, transactions or occurrences with respect to governmental units in the Commonwealth such as the City. The constitutionality of that aggregate limitation on damages has been previously upheld by the Pennsylvania appellate courts, including in the recent decision of the Supreme Court of Pennsylvania in *Zauflik v. Pennsbury School District*, 104 A.3d 1096 (2014). Under Pennsylvania Rule of Civil Procedure 238, delay damages are not subject to the $500,000 limitation. The limit on damages is inapplicable to any suit against the City that does not arise under state tort law, such as claims made against the City under federal civil rights laws. In two instances over the last several years, legislation has been introduced in the General Assembly that would have increased such $500,000 limitation. In both such instances, the legislation was not reported out of committee or scheduled for a vote.

General Fund

The following table presents the City's aggregate losses from settlements and judgments paid out of the General Fund for Fiscal Years 2013-2017 and the budgeted amount for Fiscal Year 2018.

Table 49
Aggregate Losses – General and Special Litigation Claims (General Fund)
Fiscal Years 2013-2017 (Actual) and 2018 (Budget)
(Amounts in Millions of USD)

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Budget 2018
Aggregate Losses	$30.3	$41.0	$37.3	$41.2	$38.3	$44.9

Sources: The City, Office of Budget and Program Evaluation – Budget Bureau, Indemnity Account, Status Reports.

The current estimate of settlements and judgments from the General Fund for Fiscal Year 2018 is $50.6 million. Such estimate is based on the Law Department's internal calculations using (i) the "Possible Costs" listed in its Quarterly Litigation Reports, (ii) the 3-year average cost for closed cases, and (iii) current year to date spending reports. Based on the Revised Twenty-Sixth Five-Year Plan, the current estimate of settlements and judgments from the General Fund for Fiscal Years 2019-2022 is $44.9 million for each such Fiscal Year.

In budgeting for settlements and judgments in the annual operating budget and projecting settlements and judgments for each five-year plan, the City bases its estimates on past experience and on an analysis of estimated potential liabilities and the timing of outcomes, to the extent a proceeding is sufficiently advanced to permit a projection of the timing of a result. General and special litigation claims are budgeted separately from back-pay awards and similar settlements relating to labor disputes. Usually, some of the costs arising from labor litigation are reported as part of current payroll expenses.

In addition to routine litigation incidental to performance of the City's governmental functions and litigation arising in the ordinary course relating to contract and tort claims and alleged violations of law, certain special litigation matters are currently being litigated and/or appealed and adverse final outcomes of such litigation could have a substantial or long-term adverse effect on the General Fund. These proceedings involve: (i) environmental-related actions and proceedings in which it has been or may be alleged that the City is liable for damages, including but not limited to property damage and bodily injury, or that the City should pay fines or penalties or the costs of response or remediation, because of the alleged generation, transport, or disposal of toxic or otherwise hazardous substances by the City, or the alleged disposal of such substances on or to City-owned property; (ii) contract disputes and other commercial litigation; (iii) union arbitrations and other employment-related litigation; (iv) potential and certified class action suits; and (v) civil rights litigation. The ultimate outcome and fiscal impact, if any, on the General Fund of the claims and proceedings described in this paragraph are not currently predictable. See Note 8 to the Fiscal Year 2016 CAFR, "Contingencies – Primary Government – Claims and Litigation."

In addition, see "REVENUES OF THE CITY – Other Taxes," for a discussion of litigation relating to the Philadelphia Beverage Tax, "REVENUES OF THE CITY – Real Property Taxes Assessment and Collection," for a discussion of litigation relating to the reassessment of commercial property in tax year 2018, and "REVENUES OF THE CITY – Proposals to Reduce Federal and/or State Funding," for a discussion of litigation relating to the potential withholding of certain federal funds.

Water Fund

Various claims have been asserted against the Water Department and in some cases lawsuits have been instituted. Many of these Water Department claims have been reduced to judgment or otherwise settled in a manner requiring payment by the Water Department. The following table presents the Water Department's aggregate losses from settlements and judgments paid out of the Water Fund for Fiscal Years 2013-2017 and the budgeted amount for Fiscal Year 2018. The current estimate for Fiscal Year 2018 is $9.3 million. The Water Fund is the first source of payment for any of the claims against the Water Department.

Table 50
Aggregate Losses – General and Special Litigation Claims (Water Fund)
Fiscal Years 2013-2017 (Actual) and 2018 (Budget)
(Amounts in Millions of USD)

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Budget 2018
Aggregate Losses	$5.1	$6.1	$3.8	$5.4	$7.0	$6.5

Sources: The City, Office of Budget and Program Evaluation – Budget Bureau, Indemnity Account, Status Reports.

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Aviation Fund

Various claims have been asserted against the Division of Aviation and in some cases lawsuits have been instituted. Many of these Division of Aviation claims have been reduced to judgment or otherwise settled in a manner requiring payment by the Division of Aviation. The following table presents the Division of Aviation's aggregate losses from settlements and judgments paid out of the Aviation Fund for Fiscal Years 2013-2017 and the budgeted amount for Fiscal Year 2018. The current estimate for Fiscal Year 2018 is $1.2 million. The Aviation Fund is the first source of payment for any of the claims against the Division of Aviation.

Table 51
Aggregate Losses – General and Special Litigation Claims (Aviation Fund)
Fiscal Years 2013-2017 (Actual) and 2018 (Budget)

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Budget 2018
Aggregate Losses	$1.4 million	$665,527	$750,793	$1.3 million	$1.6 million	$2.5 million

Sources: The City, Office of Budget and Program Evaluation – Budget Bureau, Indemnity Account, Status Reports.

PGW

Various claims have been asserted against PGW and in some cases lawsuits have been instituted. Many of these PGW claims have been reduced to judgment or otherwise settled in a manner requiring payment by PGW. The following table presents PGW's settlements and judgments paid out of PGW revenues, with accompanying reserve information, in PGW Fiscal Years 2013 through 2017. PGW revenues are the first source of payment for any of the claims against PGW. PGW currently estimates approximately $4.4 million and $3.0 million in settlements and judgments for PGW Fiscal Years 2018 and 2019, respectively.

Table 52
Claims and Settlement Activity (PGW)
PGW Fiscal Years 2013-2017
(Amounts in Thousands of USD)

Fiscal Year (ending August 31)	Beginning of Year Reserve	Current Year Claims and Adjustments	Claims Settled	End of Year Reserve	Current Liability Amount
2013	$11,102	$2,616	($3,307)	$10,411	$4,925
2014	$10,411	$2,498	($2,965)	$9,944	$4,728
2015	$9,944	$3,610	($2,042)	$11,512	$5,011
2016	$11,512	$2,022	($3,041)	$10,493	$5,307
2017	$10,493	$6,681	($2,797)	$14,377	$4,627

Source: PGW's audited financial statements.

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APPENDIX IV

SUMMARY OF CERTAIN AUTHORIZATIONS FOR THE 2017 BONDS

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APPENDIX IV
SUMMARY OF CERTAIN AUTHORIZATIONS
FOR THE 2017 BONDS

The following are summaries of certain provisions and/or definitions of The First Class City Revenue Bond Act (the "Act"), the Amended and Restated General Airport Revenue Bond Ordinance of 1995, as amended and supplemented through and including the Fifteenth Supplemental Ordinance to the General Ordinance and the Sixteenth Supplemental Ordinance to the General Ordinance (collectively, the "General Ordinance"). The summaries are not, and should not be regarded as, complete statements of the provisions of these documents and legislation. Reference is made to the Act, the General Ordinance and the Fifteenth Supplemental Ordinance, copies of which are available from the Office of the Director of Finance, 1401 J. F. Kennedy Boulevard, Municipal Services Building, Room 1330, Philadelphia, Pennsylvania 19102, for the complete terms and provisions thereof.

THE FIRST CLASS CITY REVENUE BOND ACT

The 2017 Bonds are being issued under the terms of The First Class City Revenue Bond Act and the General Ordinance. The following summarizes the terms of The First Class City Revenue Bond Act. All capitalized terms used in the following summary of The First Class City Revenue Bond Act are defined as in The First Class City Revenue Bond Act and may be differently referenced in other portions of this Official Statement.

General Authorization; Definition of Project; Bonds to be Special Obligations

The Act is intended to provide a comprehensive authorization to the City and any other Pennsylvania city of the first class to issue revenue bonds ("Bonds") to finance various types of projects.

The Act defines "Project" to include, among other things, any buildings, structures, facilities or improvements of a public nature, the related land, rights or leasehold estates in land and the related furnishings, machinery, apparatus or equipment of a capital nature, which the City is authorized to own, construct acquire, improve, lease, operate or support; any item of construction, acquisition or extraordinary maintenance or repair thereof, the City’s share of the cost of any of the foregoing undertaken jointly with others; and any combination of the foregoing or any undivided portion of the cost of any of the foregoing as may be designated a project by the City for financing purposes and in respect of which the City may reasonably be expected to receive "Project Revenues" (as defined in the act), which include, among other things, all revenues generated by the Project financed.

Bonds issued under the Act are required to be payable solely from Project Revenues and to be secured solely by such revenues and by any reserve funds which may be created in connection with the Bonds. The Bonds are not permitted to pledge the credit or taxing power of the City, to create a debt or charge against the tax or general revenues of the City, or to create a lien against any City property other than the Project Revenues pledged therefore and reserve funds established in respect of the Bonds. The Bonds are excluded from the calculation of the City’s debt-incurring capacity under the Pennsylvania Constitution.

Estimates of Future Revenues

To establish that Project Revenues will be sufficient to amortize all Bonds outstanding, the Act requires a finding to be made in the ordinance authorizing the issuance of the Bonds that the pledged Project Revenues will be sufficient to pay any prior parity charges on such pledged Project Revenues and the principal of and interest on the Bonds. The finding is to be based on a report of the chief fiscal officer of the City filed with the City Council and supported by appropriate schedules and summaries. The report of the chief fiscal officer of the city may be based on a report of the airport consultant employed by the City to evaluate the Project.

For the purposes of estimating future Project Revenues, the Act provides that only the following shall be included (i) those rents, rates, tolls or charges to the general public which, under existing authorizations, and in effect as of the date of calculation, will be reasonably collectable during the fiscal year under the rate schedule which is or will be in effect during such fiscal year, or which may be imposed by administrative action without further legislation: (ii) those bulk payments which may be imposed under subsisting legislation or which are provided under subsisting agreements or are the subject of an expression of intent by the prospective obligor deemed reliable by the chief fiscal officer of the City; and (iii) those governmental subsidies or payments which, under subsisting legislation, are subject to reasonably precise calculation and, unless stated in such legislation or authorization to be of an annually or more frequent recurring nature, are payable in such year.

Details of Bonds and City Covenants

The Act provides that the ordinance authorizing the issuance of the Bonds shall fix the aggregate amounts of the Bonds to be issued from time to time and determine, or designate officers of the City to determine, the form and details of the Bonds. The City may include in its Bond ordinance various covenants with Bondholders, including covenants governing the imposition, collection and disbursement of Project Revenues, Project operation and maintenance, the establishment, segregation, maintenance, custody, investment and disbursement of sinking funds and reserves, the issuance of additional priority or parity bonds, the redemption of the Bonds and such other provisions as the City deems necessary or desirable in the interest or for the protection of the City or of such Bondholders. Under the Act the covenants, terms and provisions of the Bond ordinance made for the benefit of Bondholders constitute contractual obligations of the City, but such covenants (within limitations, if any, fixed by the Bond ordinance) may be modified by agreement with a majority in interest of the Bondholders or such larger portion thereof as may be provided in the Bond ordinance.

Sinking Fund

The Act requires that the Bond ordinance shall provide for the establishment of a sinking fund for the payment of the principal of and interest on the Bonds. Payment into such sinking fund shall be made in annual or more frequent installments and shall be sufficient to pay or accumulate for payment all principal of and interest on the Bonds for which the sinking fund is established as and when the same shall become due and payable. The sinking fund shall be managed by the chief fiscal officer of the City and moneys therein to the extent not currently required, shall be invested, subject to limitations established by the Bond ordinance and the Act. Interest and profits from investment of moneys in the sinking fund shall be added to such fund and may be applied in reduction of or to complete required deposits into the sinking fund. Excess moneys in the sinking fund shall be repaid to the City for its general purposes or may be applied as may be provided in the Bond ordinance. All moneys deposited in the sinking fund are subjected to a perfected security interest for the benefit of the holders of the Bonds, for which the fund is established, until properly disbursed. This perfected security interest also applies, under the terms of the Act, to moneys in the sinking fund reserve created as part of the sinking fund by the General Ordinance.

Refunding

Any outstanding Bonds issued under the Act or other bonds issued for purposes for which bonds are issuable under the Act, whether issued before or after the effective date of the Act, may from time to time be refunded by Bonds issued under the Act and are subject to the same protections and provisions required for the issuance of an original issue of Bonds. The last stated maturity date of the refunding Bonds may not be later than ten years after the last stated maturity date of the Bonds to be refunded. If outstanding Bonds are refunded in advance of their maturity or redemption date, the principal thereof and interest thereon to payment or redemption date, and redemption premium payable, if any, will no longer be deemed to be outstanding obligations when the City shall have deposited with a bank, bank and trust company or trust company, funds irrevocably pledged to the purpose, which are represented by demand deposits, interest bearing time accounts, savings deposits, certificates of deposit (insured or secured as public funds) or specified obligations of the United States or of the Commonwealth of Pennsylvania to effect such redemption or payment or, if interest on the deposited funds to the time of disbursement is also pledged, sufficient, together with such interest, for such purpose and, in the case of redemption, shall have duly called the Bonds for redemption or given irrevocable instructions to give notice of such call.

Validity of Proceedings; Suits and Limitations Thereon

Prior to delivery of any Bonds, the City must file with the Court of Common Pleas a transcript of the proceedings authorizing the issuance of the Bonds. If no action is brought on or before the twentieth day following the date of recording of the transcript, the validity of the proceedings, the City's right to issue the Bonds, the lawful nature of the purpose for which the Bonds are issued, and the validity and enforceability of the Bonds in accordance with their terms may not thereafter be inquired into judicially, in equity, at law, or by civil or criminal proceedings, or otherwise, either directly or collaterally, except where a constitutional question is involved.

Negotiable Instrument

The Act provides that Bonds issued thereunder shall have the qualities and incidents of securities under article 8 of the Uniform Commercial Code of the Commonwealth and shall be negotiable instruments.

Exemption from State Taxation

The Commonwealth pledges with the holders from time to time of Bonds issued under the Act that such Bonds, and the interest thereon, shall at all times be free from taxation within and by the Commonwealth, but this exemption does not extend to gift, succession or inheritance taxes or any other taxes not levied directly on the Bonds and the receipt of interest thereon.

Defaults and Remedies

If the City should fail to pay the principal of or interest on any Bond when the same shall be due and payable, the remedy provisions of the Act permit the holder of such Bond, subject to the limitations described below, to recover the amount due in an action in Philadelphia Common Pleas Court; but a judgment rendered in favor of the Bondholder in such an action is collectible only from Pledged Amounts. The holders of 25% or more in aggregate principal amount of the Bonds of such series then outstanding which are in default, whether because of failure of timely payment which is not cured in 30 days, or failure of the City to comply with any other provisions of the Bonds or any Bond ordinance, may appoint a trustee to represent them. On being appointed, the trustee shall be the exclusive representative for the affected Bondholders and the individuals rights of action described above shall no longer be available. The trustee may, and upon written request of the holders of 25% or more in aggregate principal amount of Bonds in default, and on being furnished with indemnity satisfactory to it, shall, take one or more of the following actions, which, if taken, shall preclude similar action, whether previously or subsequently initiated, by individual holders of Bonds; enforce, by proceedings at law or in equity, all rights of the holders of the Bonds; bring suit on the Bonds; bring suit in equity to require the City to make an accounting for all pledged Project Revenues received and to enjoin unlawful action or action in violation of the holders' rights; and, after 30 days' written notice to the City, and subject to any limitations in the Bond ordinance, declare the unpaid principal of the Bonds to be immediately due and payable, together with interest thereon at the rates stated in the Bonds until final payment, and upon the curing of all defaults, to annual such declaration. In any suit, action or proceeding by or on behalf of holders of defaulted Bonds, trustee fees and expenses, including operating costs of a project and reasonable counsel fees, shall constitute taxable costs, and all such costs and expenses allowed by the Court shall be deemed additional principal due on the Bonds and shall be paid in full from any recovery prior to any distribution to the holders of the Bonds. The General Ordinance limits any such recovery to Pledged Amounts. The trustee shall make distribution of any sums so collected in accordance with the Act.

Refunding with General Obligation Bonds

Upon certification by the City's chief fiscal officer that Project Revenues pledged for the payment of Bonds have become insufficient to meet the requirements of the ordinance or ordinances under which the Bonds were issued, the City Council is empowered, subject to applicable Pennsylvania constitutional debt limitations, to authorize the issuance and sale of general obligation refunding bonds of the City, without limitations as to rate of interest, in such principal amount (subject to the aforesaid limitations on indebtedness) as may be required, together with other available funds, to pay and redeem such Bonds, together with interest to the payment or redemption date and redemption premium, if any.

THE AMENDED AND RESTATED GENERAL AIRPORT REVENUE BOND ORDINANCE

The 2017 Bonds are being issued under the terms of the General Ordinance and pursuant to the Fifteenth Supplemental Ordinance. The Fifteenth Supplemental Ordinance sets forth the specific terms of the 2017 Bonds. The following summarizes the terms of the General Ordinance. All capitalized terms used in the following summary of the General Ordinance are defined as in the General Ordinance and may be differently referenced in other portions of this Official Statement.

Certain Definitions

The following is a summary of certain terms defined in the General Ordinance and used in this Official Statement. Reference should be made to the General Ordinance for a full and complete statement of its terms and any capitalized terms used herein but not otherwise defined.

"Accreted Value" means, with respect to Capital Appreciation Bonds, the amount to which, as of any specified time, the Original Value of any such Capital Appreciation Bond has been increased by accretion, all as may be provided in an applicable Supplemental Ordinance.

"Act" means The First Class City Revenue Bond Act, approved October 18, 1972 (Act No. 234, 53 P.S. §15901 to 15924), as from time to time amended.

"Airport System" means the Airport and Northeast Philadelphia Airport, as such system currently exists or hereafter may be developed, expanded, extended or improved from time to time.

"Amended and Restated General Airport Revenue Bond Ordinance" or "General Ordinance" means the Amended and Restated General Airport Revenue Bond Ordinance, as amended from time to time by one or more Supplemental Ordinances in accordance with Article V or Article X of the Amended and Restated General Airport Revenue Bond Ordinance.

"Amounts Available for Debt Service" means for any particular period, Project Revenues for that period plus: (a) Passenger Facility Charges which are legally available to pay Debt Service Requirements with respect to such particular period to the extent such Passenger Facility Charges have been pledged under a Supplemental Ordinance, (b) grants or moneys received from private persons or public agencies, either federal, state or local, directly or indirectly for the benefit of the Airport System, to the extent deposited in the Sinking Fund to be used for Debt Service Requirements, and (c) that portion of the Aviation Operating Fund attributable to Amounts Available for Debt Service.

"Assumed Amortization Period" means, with respect to Balloon Bonds, the period of time specified in clause (a) or clause (b), as selected by the City: (a) five years; or (b) the period of time exceeding five years set forth in an Investment Banker's Certificate delivered to the City, as being not longer than the maximum period of time over which indebtedness having comparable terms and security issued or incurred by similar issuers of comparable credit standing would need to be amortized, if then being offered, in order to be marketable on reasonable and customary terms.[1]

Notwithstanding the foregoing, such period shall not be in excess of (i) the maximum amortization period permitted by the Act, or (ii) the useful life of the assets to be financed, or the remaining useful life of the assets being refinanced.

"Assumed Interest Rate" means with respect to Balloon Bonds, the rate per annum (determined as of the last day of the calendar month next preceding the month in which the determination of Assumed Interest Rate is being made) set forth in an Investment Banker's Certificate delivered to the City, as being not lower than the lowest rate of interest at which indebtedness having comparable terms, security and federal tax status amortized on a level debt service basis over a period of time equal to the Assumed Amortization Period, and issued or incurred by similar issuers of comparable credit standing would, if being offered as of such last day of the calendar month, be marketed at par on reasonable and customary terms.[2]

"Authority" shall mean a municipal authority created pursuant to the Municipal Authorities Act of 1945, as amended, or an authority created pursuant to any other applicable statute or to another entity.

"Aviation Capital Fund" means the Aviation Capital Fund established in Section 4.04 of the General Ordinance.

"Aviation Funds" means, collectively, the Aviation Operating Fund, the Aviation Capital Fund, the Sinking Fund (including the Sinking Fund Reserve Account), the Subordinate Obligations Fund, and the Renewal Fund.

"Aviation Operating Fund" means the operating fund of the Division of Aviation which is so designated in the City's books and records and which is established in Section 4.04 of the General Ordinance and described in Sections 4.05 and 4.06 of the General Ordinance.

"Balloon Bonds" means any Series of Bonds, or any portion of a Series of Bonds, designated by a Determination as Balloon Bonds, (a) 25% or more of the principal payments (including mandatory sinking fund payments) of which are due in a single year, or (b) 25% or more of the principal of which may, at the option of the holder or holders thereof, be redeemed at one time; *provided, however* that a

[1] Upon the consent of Holders of at least sixty-seven percent (67%) of the Outstanding Bonds, this definition will be deleted.

[2] Upon the consent of Holders of at least sixty-seven percent (67%) of the Outstanding Bonds, this definition will be deleted.

Variable Rate Bond which is able to be redeemed at the option of the Holder shall not constitute a Balloon Bond.

"Bond" or "Bonds" means any airport revenue bond, note, commercial paper or obligation of the City, authorized and issued, or assumed, under one or more supplemental ordinances amending and supplementing the General Airport Revenue Bond Ordinance of 1978, or the General Ordinance.

"Bond Committee" means the Mayor, City Controller and City Solicitor or a majority thereof.

"Bond Counsel" means a firm of nationally recognized bond counsel selected by the City.

"Bondholder" or "Holder" means any registered owner of Bonds or holder of Bonds issued in coupon form at the time Outstanding.

"Capital Appreciation Bonds" means any Bonds issued under the General Ordinance which do not pay interest either until maturity or until a specified date prior to maturity, but whose Accreted Value increases periodically by accretion to a final Maturity Value.

"City" means the City of Philadelphia, Pennsylvania.

"City Controller" means the head of the City's auditing department as provided by the Philadelphia Home Rule Charter.

"City Solicitor" means the head of the City's law department as provided by the Philadelphia Home Rule Charter.

"Code" means the Internal Revenue Code of 1986, as amended.

"Consultants" means nationally recognized Independent registered consulting engineers, registered architects, certified public accountants or other Independent qualified experts having broad experience in the operation of airport systems of the magnitude and scope of the Airport System.

"Cost Accounting System" means the system for accounting for the collection, allocation, and reporting of revenues, expenses and debt service associated with the operation of the Airport System in accordance with Cost Centers as provided for in the Airline Agreements, or if none of the Airline Agreements is in effect, as determined by the City, from time to time.

”Cost Centers" means the cost areas to be used in the Cost Accounting System as set forth in the Airline Agreements, or if none of the Airline Agreements is in effect, then as determined by the City from time to time. Such Cost Centers shall initially consist of the Airport Area Cost Center, the Terminal Area Cost Center, the Other Buildings and Area Cost Center, the Northeast Philadelphia Airport Cost Center, the Outside Terminal Area Cost Center and the Airport Services Cost Center, all as defined in the Airline Agreements.

"Credit Facility" means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that is provided by a commercial bank, insurance company or other institution, with a current long term rating (or whose obligations thereunder are guaranteed by a financial institution with a long term rating) from Moody's and S&P (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is, at the time in question, rating Bonds Outstanding under the General Ordinance) not lower than the credit rating of any Series of Bonds which has no Credit Facility, to provide support for a Series of Bonds, and shall include any Substitute Credit Facility.[3]

"Debt Service Account" means the Debt Service Account of the Sinking Fund established in Section 4.04 of the General Ordinance.

"Debt Service Requirements," with reference to a specified period, means:

A. amounts required to be paid into any mandatory sinking fund established for the Bonds, for the benefit of Bondholders during the period;

B. amounts needed to pay the principal or redemption price of Bonds maturing during the period and not to be redeemed at or prior to maturity through any sinking fund established for the Bonds, for the benefit of the Bondholders;

C. interest payable on Bonds during the period, with adjustments for (i) capitalized interest and accrued interest, (ii) any investment income realized from investments in the Aviation Capital Fund, Sinking Fund Reserve Account and Renewal Fund to the extent that such investment proceeds are deposited in or credited to the Debt Service Account of the Sinking Fund, and (iii) all net amounts payable to the City under a Qualified Swap during such period (other than termination amounts payable by a Qualified Swap Provider due as a result of termination of a Qualified Swap); and

D. all net amounts, if any, due and payable by the City under a Qualified Swap (other than termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap), a Credit Facility, or a Standby Agreement for Bonds during such period secured by a parity pledge of Project Revenues as set forth in a Determination or Supplemental Ordinance pursuant to which the related Bonds were issued.

For purposes of estimating Debt Service Requirements for any future period, (i) any Option Bond outstanding during such period shall be assumed to mature on the stated maturity date thereof, except that the principal amount of any Option Bond that has been tendered for payment before its stated maturity date and has not at the time of such estimate been remarketed, shall be deemed to accrue on the date required for payment pursuant to the terms of the Standby Agreement; and (ii) Debt Service Requirements on Bonds for which the City has entered into a Qualified Swap shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed or variable rate payable by the City on the Qualified Swap or, if applicable and if greater than such stated rate, the applicable rate for any Bonds issued in connection with the Qualified Swap adjusted, in the case of a variable rate obligation, as provided in Section 5.01 of the General Ordinance; provided that if the Qualified Swap Provider's payments under the Qualified Swap are based on an index, then, Debt Service Requirements on such Bonds shall be calculated using the sum of (i) the interest rate on the Bonds, and (ii) the difference between the fixed rate obligation of the City under the Swap Agreement and such index; provided, further that, for purposes of projecting the difference in (ii) above, the City shall be entitled to assume that the

[3] Upon the consent of Holders of at least sixty-seven percent (67%) of the Outstanding Bonds, the definition of "Credit Facility" will be amended as follows:

> "Credit Facility" means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that is provided by a commercial bank, insurance company or other institution, with a current long term rating in at least the "A" category by a Rating Agency at the time the Credit Facility is obtained by the City.

difference will be equal to the average differential during the period of twenty-four (24) consecutive calendar months preceding the date of calculation or, if the Swap Agreement was entered into less than twenty-four (24) months prior thereto, the average differential since the date the Swap Agreement was entered into.

Calculation of Debt Service Requirements with respect to Variable Rate Bonds and Balloon Bonds shall be subject to adjustment as permitted by Section 5.01(b) of the General Ordinance.

"Customer Facility Charges" means all customer facility charges collected pursuant to applicable law.

"Designated PFC Revenues for Debt Service" mean Passengers Facility Charges made available to pay the Debt Service Requirements on one or more Series of Bonds during any period pursuant to the General Ordinance.

"Determination" means a determination by the Bond Committee regarding certain matters relating to the issuance of a Series of Bonds, made pursuant to the General Ordinance or the Supplemental Ordinance providing for the issuance of such Series of Bonds.

"Director of Finance" means the chief financial officer of the City as established by the Philadelphia Home Rule Charter.

"Division of Aviation" means the division of the Department of Commerce of the City responsible for the maintenance, improvement, repair and operation of the Airport System and for the construction of additional facilities for the Airport System or any successor division or Department of the City which is charged by law with such responsibility.

"Effective Date" shall have the meaning set forth in Article I of the General Ordinance.

"Exchange Agreement" means, to the extent from time to time permitted by applicable law, any interest exchange agreement, interest rate swap agreement, currency swap agreement or other contract or agreement, other than a Qualified Swap that has not been deemed to be an Exchange Agreement pursuant to Section 3.12 of the General Ordinance, authorized, recognized and approved by a Supplemental Ordinance or Determination as an Exchange Agreement and providing for (i) certain payments by the City, and (ii) payments by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose obligations under an Exchange Agreement are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability are rated at all times in one of the three highest rating categories (without regard to gradation) by Moody's and S&P (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance) or the equivalent thereof by any successor thereto as of the date the Exchange Agreement is entered into; which payments by the City and counterparty are calculated by reference to fixed or variable rates.

"Existing Bonds" means any Bonds to the extent the lien of such bonds is not defeased on or prior to the Effective Date of the General Ordinance, which Existing Bonds shall be specified in a certificate of the Director of Finance on the Effective Date and thereafter shall be secured by the General Ordinance.

"Financial Consultant" means a firm of investment bankers, a financial consulting firm, a firm of certified public accountants or any other firm which is qualified to calculate amounts required to be rebated to the United States pursuant to Section 148(f) of the Code.

"Fiscal Agent" means a bank or other entity designated as such pursuant to Section 7.01 of the General Ordinance or its successor.

"Fiscal Year" means the fiscal year of the City.

"Fitch" means Fitch Investors Service and any successor thereto.

"General Airport Revenue Bond Ordinance of 1978" means the General Airport Revenue Bond Ordinance of 1978, approved March 16, 1978, as amended and supplemented from time to time.

"General Obligation Bonds" means the general obligation bonds of the City issued and outstanding from time to time to finance, in whole or in part, improvements to the Airport System and adjudged, pursuant to the Constitution and laws of the Commonwealth of Pennsylvania, to be self-sustaining on the basis of expected Project Revenues.

"Government Obligations" means direct noncallable obligations of, or obligations of the principal of and interest on which are fully and unconditionally guaranteed as to full and timely payment by, the United States of America.

"Interdepartmental Charges" means the actual charges for services performed for the Division of Aviation by all officers, departments, boards or commissions of the City which are included in the computation of Operating Expenses of the Division of Aviation and allocable to the Airport System.

"Independent" means a person who is not a salaried employee or elected or appointed official of the City; provided, however, that the fact that such person is retained regularly by or transacts business with the City shall not make such person an employee within the meaning of this definition.

"Investment Banker's Certificate" means a written estimate of an investment banker selected by the City and experienced in underwriting indebtedness of the character of the Bonds in question.[4]

"Maturity Value" with respect to Capital Appreciation Bonds means the amount due on the maturity date.

"Moody's" means Moody's Investors Service and any successor thereto.

"Net Operating Expenses" means Operating Expenses exclusive of Interdepartmental Charges. On and after the date on which a transaction described in Section 9.01 of the General Ordinance is completed, Net Operating Expenses may include Interdepartmental Charges at the written direction of the City.

"Non-Parity Sinking Fund Reserve Requirement" means any Sinking Fund Reserve Requirement referred to in clause (ii) of the definition of "Sinking Fund Reserve Requirement" as specified in a Supplemental Ordinance.

"Non-Parity Sinking Fund Reserve Account" means any account of the Sinking Fund Reserve Account created pursuant to a Supplemental Ordinance for a particular Series of Bonds that will not be

[4] Upon the consent of Holders of at least sixty-seven percent (67%) of the Outstanding Bonds, this definition will be deleted.

secured by the Parity Sinking Fund Reserve Account, and for which a Non-Parity Sinking Fund Reserve Requirement applies.

"Northeast Philadelphia Airport" means the airport facility operated by the Division of Aviation, and located in the northeast portion of the City as such facility currently exists or hereafter may be developed, extended or improved from time to time.

"NSS General Obligation Bonds" means the general obligation bonds of the City issued and outstanding from time to time to finance, in whole or in part, improvements to the Airport System that have not been adjudged to be self-sustaining on the basis of expected Project Revenues.

"Operating Expenses" means all costs and expenses of the Airport System paid from Project Revenues to operate and maintain in good operating condition during each Fiscal Year those portions of the Airport System from which revenues are derived and which are included within the definition of Project Revenues, and shall include, without limitation, salaries and wages, purchases of services, interest on temporary borrowings to be paid from Bonds, costs of materials, supplies and equipment that can be expensed, maintenance costs, costs of any property or the replacement thereof or for any work or project, related to the Airport System having an estimated life or usefulness and a cost less than minimum standards for capitalization established by the Division of Aviation's accounting policies (provided such minimum standards shall in no event be less than the standards set forth in the City Charter of the City), pension and welfare plan and worker's compensation requirements, unemployment compensation requirements, taxes and payments in lieu of taxes, insurance premiums, provisions for claims, refunds and uncollectible receivables and Interdepartmental Charges, all consistently determined in accordance with the accrual basis of accounting adjusted to meet the particular requirements of the Airline Agreements and the Ordinance, consistently applied, but Operating Expenses shall exclude depreciation, amortization, and except as expressly set forth above, Debt Service Requirements and amounts due under Subordinate Obligations and Exchange Agreements. Operating Expenses shall also exclude debt service on General Obligation Bonds and NSS General Obligation Bonds. Aggregate financing payments under capitalized lease agreements shall be payable as Operating Expenses to the extent payments under such capitalized lease agreements either (i) do not constitute Capital Expenditures under the Airline Agreements, or (ii) constitute Capital Expenditures under the Airline Agreements and have not been disapproved by the Majority-in-Interest under the Airline Agreements. Any financing payments on capitalized lease agreements not satisfying the requirements of either clause (i) or (ii) above, may be payable in accordance with Section 4.06(i) of the General Ordinance.

"Option Bond" means any Bond which by its terms may be tendered by and at the option of the Holder thereof for payment by the City prior to its stated maturity date or the maturity date of which may be extended by and at the option of the Holder thereof.

"Ordinance" means the General Ordinance, as amended from time to time by one or more Supplemental Ordinances in accordance with Article V or Article X of the General Ordinance.

"Original Value" with respect to Capital Appreciation Bonds means the principal amount paid by the initial purchasers on the date of original issuance.

"Outside Terminal Area" shall have the meaning ascribed in the Airline Agreements.

"Outstanding" when used with reference to Bonds, means, as of any date, all Bonds theretofore or thereupon being issued and delivered subject to the General Airport Revenue Bond Ordinance of 1978 or the General Ordinance except (i) any Bonds canceled by the Fiscal Agent at or prior to such date; (ii) Bonds (or portion of Bonds) for the payment or redemption of which moneys, equal to the principal amount, Accreted Value or redemption price thereof, as the case may be, with interest (except to the extent of any Capital Appreciation Bonds) to the date of maturity or redemption date, shall be held in trust under the General Ordinance and set aside for such payment or redemption, provided that if such Bonds (or portions of Bonds) are to be redeemed, notice of such redemption shall have been given as provided in Article VI of the General Ordinance or provision satisfactory to the Fiscal Agent shall have been made for the giving of such notice; (iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant to Article III or Section 6.06 of the General Ordinance; and (iv) Bonds deemed to have been paid as provided in Section 11.01 of the General Ordinance.

"Parity Sinking Fund Reserve Requirement" means the Sinking Fund Reserve Requirement described in clause (i) of the definition of " Sinking Fund Reserve Requirement."

"Parity Sinking Fund Reserve Account" means the Sinking Fund Reserve Account created pursuant to the first paragraph of Section 4.09 of the General Ordinance.

"Passenger Facility Charges" means all passenger facility charges collected pursuant to applicable law.

"Payments-in-Aid of Outside Terminal Area" means the payment-in-aid of the Outside Terminal area required to be made by the Signatory Airlines pursuant to the Airline Agreements.

"Permitted Investments" shall mean any of the following obligations, but only to the extent the same are legal for investment of funds of the City at the time, under applicable law:

(a) Government Obligations;

(b) Qualified Rebate Fund Securities;

(c) Bonds, notes or other obligations of United States government agencies issued by the Farmers Home Administration, Federal Financing Bank, Federal Housing Administration, General Services Administration, Government National Mortgage Association, Resolution Funding Corporation, U.S. Maritime Administration, Small Business Administration, Federal Home Loan Banks, Federal Home Loan Mortgage Corporation, Federal National Mortgage Association, and Student Loan Marketing Association;

(d) Interest-bearing time or demand deposits, or certificates of deposit with a maturity date of no longer than twenty four months from the date of the investment, or other similar arrangements with any institution (including the Fiscal Agent or its affiliates) with a bond or deposit rating at all times in the higher of (i) the rating on the Bonds Outstanding under the General Ordinance, or (ii) one of the three highest rating categories (without regard to gradation), by S&P and Moody's (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance); with a maturity date of no longer than twenty four months from the date of the investment, provided that such deposits, certificates, and other arrangements are fully insured by the Federal Deposit Insurance Corporation through the Bank Insurance Fund or Savings Association Insurance Fund, or to the extent not insured, are secured by a pledge of collateral as provided by laws applicable to funds of the City of Philadelphia;

(e) Commercial paper (having original maturities of not more than 270 days) rated at all times P-1 or A-1+ by Moody's and S&P, respectively, however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance;

(f) Investments in money market funds rated at all times in one of the two highest rating categories (without regard to gradation) by S&P and Moody's (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance);

(g) Repurchase agreements with a term not exceeding twenty four months with the Fiscal Agent or any bank with a capital and surplus of at least $100,000,000 and a bond or deposit rating at all times in the higher of (i) the rating on the Bonds Outstanding under the General Ordinance, or (ii) one of the three highest rating categories of S&P and Moody's (provided that, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance) which bank is a member of the Federal Reserve System, or with government bond dealers recognized as primary dealers by the Federal Reserve Bank of New York, that are collateralized with Permitted Investments described in (a) or (b) above, having a market value at the time of purchase (inclusive of accrued interest) at least equal to 102% of the full amount of the repurchase agreement and which Permitted Investments shall be held by a third party custodian which is a bank or trust company pursuant to a third party custodial agreement;

(h) General Obligation bonds of corporations rating in one of the two highest rating categories (without regard to gradation) by Moody's and S&P, provided that, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance;

(i) Collateralized mortgage obligations which are rated in one of the two highest rating categories (without regard to gradation) by Moody's and S&P, with a maturity date no later than two years from the date of investment; provided that the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance;

(j) Obligations of the Commonwealth or any municipality or other political subdivision of the Commonwealth with a maturity date no later than two years from the date of investment, rated by Moody's and S&P in one of the three highest rating categories (without regard to gradation); provided that, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bond Outstanding under the General Ordinance; and

(k) Any other obligation approved in writing by S&P and Moody's to the extent that either is rating Bonds Outstanding under the General Ordinance at the time.

"Philadelphia Home Rule Charter" means the Philadelphia Home Rule Charter, as amended or superseded by any new home rule charter, adopted pursuant to authorization of the First Class City Home Rule Act approved April 21, 1949, P. L. 665 §1, *et seq*. (53 P. S. § 13101, *et seq*.).

"Pledged Amounts" shall have the meaning set forth in Section 4.02 of the General Ordinance.

"Prior Bonds" means the bonds issued under the General Airport Revenue Bond Ordinance of 1978 designated as Airport Revenue Bonds, Series 1978, 1984, 1985 and 1988.

"Project" shall have the meaning assigned to it in the Act, as the same may be amended from time to time.

"Project Revenues" means all of the revenues, rents, rates, tolls or other charges imposed upon all lessees, occupants and users of the Airport System and all moneys received by or on behalf of the City from all sources during any Fiscal Year (except as hereinafter excluded) from or in connection with the ownership, operation, improvements and enlargements of the Airport System, or any part thereof and the use thereof, including, without limitation, revenues pledged or appropriated for the benefit of the Airport System, all rentals, rates, charges, landing fees, use charges, concession revenues, income derived from the City's sale of services, fuel, oil, and other supplies or commodities, and all other charges received by the City or accrued by it from the Airport System, and any investment income realized from the investment of the foregoing, except as provided below, and all accounts, contract rights and general intangibles representing the Project Revenues all consistently determined in accordance with the accrual basis of accounting adjusted to meet the particular requirements of the Airline Agreements (if any of the Airline Agreements are in effect) and the General Ordinance.

Project Revenues as defined in the preceding paragraph shall not include (a) (i) any and all Passenger Facility Charges, or any taxes which the City may from time to time impose upon users of the Airport System, and (ii) Designated PFC Revenues for Debt Service, (b) any governmental grants and contributions in aid of capital projects, (c) such rentals as may be received pursuant to Special Facility Agreements for Special Purpose Facilities, (d) unless pledged pursuant to a Supplemental Ordinance pursuant to Section 4.02 of the General Ordinance, Customer Facility Charges, (e) proceeds of the sale of Bonds and any income realized from the investment of proceeds of the sale of Bonds maintained in the Aviation Capital Fund and income realized from investments of amounts maintained in the Renewal Fund and Sinking Fund Reserve Account, (f) except as required by applicable laws, rules or regulations, net proceeds from the sale of Airport assets, including the sale or transfer of all or substantially all of the assets of the Airport System under Section 9.01 of the General Ordinance unless the Division of Aviation determines to include any such net proceeds as Project Revenues and such determination is evidenced by written notification by the City to the Fiscal Agent, (g) proceeds of insurance or eminent domain (other than proceeds that provide for lost revenue due to business interruption or business loss), and (h) net amounts payable to the City under a Qualified Swap (other than termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap).[5]

"Qualified Escrow Securities" means funds which are represented by (a) demand deposits, interest-bearing time accounts, savings deposits or certificates of deposit, but only to the extent such deposits or accounts are fully insured by the Federal Deposit Insurance Corporation or any successor

[5] Upon the consent of Holders of one hundred percent (100%) of the Outstanding Bonds, the second paragraph of the definition of "Project Revenues" will be amended to read as follows:

> Project Revenues as defined in the preceding paragraph shall not include (a) (i) any and all Passenger Facility Charges, or any taxes which the City may from time to time impose upon users of the Airport System, and (ii) Designated PFC Revenues for Debt Service, (b) any governmental grants and contributions in aid of capital projects, (c) such rentals as may be received pursuant to Special Facility Agreements for Special Purpose Facilities, (d) unless pledged pursuant to a Supplemental Ordinance pursuant to Section 4.02 of the General Ordinance, Customer Facility Charges, (e) Released Revenues, (f) proceeds of the sale of Bonds and any income realized from the investment of proceeds of the sale of Bonds maintained in the Aviation Capital Fund and income realized from investments of amounts maintained in the Renewal Fund and Sinking Fund Reserve Account, (g) except as required by applicable laws, rules or regulations, net proceeds from the sale of Airport assets, including the sale or transfer of all or substantially all of the assets of the Airport System under Section 9.01 of the General Ordinance unless the Division of Aviation determines to include any such net proceeds as Project Revenues and such determination is evidenced by written notification by the City to the Fiscal Agent, (h) proceeds of insurance or eminent domain (other than proceeds that provide for lost revenue due to business interruption or business loss), and (i) net amounts payable to the City under a Qualified Swap (other than termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap).

United States governmental agency, or to the extent not insured, fully secured and collateralized by Government Obligations having a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such deposits or accounts, (b) if at the time permitted under the Act, noncallable obligations of the Commonwealth of Pennsylvania or any political subdivision thereof or any agency or instrumentality of the Commonwealth of Pennsylvania or any political subdivision thereof for which cash, Government Obligations or a combination thereof have been irrevocably pledged to or deposited in a segregated escrow account for the payment when due of principal or redemption price of and interest on such obligations, and any such cash or Government Obligations pledged and deposited are payable as to principal or interest in such amounts and on such dates as may be necessary without reinvestment to provide for the payment when due of the principal or redemption price of and interest on such obligations, and such obligations are rated by Moody's and S&P (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is then rating Bonds Outstanding under the General Ordinance) in the highest rating category (without regard to gradations) assigned by each such rating service to obligations of the same type, or (c) noncallable Government Obligations. In each case such funds (i) are subject to withdrawal, maturing or payable at the option of the holder, at or prior to the dates needed for disbursement, provided such deposits or accounts, whether deposited by the City or by such depository, are insured or secured as public deposits with securities having at all times a market value exclusive of accrued interest equal to the principal amount thereof, (ii) are irrevocably pledged for the payment of such obligations and (iii) are sufficient, together with the interest to disbursement date payable with respect thereto, if also pledged, to meet such obligations in full.

"Qualified Rebate Fund Securities" means either:

(a) Government Obligations; or

(b) rights to receive the principal of or the interest on Government Obligations through (i) direct ownership, as evidenced by physical possession of such Government Obligations or unmatured interest coupons or by registration as to ownership on the books of the issuer or its duly authorized paying agent or transfer agent, or (ii) purchase of certificates or other instruments evidencing an undivided ownership interest in payments of the principal of or interest on Government Obligations held under book-entry with the New York Federal Reserve Bank; or

(c) Pre-refunded Municipal Obligations defined as follows: Any bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state which are not callable at the option of the obligor prior to maturity or as to which irrevocable instructions have been given by the obligor to call on the date specified in the notice; and which are rated at the time purchased, based on the escrow, in the highest rating category of S&P and Moody's.

"Qualified Swap" or "Swap Agreement" means, with respect to a Series of Bonds, any financial arrangement that (i) is entered into by the City with an entity that is a Qualified Swap Provider at the time the arrangement is entered into; (ii) provides that (a) the City shall pay to such entity an amount based on the interest accruing at a fixed rate on an amount equal to the principal amount of all or any portion of the Outstanding Bonds of such Series, and that such entity shall pay to the City an amount based on the interest accruing on a principal amount initially equal to the same principal amount of such Bonds, at either a variable rate of interest or a fixed rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by the Bonds) or that one shall pay to the other any net amount due under such arrangement, (b) the City shall pay to such entity an amount based on the interest accruing on the principal amount of all or any portion of the Outstanding Bonds of such Series at a variable rate of interest as set forth in the arrangement and that such entity shall pay to the City an amount based on interest accruing on a principal amount equal to the same principal amount of such Bonds at an agreed fixed rate or that one shall pay to the other any net amount due under such arrangement or, (c) the City shall be paid by a Qualified Swap Provider an amount, based on a notional amount equal to the principal amount of all or any portion of the Outstanding Variable Rate Bonds of such Series, if the interest rate on such Series of Variable Rate Bonds exceeds a previously agreed upon rate, and/or the City shall pay to the Qualified Swap Provider an amount, based on a notional amount equal to the principal amount of all or any portion of the Outstanding Variable Rate Bonds of such Series, if the interest rate on such Series of Variable Rate Bonds is less than a previously agreed upon rate; (iii) has been approved of in writing by the Signatory Airlines; and (iv) which has been designated in writing to the Fiscal Agent by the City as a Qualified Swap with respect to the Bonds.

"Qualified Swap Provider" means, with respect to a Series of Bonds, an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose payment obligations under a Qualified Swap are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, are rated (at the time the subject Qualified Swap is entered into) at the higher of (i) A by Moody's and A by S&P, or the equivalent thereof by any successor thereto, or (ii) the then current rating on Bonds outstanding under the General Ordinance, without taking into account Bonds the rating on which is based upon a Credit Facility for such Bonds, provided if all Bonds Outstanding under the General Ordinance are rated based upon one or more Credit Facilities, then the senior unsecured long term obligations or claims paying ability of the provider shall be at least equal to A by Moody's and S&P.

"Rate Covenant" means the rate covenant applicable pursuant to Section 5.01 of the General Ordinance.

"Rating Agency" means any rating service which has issued a credit rating on Bonds which is in effect at the time in question or, upon discontinuance of any of such rating services, such other nationally recognized rating service or services if any such rating service has issued a credit rating on the Bonds at the request of the City and such credit rating is in effect at the time in question.

"Rebate Bond Year," for purposes of Section 4.14 of the General Ordinance and in order to facilitate compliance with the arbitrage rebate requirements of the Code, shall mean the period or periods specified in a Supplemental Ordinance or Determination for a Series of Bonds.

"Rebate Fund" means the Rebate Fund established in Section 4.04 of the General Ordinance.

"Record Date" means (i) with respect to any Variable Rate Bond, the Business Day immediately preceding an interest payment date or a redemption date or the maturity date, or such other date as set forth in the related Supplemental Ordinance, and (ii) with respect to Bonds bearing interest in a fixed rate mode or Bonds bearing interest at a prescribed fixed rate, the fifteenth (15th) day (regardless of whether it is a Business Day) of the calendar month next preceding an interest payment date, a redemption date or maturity date, or such other date as set forth in the related Supplemental Ordinance.

"Remarketing Agent" means a Remarketing Agent appointed in the manner provided in the applicable Supplemental Ordinance or Determination authorizing the issuance of Variable Rate Bonds.

"Remarketing Agreement" means an agreement providing for the remarketing of tendered Variable Rate Bonds by a Remarketing Agent, as more fully set forth and defined in the Supplemental Ordinance authorizing any Series of Variable Rate Bonds.

"Renewal Fund" means the Renewal Fund established in Section 4.04 of the General Ordinance.

"Renewal Fund Requirement" means $2,500,000 or such other amount as determined by the Consultant from time to time to be appropriate taking into account the size and operations of the Airport System.

"Required Rebate Fund Balance" shall have the meaning set forth in Section 4.14 of the General Ordinance.

"Second Supplemental Ordinance" means the Second Supplemental Ordinance to the General Ordinance.

"Series" when applied to Bonds means, collectively, all of the Bonds of a given issue authorized by Supplemental Ordinance, as provided in the General Ordinance, and may also mean, if appropriate, a subseries of any Series if, for any reason, the City should determine to divide any Series into one or more subseries of Bonds, or multiple series of Bonds, as the case may be.

"S&P" means Standard & Poor's Ratings Group, a division of McGraw Hill and any successor thereto.

"Signatory Airlines" means the airlines that are signatories to the Use and Lease Agreements.

"Sinking Fund" means the Sinking Fund established in Section 4.04 of the General Ordinance.

"Sinking Fund Depositary" means the bank named as such in Section 7.01 of the General Ordinance.

"Sinking Fund Installment" means an amount so designated which is established pursuant to Section 3.01 of the General Ordinance.

"Sinking Fund Reserve Account" means the Sinking Fund Reserve Account established in Section 4.04 of the General Ordinance.

"Sinking Fund Reserve Requirement" means (i) with respect to all Bonds (whether interest thereon is includable in, or excludable from, gross income for Federal income tax purposes) which the City determines will be secured by the Parity Sinking Fund Reserve Account, an amount equal to the lesser of (A) the greatest amount of Debt Service Requirements on Bonds payable in any one Fiscal Year, determined as of any particular date, or (B) the maximum amount permitted by the Code to be maintained without yield restriction for bonds, the interest on which is not includable in gross income for federal income tax purposes, and (ii) with respect to all Bonds which the City determines to secure with a Non-Parity Sinking Fund Reserve Account (whether interest thereon is includable in, or excludable from, gross income for Federal income tax purposes), the amount, if any, required to be deposited or maintained in the subaccount of the Sinking Fund Reserve Account as specified in a Supplemental Ordinance. For purposes of determining the Sinking Fund Reserve Requirement, Debt Service Requirements will be computed without regard to any Qualified Swap, Credit Facility or Standby Agreement, and the Debt Service Requirements attributable to any (i) Balloon Bonds, or Variable Rate Bonds shall be calculated in the manner set forth in Section 5.01(b) of the General Ordinance, or based upon the assumed fixed rate of interest as set forth in the Supplemental Ordinance or Determination for such Bonds, and (ii) Option Bonds shall be calculated in the manner set forth in the last paragraph under the definition of Debt Service Requirements.[6]

"Special Facility Agreement" means an agreement entered into by the City and one or more other parties, relating to the design, construction, and/or financing of any facility, improvement, structure, equipment, or assets acquired or constructed on any land or in or on any structure or buildings that is or are part of the Airport System, all or a portion of the payments to the City under which (a) are intended to be excluded from Amounts Available for Debt Service, and (b) may be pledged to the payment of Special Facility Revenue Bonds.

"Special Facility Revenue Bonds" means any City revenue bonds or notes authorized and issued for the purpose of acquiring, constructing, or improving a Special Purpose Facility leased to, or contracted for operation by, any person or persons, under a specific lease or contract requiring the user or users thereof to provide for the payment of rentals or sums adequate to pay all principal, interest, redemption price, reserve requirements, if any, as required in the legislation authorizing the Special Facility Revenue Bonds (the "debt service charges") on the Special Facility Revenue Bonds.

"Special Purpose Facility" means any facility acquired or constructed for the benefit or use of any person or persons and the costs of construction and acquisition of which are paid for (a) by the obligor under a Special Facility Agreement, (b) from the proceeds of Special Facility Revenue Bonds, or (c) both.

"Standby Agreement" with respect to a Series of Bonds, means an irrevocable letter of credit and related reimbursement agreement, line of credit, standby bond purchase agreement or similar agreement providing for the purchase of all or a portion of the Bonds of such Series, as amended, supplemented or extended from time to time.

"Standby Purchaser," with respect to a Series of Bonds, means the provider of the Standby Agreement for such Series of Bonds.

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[6] Upon the consent of Holders of one hundred percent (100%) of the Outstanding Bonds, the definition of "Sinking Fund Revenue Requirement" will be amended to read as follows:

> "Sinking Fund Reserve Requirement" means (i) with respect to all Bonds (whether interest thereon is includable in, or excludable from, gross income for Federal income tax purposes) which the City determines will be secured by the Parity Sinking Fund Reserve Account, an amount equal to the least of: (a) 10% of the outstanding principal amount of the Bonds, or if any series of Bonds are issued with original issue discount, 10% of the proceeds of such Bonds, (b) the maximum annual debt service on the Bonds, or (c) 125% of the average annual debt service on the Bonds, provided, however, in calculating the maximum annual debt service on the final maturity date for the Bonds Outstanding, an amount equal to the Sinking Fund Reserve Requirement may be subtracted from the debt service requirements amount for said year. For purposes of determining the Sinking Fund Reserve Requirement, Debt Service Requirements will be computed without regard to any Qualified Swap, Credit Facility or Standby Agreement, and the Debt Service Requirements attributable to any (i) Balloon Bonds, or Variable Rate Bonds shall be calculated in the manner set forth in Section 5.01(b) of the General Ordinance, or based upon the assumed fixed rate of interest as set forth in the Supplemental Ordinance or Determination for such Bonds, and (ii) Option Bonds shall be calculated in the manner set forth in the last paragraph under the definition of Debt Service Requirements.

"Subordinate Obligation" means any obligation referred to in, and complying with the provisions of, Section 5.04(h) of the General Ordinance.

"Subordinate Obligation Fund" means the Subordinate Obligation Fund established in Section 4.04 of the General Ordinance.

"Subordinate Obligation Ordinance" means the ordinance, and any supplements or amendments thereto authorizing the issuance of a series of Subordinate Obligations.

"Substitute Credit Facility" means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that replaces a Credit Facility and is provided by a commercial bank, insurance company or other financial institution with a then current long term credit rating (or whose obligations thereunder are guaranteed by a financial institution with a long term rating) from Moody's and S&P (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is, at the time in question, then rating Bonds Outstanding under the General Ordinance) not lower than the credit rating of any Series of Bonds which has no Credit Facility; provided that in no event shall such substitution take place unless Moody's and S&P acknowledge in writing that such substitution, in and of itself, will not result in a lowering, suspension or withdrawal of the rating on the Bonds secured by such Credit Facility.

"Supplemental Ordinance" means an ordinance supplemental to the General Ordinance enacted pursuant to the Act and the General Ordinance by the Council of the City.

"Tender Agent," with respect to a Series of Bonds, means any commercial bank or trust company organized under the laws of any state of the United States or any national banking association designated as a tender agent for such Series of Bonds, and its successor or successors hereafter appointed in the manner provided in the applicable Supplemental Ordinance or Determination.

"Uncertificated Bond" means any Bond which is fully registered as to principal and interest and which is not represented by an instrument.

"Use and Lease Agreements" mean the Airline - Airport Use and Lease Agreements (the "Airline Agreements") currently in effect, if any and, as amended from time to time, between the City and the Signatory Airlines providing for the construction of capital improvements to the Airport System, the financing of such improvements, the use and occupancy of portions of the Airport System by the Signatory Airlines and the rates, rents and charges to be paid by the Signatory Airlines for such use and occupancy as therein provided.

"Variable Rate Bond" means any Bond, the rate of interest on which is subject to change prior to maturity and cannot be determined in advance of such change.

Upon the consent of Holders of one hundred percent (100%) of the Outstanding Bonds, the definition of "Released Revenues" will be included to read as follows:

> "Released Revenues" means revenues in respect of which the following have been filed as part of a Supplemental Ordinance: (a) documentation of the City describing a specific identifiable portion of revenues and approving that such revenues be excluded from the term Project Revenues; (b) either (i) a certificate prepared by the City showing that revenues for each of the two most recent completed Fiscal Years, after the specific identifiable portion of revenues

covered by the City's documentation described in (a) above are excluded, were at least sufficient to satisfy the provisions of Section 5.01 of the General Ordinance; or (ii) a certificate prepared by a Consultant showing that the estimated revenues (excluding the specific identifiable portion of revenues covered in (a) above) for each of the first three complete Fiscal Years immediately following the Fiscal Year in which the documentation described in (a) above is provided by the City, will not be less than the amounts sufficient to satisfy the provisions of Section 5.01 of the General Ordinance; (c) an opinion of Bond Counsel to the effect that the exclusion of such specific identifiable portion of revenues from the definition of Project Revenues and from the pledge and lien of the Amended and Restated General Airport Revenue Bond Ordinance will not, by itself, cause the interest on any Outstanding Bonds to be included in gross income for purposes of federal income tax; and (d) written confirmation from each Rating Agency that has been requested by the City to maintain a rating on the Bonds and are then maintaining a rating on any of the Bonds to the effect that the exclusion of such specific identifiable portion of revenues from the definition of Project Revenues will not cause a withdrawal or reduction in any unenhanced rating then assigned to the Bonds.

Additionally, the City shall give written notice to each Rating Agency that has been requested by the City to maintain a rating on the Bonds and that is then maintaining a rating on any of the Bonds at least 15 days prior to any specific identifiable portion of revenues being excluded from the definition of Project Revenues as provided in this definition of "Released Revenues."

Upon filing of such documents, the specific identifiable portion of revenues described in the Supplemental Ordinance shall no longer be included in the definition of Project Revenues and shall be excluded from the pledge and lien of the Amended and Restated General Airport Revenue Bond Ordinance, unless otherwise included in the definition of Project Revenues in a future Supplemental Ordinance.

SUMMARY OF OPERATIVE PROVISIONS OF THE GENERAL ORDINANCE

The following is a summary of certain operative provisions of the General Ordinance. Reference should be made to the General Ordinance for a full and complete statement of its provisions and the meaning of any capitalized terms used herein but not otherwise defined.

Authorization, Scope and Purpose; Effective Date

The General Ordinance was enacted pursuant to the provisions of The First Class City Revenue Bond Act for the purpose of amending and restating in full, the General Airport Revenue Bond Ordinance of 1978, approved on March 16, 1978, as supplemented and amended. The General Ordinance became effective immediately and without any further action by City Council upon the consent of the Holders of at least 67 percent of the Outstanding Bonds (the "Effective Date"). On the Effective Date, the General Airport Revenue Bond Ordinance of 1978 and all supplements thereto were no longer in force or with any effect; provided that supplements to the General Airport Revenue Bond Ordinance of 1978 relating to Existing Bonds were deemed to be supplements to the General Ordinance on and after the Effective Date, to the extent such supplements were not inconsistent with the General Ordinance.

Concerning the Bonds

Form and Terms of Bonds. The aggregate principal amount of Bonds which may be issued or assumed, authenticated and delivered under the General Ordinance is unlimited, but prior to the issuance or assumption of such Series of Bonds, the City shall enact a Supplemental Ordinance authorizing such Series and the maximum aggregate principal amount of such Series and comply with all conditions in Section 5.04 of the General Ordinance (described under "Conditions and Provisions Relating to Issuing Bonds" hereinafter) and all conditions in the Act pertaining to the issuance or assumption of Airport System revenue bonds.

A Series of Bonds may be secured by a Credit Facility or Standby Agreement meeting the requirements of the General Ordinance and the applicable Supplemental Ordinance. In connection with the issuance of its Bonds or at any time thereafter so long as a Series of Bonds remains Outstanding, the City also may enter into Qualified Swaps or Exchange Agreements if the Bond Committee determines that any such Qualified Swap or Exchange Agreement will assist the City in more effectively managing its interest costs. The City's payment obligation under any Qualified Swap (other than termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap) shall be made from the Sinking Fund and its payment obligation under any such Exchange Agreement shall be made in accordance with Section 4.06(e) of the General Ordinance. Unless otherwise acknowledged in writing by S&P, that execution and delivery of such Qualified Swap Agreement or Exchange Agreement will not, in and of itself, result in a downgrade, suspension or withdrawal of the credit ratings on any Bonds Outstanding under the General Ordinance, the City will not enter into any Qualified Swap or Exchange Agreement.

Notwithstanding anything to the contrary in the General Ordinance, any Qualified Swap or Exchange Agreement entered into after June 15, 2005, may only be executed if authorized by Resolution of the City Council.

Issuance of Bonds

Purpose of Bonds; Combination of Projects for Financing Purposes. The Bonds issued or assumed under the General Ordinance shall be issued or assumed for the purpose (i) of paying the costs of Projects relating to the Airport System of the City, (ii) of reimbursing any fund of the City from which such costs shall have been paid or advanced together with interest thereon, (iii) of funding any of such costs for which the City shall have outstanding bond anticipation notes or other obligations, (iv) of refunding any Bonds or bonds of the City issued for the foregoing purposes, or (v) of refunding any General Obligation Bonds or NSS General Obligation Bonds.

Pledge of Revenues; Grant of Security Interest; Limitation on Recourse

The City pursuant to the General Ordinance pledges for the security and payment of all Bonds and thereby grants to Bondholders a lien on and security interest in: (i) all Project Revenues, (ii) amounts payable to the City under a Qualified Swap, (iii) except as provided in Section 4.09 of the General Ordinance (with respect to a non-parity reserve fund), all amounts on deposit in or credited to the Aviation Funds and (iv) proceeds of the foregoing ((i)-(iv) collectively are referred to herein as, the "Pledged Amounts"). The City may pledge Passenger Facility Charges pursuant to a Supplemental Ordinance and such Passenger Facility Charges, and proceeds thereof, shall constitute Pledged Amounts; provided, however, that if as a result of applicable law, rules and regulations, such Passenger Facility Charges may only be pledged to secure one or more specified Series of Bonds, such pledged Passenger Facility Charges, and proceeds thereof, shall constitute Pledged Amounts solely with respect to such Series of Bonds; provided, further, that Passenger Facility Charges shall not constitute Pledged Amounts or Amounts Available for Debt Service under the General Ordinance unless the City first receives written confirmation from all Rating Agencies then rating any Bonds Outstanding under the General Ordinance, that the pledge of Passenger Facility Charges in and of itself will not result in a downgrade, suspension or withdrawal of rating on any Bonds Outstanding under the General Ordinance, without taking into account Bonds the rating on which is based upon one or more Credit Facilities for such Bonds, provided that if all Bonds Outstanding under the General Ordinance are rated based upon a Credit Facility, then Passenger Facility Charges may be pledged only upon receipt by the City of written consent by the providers of all such Credit Facilities. To the extent that the Fiscal Agent maintains such Pledged Amounts, the Fiscal Agent shall hold and apply the security interest granted by the General Ordinance in the Pledged Amounts, in trust, for the equal and ratable benefit and security of all present and future Holders of Bonds issued pursuant to the provisions of the General Ordinance and each Supplemental Ordinance, without preference, priority or distinction of any one Bond over any other Bond; provided however, that the pledge of the General Ordinance may also be for the benefit of the provider of a Credit Facility, Standby Agreement or Qualified Swap (other than with respect to termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap), or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any Series of Bonds, on an equal and ratable basis with Bonds, to the extent provided by any Supplemental Ordinance or Determination.

Amounts constituting revenues, rents, rates, tolls or other charges generated or allocable to the Outside Terminal Area may be pledged under the General Ordinance as Project Revenues, only if there shall be delivered to the Fiscal Agent: (i) a written statement supported by appropriate schedules and summaries, that on the basis of historical, and estimated future annual financial operations of the Airport System, from which Amounts Available for Debt Service are to be derived, the Airport System will, in the opinion of the Consultant, yield Amounts Available for Debt Service for each of the five Fiscal Years (or three Fiscal Years in the event that the Consultant is professionally unable to provide an opinion for a period in excess of three Fiscal Years) ended immediately following the pledge of amounts described above, sufficient to comply with the Rate Covenant, and (ii) for so long as any of the Airline Agreements are in effect, with the prior written consent of the Signatory Airlines to amend the Airline Agreements so that they reflect the foregoing modifications. For purposes of the statement in clause (i) above, the definition of "Operating Expenses" shall be deemed to include projected operating expenses of the Outside Terminal Area and Debt Service Requirements shall be deemed to include the debt service on any Bonds assumed or to be assumed under the General Ordinance, and any Qualified Swap, Credit Facility or Standby Agreement related thereto which is secured by a parity pledge of Project Revenues.

Neither the Bonds nor the City's reimbursement or other contractual obligations under any Credit Facility, Standby Agreement, Qualified Swap or Exchange Agreement shall constitute a general indebtedness or a pledge of the full faith and credit of the City within the meaning of any Constitutional or statutory provision or limitation of indebtedness. No Bondholder or beneficiary of any of the foregoing agreements shall ever have the right, directly or indirectly, to require or compel the exercise of the ad valorem taxing power of the City for the payment of the principal and redemption price of or interest on the Bonds or the making of any payments under the General Ordinance. The Bonds and the obligations evidenced thereby and by the foregoing agreements, shall not constitute a lien on any property of or in the City, except as set forth in this section.

Designated PFC Revenues for Debt Service

The City may for any period elect to designate any available Passenger Facility Charges as "Designated PFC Revenues for Debt Service" by filing with the Fiscal Agent a certificate signed by the Director of Finance that includes (a) a representation by the City that such PFCs, when received by the City, may be validly designated as and included in "Designated PFC Revenues for Debt Service" under the General Ordinance and are legally available to pay the Debt Service Requirements on all or a portion of the Bonds, (b) the amount of PFCs that are being designated as and included in "Designated PFC Revenues for Debt Service," (c) the appropriate account(s) of the Sinking Fund such Designated PFC Revenues for Debt Service are to be deposited to, and (d) the time period during which such Designated PFC Revenues for Debt Service will be designated as and included in "Designated PFC Revenues for Debt Service." After the filing of such certificate with the Fiscal Agent, the City shall cause the Designated PFC Revenues for Debt Service designated therein to be deposited to the account(s) of the Sinking Fund and used to pay the Debt Service Requirements on the applicable Series of Bonds. Notwithstanding any other provision hereof, if such Designated PFC Revenues for Debt Service are subject to any prior pledge or lien or irrevocable commitment, the application thereof to the payment of Debt Service Requirements on the Bonds shall be subordinate to the terms of such prior pledge or lien or irrevocable commitment and the certificate of the Director of Finance designating the Designated PFC Revenues for Debt Service shall indicate the amount of the obligation payable in such Fiscal Year from the Designated PFC Revenues for Debt Service pursuant to such prior pledge or lien or irrevocable commitment.

Bonds to be Parity Bonds

All Bonds issued under the General Ordinance shall be parity Bonds equally and ratably secured by the pledge of and grant of the security interest described in the preceding section, except as provided for in the preceding section and the section below entitled "Sinking Fund Reserve Account" without preference, priority or distinction as to lien or otherwise, except as otherwise hereinafter provided, of any one Bond over any other Bond or as between principal and interest.

Subordinate Obligations issued pursuant to a Subordinate Obligation Ordinance shall be secured (i) by a pledge of and grant of the security interest in Project Revenues to the extent required to be deposited in the Subordinate Obligations Fund and (ii) the amounts on deposit in or credited to the Subordinate Obligations Fund subject and subordinate to the payment of the amounts described in clauses (a) through (d) of the section below entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts" from Amounts Available for Debt Service and subject to the elimination of any deficiency in any fund or account established under the General Ordinance or under any Supplemental Ordinance.

Pursuant to the General Ordinance, the City reserves the right, and nothing in the General Ordinance shall be construed to impair such right, to finance improvements to the Airport System by the issuance of its General Obligation Bonds, NSS General Obligation Bonds, Special Facility Revenue Bonds or Subordinate Obligations under ordinances other than Supplemental Ordinances; provided that in the case of any Airport System revenue bonds or notes for the payment of which Project Revenues shall be used or pledged, payment of such Airport System revenue bonds shall be subject and subordinate to the payment from such Project Revenues of the payments described in the section below entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts" and subject to the elimination of any deficiency in any fund or account established under the General Ordinance or under any Supplemental Ordinance.

Establishment of Funds and Accounts

The following funds and accounts are established pursuant to the General Ordinance and shall be held by the City: (a) Aviation Operating Fund; (b) Aviation Capital Fund; and (c) Rebate Fund.

The following funds and accounts are established pursuant to the General Ordinance or, have heretofore been established and shall be maintained by the Fiscal Agent: (a) Sinking Fund and within such Sinking Fund, a Sinking Fund Reserve Account, a Debt Service Account and a Charges Account; (b) Subordinate Obligation Fund; and (c) Renewal Fund.

On the Effective Date of the General Ordinance, the City transferred or caused to be transferred or credited on its books and records all amounts maintained in or credited to the funds and accounts created under the General Airport Revenue Bond Ordinance of 1978 as set forth in the General Ordinance.

Nothing in the General Ordinance shall be construed to prevent the City from establishing, in connection with the issuance of one or more Series of Bonds, additional funds or accounts to be held for the benefit of one or more Series of Bonds issued under the General Ordinance, as set forth in Supplemental Ordinances; provided that, no such additional funds or accounts shall be established unless, in the opinion of Bond Counsel, establishment of additional funds or accounts would not (i) adversely affect the exclusion of interest on Bonds, if any, from gross income for federal income tax purposes, or (ii) materially adversely affect the security or interests of Bondholders. If required by law, rules or regulations, the City shall establish and maintain a separate account within the Sinking Fund for pledged Passenger Facility Charges.

Segregation of Aviation Funds; Deposit of Project Revenues into Aviation Operating Fund.

(a) The Aviation Funds shall be held separate and apart from all other funds and accounts of the City and the Fiscal Agent and the funds and accounts therein shall not be commingled with, loaned or transferred among themselves or to any other City funds or accounts except as expressly permitted in the General Ordinance.

(b) The City shall, upon receipt of any Project Revenues, deposit such Project Revenues into the Aviation Operating Fund. Any Passenger Facility Charges that constitute Amounts Available for Debt Service under the General Ordinance, shall be deposited directly into the appropriate account or subaccount of the Sinking Fund to the extent required to pay debt service on Bonds. The City and Fiscal Agent also shall cause to be deposited into the Aviation Operating Fund, Sinking Fund Reserve Account, Sinking Fund, and Renewal Fund proceeds of Bonds as designated by Supplemental Ordinance or Determination and any other funds directed to be deposited into the Aviation Operating Fund, Sinking Fund Reserve Account, Sinking Fund, or Renewal Fund by the City. The Fiscal Agent shall, at the written direction of the City, disburse from the Aviation Operating Fund the amounts and at the times specified below in the section entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts."

(c) (i) If at any time sufficient moneys are not available in the Aviation Operating Fund to pay Operating Expenses and to make the transfers required by the section below entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts", or if a deficiency exists in the Aviation Capital Fund, then, subject to the requirements of (ii) and (iii) below, amounts on deposit in the Aviation Capital Fund and Renewal Fund may be loaned, at the written direction of the City, to the Aviation Operating Fund for the payment of such Operating Expenses and to make transfers required by the section below entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts", to the extent of the deficiency, and amounts on deposit in the Aviation Operating Fund and Renewal Fund may be loaned, at the written direction of the City, to the Aviation Capital Fund, to the extent of the deficiency. Notwithstanding anything to the contrary in this subparagraph (c), during any Fiscal Year, loans from the Aviation Capital Fund and loans from the Aviation Operating Fund pursuant to this section at any time shall not exceed in the aggregate 5% of the Division of Aviation's budgeted Operating Expenses net of Debt Service Requirements for such Fiscal Year.

(ii) Loans from the Aviation Capital Fund to the Aviation Operating Fund shall be made only
to the extent of unencumbered capital amounts in the Aviation Capital Fund, and may be spent only for purposes authorized under applicable federal, state and local law. Any amounts borrowed from the Aviation Capital Fund shall be repaid on the earlier to occur of: (1) the date the funds are required by the Division of Aviation for purposes of the Aviation Capital Fund, (2) the date proceeds of Bonds, bonds or notes become available to the City for reimbursement of the expenditures made with the money borrowed, or (3) the last day of the twelve-month period beginning on the date the loan was made, in which case repayment may be made from the Renewal Fund;

(iii) Loans from the Aviation Operating Fund to the Aviation Capital Fund shall be made only
to the extent of any surplus in the Aviation Operating Fund; provided that a Consultant delivers a written certification to the Fiscal Agent that the Division of Aviation will have, after making the loan, sufficient funds in the Aviation Operating Fund to pay all Operating Expenses when payable and the Debt Service Requirements up to and including the later of: the last day of the Fiscal Year in which the loan takes place or, the next interest payment date. Amounts loaned to the Aviation Capital Fund shall be used for the following purposes: (1) capital projects previously approved by the Signatory Airlines in accordance with the Airline Agreements, or (2) capital projects for which an appropriation has been made. Any amounts borrowed shall be repaid no later than the date the funds are required by the Division of Aviation for purposes of the Aviation Operating Fund.

Transfer from Aviation Operating Fund to Other Funds and Accounts. Amounts on deposit in the Aviation Operating Fund Operating Fund shall be applied by the City or the Fiscal Agent, as the case may be, in the following manner and in the following order of priority:

(a) to pay such sums constituting Net Operating Expenses in a timely manner;

(b) for deposit in the appropriate accounts of the Sinking Fund, the amount necessary to provide for the timely payment of Debt Service Requirements;

(c) for deposit in the Sinking Fund Reserve Account or the appropriate subaccount thereof, the amount, if any, required to eliminate any deficiencies therein; provided, however, in the event there are insufficient amounts available to replenish all of the accounts or subaccounts within the Sinking Fund Reserve Account, the amount to be deposited in each Sinking Fund Reserve Account or subaccount shall be determined by dividing the Sinking Fund Reserve Requirement on the Outstanding Bonds secured thereby by the sum of the Sinking Fund Reserve Requirements on all Bonds Outstanding under the General Ordinance and multiplying that result by the total amount available to be deposited under this clause (c);

(d) for deposit in the Renewal Fund, the amount, if any, required to eliminate any deficiency therein, and to pay amounts due and payable under Exchange Agreements;

(e) to pay termination amounts to a Qualified Swap Provider due as a result of the termination of a Qualified Swap and termination amounts payable to JP Morgan Chase Bank – New York with respect to Payments upon Early Termination on the Interest Rate Swap Transaction effective June 15, 2005;

(f) for deposit in the Subordinate Obligation Fund (i) the amount necessary to provide for the timely payment of the principal or redemption price of and interest on Subordinate Obligations, (ii) on or before the dates that other payments are due under any credit facility, liquidity facility or swap agreement constituting Subordinate Obligations, to deposit the amount necessary to make such payments, (iii) forward to the paying agent in respect of bond anticipation notes (payable by exchange for, or out of the proceeds of the sale of Subordinate Obligations) the amount necessary to provide for the timely payment of interest thereon (to the extent not capitalized), and (iv) deposit in the applicable subaccount of the sinking fund reserve account for a series of Subordinate Obligations the amounts, if any, required to eliminate any deficiency in such account;

(g) to pay to the City the amount necessary to provide for the timely payment of the principal or redemption price of and interest on General Obligation Bonds; [7]

(h) to pay any Interdepartmental Charges;

(i) to pay to the City the amount necessary to provide for the timely payment of the principal or redemption price of and interest of NSS (non-self-sustaining) General Obligation Bonds;[2] and

(j) Any amounts remaining in the Aviation Operating Fund following any transfer then required to be made pursuant to subparagraphs (a)-(i) above, may be used at the written direction of the City for any Airport System purposes. In the Airline Agreement, the City has provided its written direction to use such remaining amounts as provided in subparagraphs (k)-(m) below.

So long as any Bonds or bonds are outstanding, the deposit and application of Project Revenues for each Fiscal Year during the term of the Airline Agreement shall be governed by the General Ordinance. The City is expressly permitted in the General Ordinance to use amounts remaining in the Aviation Operating Fund following any transfers pursuant to subparagraphs (a)-(i) above for the Bond Redemption and Improvement Requirement, the O&M Requirement, the Airline Revenue Allocation, and City Revenue Allocation. Pursuant to Section 4.06 of the General Ordinance, any amounts remaining in the Aviation Operating Fund following any transfer then required to be made pursuant to subparagraphs (a)-(i) above may be used for any Airport System purposes at the written direction of the City. The City has directed that such amounts remaining will be applied or credited in the following manner:

(k) Bond Redemption and Improvement Account. The Bond Redemption and Improvement Account is available for use by City for the payment of deficiencies with respect to the Debt Service Requirements or deficiencies with respect to the Sinking Fund Reserve Requirement as provided under the General Ordinance. If no such deficiencies exist, City is not in default under the General Ordinance and a Majority-in Interest of the Eligible Signatory Airlines, determined pursuant to the Airfield Area MII Formula, mutually agree (whose agreement will not be unreasonably withheld), the Division of Aviation can use such amounts for repair, renewals, replacements or alterations to the Airport System; redemption of Bonds; costs of Capital Projects or equipment; purchase of Bonds; arbitrage rebate pursuant to Section 148(f) of the Code or for any lawful Airport System purposes. The Bond Redemption and Improvement Requirement shall mean an amount not to exceed the lesser of (i) the amount of Debt Service Reserve Surety Bonds fulfilling the City's Sinking Fund Reserve Requirements, or (ii) such dollar amount required to maintain a dollar balance in the Bond Redemption and Improvement Account equal to twenty five percent (25%) of the Debt Service Requirement. The Bond Redemption and Improvement Account may be funded with amounts remaining, if any, following any and all transfers required by subparagraphs (a)-(i) above.

(1) Notwithstanding the foregoing, for each and every Fiscal Year during the term of Airline Agreement, the interest earned on the balance of the Bond Redemption and Improvement

[7] No general obligation debt of the City described in paragraphs (g) and (i) above are currently outstanding.

Account shall first be used to reduce the Bond Redemption and Improvement Requirement for the following Fiscal Year and the remaining interest and any excess balance in the Bond Redemption and Improvement Account due to a reduction in the Debt Service Requirement, if any, shall be transferred to the Aviation Operating Fund and then allocated to the Airport Cost Centers in proportion to the Debt Service Requirement for each such Airport Cost Center as a Non-Airline Revenue.

(2) The net Bond Redemption and Improvement Requirement shall be allocated on the basis of Debt Service Requirements to the Airport Cost Centers.

(l) O&M Account. The O&M Account is available for use by City for the payment of Operating Expenses in City's sole discretion in the event the then current Airport Revenues allocated to Operating Expenses in the Annual Budget are deemed to be insufficient. If a Majority-in Interest of the Eligible Signatory Airlines, determined pursuant to the Airfield Area MII Formula, and City mutually agree (whose agreement will not be unreasonably withheld), any balance then can be used for repairs, renewals, replacements, alterations, the redemption of Bonds or bonds or for any Airport System purposes. Notwithstanding the foregoing, City has no reasonable expectation that funds in the O&M Account will be used to pay Debt Service since the account is being created to pay Operating Expenses. The O&M Account may be funded with amounts remaining, if any, following any and all transfers required by subparagraphs (a)-(j) above. Thereafter, the O&M Requirement shall mean an amount not to exceed one million dollars ($1,000,000) per Fiscal Year to be deposited in the O&M Account to maintain a balance equal to ten percent (10%) of Operating Expenses.

(1) Notwithstanding the foregoing, for each and every Fiscal Year during the term of the Agreement, the interest earned on the balance of the O&M Account shall first be used to reduce the O&M Requirement for the following Fiscal Year and the remaining interest and any excess balance in the O&M Account due to a reduction in Operating Expenses, if any, shall be transferred to the Aviation Operating Fund, then allocated to the Airport Cost Centers in proportion to the Operating Expenses for each such Airport Cost Center as a Non-Airline Revenue.

(2) The net O&M Requirement shall be allocated on the basis of Operating Expenses to the Airport Cost Centers.

(m) Airline Revenue Allocation. The Airline Revenue Allocation shall be calculated from any amounts remaining in the Aviation Operating Fund if any, following any and all transfers required by subparagraphs (a)-(k) above. During the term of the Airline Agreement, the Airline Revenue Allocation shall be equal to fifty percent (50%) of the prior Fiscal Year's total net revenue from the Outside Terminal Areas Cost Center reduced by an amount of up to seven million dollars ($7,000,000), to the extent net revenue from the Outside Terminal Areas Cost Center equals or exceeds seven million dollars ($7,000,000). The Airline Revenue Allocation, if any, shall first be credited to the Other Buildings and Areas Cost Center to determine the Airfield Area Requirement for such Fiscal Year and then, if the Airline Revenue Allocation exceeds the deficit of the Other Buildings and Areas Cost Center, the excess shall be allocated pro rata to the Airfield Area Cost Center and Terminal Area Cost Center based on airline revenue allocable to such cost center.

(n) Discretionary Account. Following any and all transfers required by subparagraphs (a)-(l) above, any amounts remaining in the Aviation Operating Fund, less the Airline Revenue Allocation shall be deposited in the Discretionary Account to be used at the written direction of the City for any Airport System purposes.

Sinking Fund. Except as set forth in Sections 4.02, 4.04 and 4.09 of the General Ordinance, the Sinking Fund shall be a consolidated fund for the equal and proportionate benefit of the Holders of all Bonds from time to time Outstanding, Credit Facilities, Standby Agreements, and Qualified Swap Agreements secured by a parity pledge of Project Revenues and payable pursuant to subparagraph (c) of the section above entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts", and each account therein may be invested and reinvested on a consolidated basis in accordance with Section 9 of the Act.

The Fiscal Agent, as directed by the City by Supplemental Ordinance, Determination or other written direction, shall pay out of the Debt Service Account of the Sinking Fund to the designated paying agent or agents (i) on or before each interest payment date for any of the Bonds the amount required for the interest payable on such date; and (ii) on or before each principal, redemption or prepayment date for any Bonds, the amount required for the principal, redemption or prepayment payable on such date, and (iii) on or before the respective due dates the amounts, if any, due under any Swap Agreements (other than termination amounts payable to a Qualified Swap Provider due as a result of termination of a Qualified Swap). Such amounts shall be applied by the designated paying agent or agents on the due dates thereof. The Fiscal Agent shall also pay out of the Debt Service Account of the Sinking Fund the accrued interest included in the purchase price of Bonds purchased for retirement and on or before the due dates any amounts owing by the City under any Credit Facility or Standby Agreement, payable from the Debt Service Account, on account of advances to pay principal of or interest or redemption premium on Bonds.

Amounts accumulated in the Debt Service Account with respect to any Sinking Fund Installment (together with amounts accumulated therein with respect to interest on the Bonds for which such Sinking Fund Installment was established) if so directed by the City, shall be applied by the Fiscal Agent, on or prior to the 60th day preceding the due date of such Sinking Fund Installment, to the purchase of Bonds of the Series, maturity and interest rate within each maturity for which such Sinking Fund Installment was established. All purchases of Bonds pursuant to this paragraph shall be made at prices not exceeding the applicable sinking fund redemption price of such Bonds plus accrued interest, and such purchases shall be made by the Fiscal Agent as directed by the City. As soon as practicable after the 42nd day preceding the due date of any such Sinking Fund Installment, the Fiscal Agent shall proceed to call for redemption, by giving notice as provided in Section 6.03 of the General Ordinance, on such due date Bonds of the Series, maturity and interest rate within each maturity for which such Sinking Fund Installment was established (except in the case of Bonds maturing on a Sinking Fund Installment date) in such amount as shall be necessary to complete the retirement of the unsatisfied balance of such Sinking Fund Installment after making allowance for any Bonds purchased pursuant to Section 4.10 of the General Ordinance which the City has directed the Fiscal Agent to apply as a credit against such Sinking Fund Installment as provided in Section 4.08 thereof. The Fiscal Agent shall pay out of the Sinking Fund to the appropriate paying agent or agents, on or before such redemption date (or maturity date) the amount required for the redemption of the Bonds so called for redemption (or for the payment of such Bonds then maturing) and such amount shall be applied by such paying agent or agents to such redemption (or payment). All expenses in connection with the purchase or redemption of Bonds shall be paid by the City from Amounts Available for Debt Service, or other amounts available therefor.

In the event of the refunding of any Bonds, the Fiscal Agent shall, if the City so directs in writing, withdraw from the Sinking Fund all, or any portion of, the amounts accumulated therein with respect to principal or interest on the Bonds being refunded and deposit such amounts with itself or another financial institution serving as escrow agent to be held for the payment of the principal or redemption price, if applicable, and interest on the Bonds being refunded; provided that such withdrawal shall not be made unless immediately thereafter the Bonds being refunded shall be deemed to have been paid pursuant to Section 11.01 of the General Ordinance. In the event of a refunding, the City may also direct the Fiscal

Agent to withdraw from the Sinking Fund all, or a portion of, the amounts accumulated therein with respect to principal and interest on the Bonds being refunded and deposit such amounts in any fund or account established under the General Ordinance.

If any Bond shall not be presented for payment when the principal thereof becomes due, either at maturity or otherwise or at the date fixed for redemption thereof, if moneys sufficient to pay such Bond shall have been deposited with the Fiscal Agent, it shall be the duty of the Fiscal Agent to hold such moneys, without liability to the City, any Bondholder or any other person for interest thereon, for the benefit of the owner of such Bond. Notwithstanding the foregoing, any moneys in the Sinking Fund for the payment of the interest, principal or redemption premium of Bonds unclaimed for two (2) years after the due date shall be repaid to the Aviation Operating Fund but such repayment shall not discharge the obligation, if any, for which such moneys were previously held in the Sinking Fund; provided, however, that such repayment shall not be made unless, at the time of such repayment, there shall exist no deficiency in any fund or account established under the General Ordinance or any Supplemental Ordinance.

The Fiscal Agent shall pay, solely out of the Charges Account to the appropriate payees any fees, expenses and other amounts due and payable from the Charges Account, under any Credit Facility or Standby Agreement, with respect to Bonds, to the extent such amounts are not paid from the Debt Service Account.

Credits Against Sinking Fund Installments. If at any time Bonds of any Series or maturity for which Sinking Fund Installments shall have been established are purchased or redeemed other than pursuant to the third paragraph of the section above entitled "Sinking Fund" or are deemed to have been paid pursuant to Section 11.01 of the General Ordinance and, with respect to such Bonds which have been deemed paid, irrevocable instructions have been given to the Fiscal Agent to redeem or purchase the same on or prior to the due date of the Sinking Fund Installment to be credited under this section, the City may from time to time and at any time by written notice to the Fiscal Agent specify the portion, if any, of such Bonds so purchased, redeemed or deemed to have been paid and not previously applied as a credit against any Sinking Fund Installment which are to be credited against future Sinking Fund Installments. Such notice shall specify the amounts of such Bonds to be applied as a credit against such Sinking Fund Installment or Sinking Fund Installments and the particular Sinking Fund Installment or Installments against which such Bonds are to be applied as a credit; provided, however that none of such Bonds may be applied as a credit against a Sinking Fund Installment to become due less than forty-two (42) days after such notice is delivered to the Fiscal Agent. All such Bonds to be applied as a credit shall be surrendered to the Fiscal Agent for cancellation on or prior to the due date of the Sinking Fund Installment against which they are being applied as a credit. The portion of any such Sinking Fund Installment remaining after the deduction of any such amounts credited toward the same (or the original amount of any such Sinking Fund Installment if no such amounts shall have been credited toward the same) shall constitute the unsatisfied balance of such Sinking Fund Installment for the purpose of calculation of Sinking Fund Installments due on a future date.

Sinking Fund Reserve Account. There is created under the General Ordinance a parity Sinking Fund Reserve Account within the Sinking Fund to be known as the "Parity Sinking Fund Reserve Account." Unless the applicable Supplemental Ordinance designates a Non-Parity Sinking Fund Reserve Requirement, the City shall deposit, or cause to be deposited in the Parity Sinking Fund Reserve Account from the proceeds of the sale of each Series of Bonds, or from other amounts available therefor, an amount which, when added to the existing balance in the Parity Sinking Fund Reserve Account, will be equal to the Parity Sinking Fund Reserve Requirement immediately after the issuance of such Series of Bonds. All amounts in the Parity Sinking Fund Reserve Account shall be available to pay the principal, redemption price or interest on any other Series of Bonds secured by the Parity Sinking Fund Reserve Account.

If a Supplemental Ordinance for a Series of Bonds designates a Non-Parity Sinking Reserve Requirement for such Series of Bonds, the Supplemental Ordinance pursuant to which such Bonds were issued shall either create a separate Non-Parity Sinking Fund Reserve Subaccount, or create or designate a previously created subaccount within the Sinking Fund Reserve Account. Notwithstanding anything to the contrary in Section 4.09 of the General Ordinance, the City shall not create a Non-Parity Sinking Fund Reserve Account or designate a Non-Parity Sinking Fund Reserve Requirement unless the City first obtains written confirmation from any one Rating Agency then rating the Bonds that such action, in and of itself, will not result in a downgrade, suspension or withdrawal of the credit rating on any Bonds Outstanding thereunder. The City shall, under direction of the Director of Finance, deposit in the specified Non-Parity Sinking Fund Reserve Subaccount created pursuant to any Supplemental Ordinance, the amount required to be deposited pursuant to the Supplemental Ordinance for such Series of Bonds. The money and investments in each Non-Parity Sinking Fund Reserve Subaccount shall be held and maintained in an amount equal at all times to the applicable Non-Parity Sinking Fund Reserve Requirement for such Series secured thereby, as provided in the Supplemental Ordinance authorizing such Series of Bonds. All amounts in each Non-Parity Sinking Fund Reserve Subaccount shall be available solely to secure the Bonds specified in the Supplemental Ordinance pursuant to which such subaccount was created.

If at any time and for any reason, the moneys in the Debt Service Account of the Sinking Fund shall be insufficient to pay as and when due, the principal of (and premium, if any) or interest on any Bond or Bonds or other obligations payable from the Debt Service Account then due (including any amounts payable out of the Sinking Fund under Swap Agreements), the Fiscal Agent is authorized and directed (i) with respect to Bonds secured by the Parity Sinking Fund Reserve Account, to withdraw an amount equal to the deficiency from the Parity Sinking Fund Reserve Account, and use such amount to pay debt service on the Bonds secured thereby, and (ii) with respect to Bonds secured by a Non-Parity Sinking Fund Reserve Subaccount, to withdraw an amount equal to the deficiency from such Non-Parity Sinking Fund Reserve Subaccount and use such amount to pay debt service on the Bonds secured thereby. If by reason of such withdrawal or for any other reason there shall be a deficiency in the Sinking Fund Reserve Account or any subaccount thereof, the City covenants to restore such deficiency promptly from Project Revenues, in no event later than the next interest payment date for Bonds Outstanding under the General Ordinance.

Any money in the Sinking Fund Reserve Account or any subaccount thereof in excess of the applicable Sinking Fund Reserve Requirement shall be transferred on an annual basis to the Debt Service Account of the Sinking Fund at the written direction of the City.

Notwithstanding the foregoing provisions, in lieu of the required deposits into the Sinking Fund Reserve Account or any subaccount thereof, the City may cause to be deposited into any account or subaccount of the Sinking Fund Reserve Account an unconditional and irrevocable surety bond or an insurance policy payable to the Fiscal Agent for the account of the Holders of the Series of Bonds in question or an irrevocable letter of credit in an amount equal to the difference between the Sinking Fund Reserve Requirement for the related Series of Bonds and the remaining sums, if any, then on deposit in the applicable account or subaccount of the Sinking Fund Reserve Account. The surety bond, insurance policy or letter of credit (each, a "Sinking Fund Reserve Facility") shall be payable (upon the giving of notice as required thereunder) on any payment date on which moneys will be required to be withdrawn from the applicable account or subaccount of the Sinking Fund Reserve Account and applied to the payment of debt service on the related Series of Bonds and such withdrawal cannot be met by amounts on deposit in the applicable account or subaccount of the Sinking Fund Reserve Account or provided from amounts held in any other Fund under the General Ordinance that are available to pay debt service on such Series of Bonds.

The insurer providing such surety bond or insurance policy shall be an insurer whose municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bond issues results in such issues being rated in not lower then the second highest rating category (without regard to gradations) by Moody's and S&P (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is, at the time in question, rating Bonds Outstanding under the General Ordinance). The letter of credit issuer shall be a bank or trust company which is rated not lower than the second highest rating category (without regard to gradations) by Moody's and S&P (however, the rating by Moody's and S&P, or either of them, shall only be required to the extent such Rating Agency is, at the time in question, rating Bonds Outstanding under the General Ordinance), and the letter of credit itself shall be rated in at least the second highest category of such Rating Agencies. If a disbursement is made pursuant to a Sinking Fund Reserve Facility provided pursuant to this subsection, the City shall be obligated either (i) to reinstate the maximum limits of such Sinking Fund Reserve Facility or (ii) to deposit into the applicable account or subaccount of the Sinking Fund Reserve Account, funds in the amount of the disbursement made under such Sinking Fund Reserve Facility, or a combination of such alternatives, as shall provide that the amount in the applicable account or subaccount of the Sinking Fund Reserve Account equals the Sinking Fund Reserve Requirement for the related Series of Bonds within a time period not longer than would be required to restore the applicable account or subaccount of the Sinking Fund Reserve Account by operation of this section and from the same source of funds as provided herein. Upon the occurrence of any reduction or suspension of any credit rating with respect to such Sinking Fund Reserve Facility (or the provider thereof) required by this section, the City shall replace the Sinking Fund Reserve Facility with a new one that meets the aforesaid rating requirements; provided however that with respect to any letter of credit that is a Sinking Fund Reserve Facility, the City may in lieu of replacing such Sinking Fund Reserve Facility, cause the Sinking Fund Reserve Facility to be drawn upon to the full extent possible and deposit such monies in the subaccount of the Sinking Fund Reserve Account in which the Sinking Fund Reserve Facility was held. In addition, 30 days prior to the expiration date of any Sinking Fund Reserve Facility, that is a letter of credit the City shall either extend the term of such Sinking Fund Reserve Facility by at least one year or deposit cash in the face amount of the Sinking Fund Reserve Facility in question in the appropriate account or subaccount of the Sinking Fund Reserve Account in replacement of such Sinking Fund Reserve Facility, and if the City fails to take either of such actions by such date, the Fiscal Agent shall within five Business Days thereafter draw down upon the Sinking Fund Reserve Facility that is a letter of credit to the full extent possible and deposit the proceeds of such draw in the appropriate subaccount of the Sinking Fund Reserve Account.[8]

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[8] Upon the consent of Holders of at least sixty-seven percent (67%) of the Outstanding Bonds, this paragraph will be amended as follows:

> The insurer providing such surety bond or insurance policy shall be an insurer whose municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bond issues results in such issues being rated in not lower than the "A" category (without regard to gradations) by any one Rating Agency. The letter of credit issuer shall be a bank or trust company which is rated not lower than the "A" category (without regard to gradations) by any one Rating Agency, and the letter of credit itself shall be rated in at least "A" category of such Rating Agency. If a disbursement is made pursuant to a Sinking Fund Reserve Facility provided pursuant to this subsection, the City shall be obligated either (i) to reinstate the maximum limits of such Sinking Fund Reserve Facility or (ii) to deposit into the applicable account or subaccount of the Sinking Fund Reserve Account, funds in the amount of the disbursement made under such Sinking Fund Reserve Facility, or a combination of such alternatives, as shall provide that the amount in the applicable account or subaccount of the Sinking Fund Reserve Account equals the Sinking Fund Reserve Requirement for the related Series of Bonds within a time period not longer than would be required to restore the applicable

Subordinate Obligation Fund. Subject to the third paragraph of this section, the Fiscal Agent upon direction of the Director of Finance, shall apply amounts in the Subordinate Obligation Fund to the payment of the principal of, redemption premium, if any, and interest on Subordinate Obligations and to payments due under any credit facility, qualified swap or standby agreement in accordance with the provisions of, and subject to the priorities and limitations and restrictions provided, in the Subordinate Obligation Ordinance or Supplemental Ordinance or Determination.

At any time and from time to time the City may deposit in the Subordinate Obligation Fund for the payment of Subordinate Obligations amounts received from any source other than Project Revenues which is not inconsistent with the General Ordinance, any Supplemental Ordinance or any Subordinate Obligation Ordinance or Determination.

If at any time the amounts in the Sinking Fund shall be less than the current requirement of such fund pursuant to subparagraphs (a) and (b) of Section 4.06 of the General Ordinance and there shall not be on deposit in the Sinking Fund Reserve Account, the Aviation Operating Fund or the Renewal Fund available moneys sufficient to cure such deficiency, then the Fiscal Agent shall withdraw from the Subordinate Obligation Fund and deposit in the Sinking Fund the amount necessary (or all the moneys in said fund, if less than the amount necessary) to eliminate such deficiency.

Any moneys in the Subordinate Obligation Fund for the payment of Subordinate Obligations, unclaimed for two (2) years after the due date shall be repaid to the City but such repayment shall not discharge the obligation, if any, for which such moneys were previously held in the Subordinate Obligation Fund; provided, however, that such repayment shall not be made unless, at the time of such repayment, there shall exist no deficiency in any fund or account established under the General Ordinance, any Supplemental Ordinance or any Subordinate Obligation Ordinance.

Aviation Capital Fund. Proceeds of Bonds issued for capital purposes shall be deposited into the Aviation Capital Fund and disbursed according to established procedures of the City for purposes permitted by the Act, other applicable law and the Bonds and such other purposes as are permitted under the General Ordinance.

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account or subaccount of the Sinking Fund Reserve Account by operation of Section 4.09 of the General Ordinance and from the same source of funds as provided herein. Upon the occurrence of any reduction or suspension of any credit rating with respect to such Sinking Fund Reserve Facility (or the provider thereof) required by Section 4.09 of the General Ordinance, the City shall replace the Sinking Fund Reserve Facility with a new one that meets the aforesaid rating requirements; provided however that with respect to any letter of credit that is a Sinking Fund Reserve Facility, the City may in lieu of replacing such Sinking Fund Reserve Facility, cause the Sinking Fund Reserve Facility to be drawn upon to the full extent possible and deposit such monies in the subaccount of the Sinking Fund Reserve Account in which the Sinking Fund Reserve Facility was held. In addition, 30 days prior to the expiration date of any Sinking Fund Reserve Facility, that is a letter of credit the City shall either extend the term of such Sinking Fund Reserve Facility by at least one year or deposit cash in the face amount of the Sinking Fund Reserve Facility in question in the appropriate account or subaccount of the Sinking Fund Reserve Account in replacement of such Sinking Fund Reserve Facility, and if the City fails to take either of such actions by such date, the Fiscal Agent shall within five Business Days thereafter draw down upon the Sinking Fund Reserve Facility that is a letter of credit to the full extent possible and deposit the proceeds of such draw in the appropriate subaccount of the Sinking Fund Reserve Account.

Renewal Fund. All amounts credited to the Renewal Fund on or after the Effective Date shall be maintained in accordance with this section. Payments from the Renewal Fund shall be made only for the following purposes: (a) to pay the cost of major repairs, renewals and replacements of Airport System facilities for purposes of meeting unforeseen contingencies and emergencies arising from the operation of the Airport System, or (b) to pay expenses chargeable as Operating Expenses if Project Revenues are insufficient, for whatever reason to cover such Operating Expenses in any Fiscal Year, (c) to pay debt service on the Bonds, or (d) to repay any loan in accordance with Section 4.05(c)(ii)(3) of the General Ordinance.

The City shall withdraw from the Renewal Fund the sum or sums necessary to make such payments and shall apply the same to such purpose. If by reason of such withdrawal or any other reason, funds on deposit in the Renewal Fund are less than the Renewal Fund Requirement, the City shall deposit in the Renewal Fund the amount of such deficiency, but only from Project Revenues as the same shall become available, by regular quarterly deposits which shall not be required to exceed the total of $500,000 in any Fiscal Year, and the availability of which shall be determined in accordance with the priorities specified in the section herein entitled "Transfer from Aviation Operating Fund to Other Funds and Accounts."

If at any time the moneys and investments in the Renewal Fund are in excess of the Renewal Fund Requirement, the amount of such excess on order of the Director of Finance, shall be paid over by the City to the Debt Service Account of the Sinking Fund, to be used and applied as are all other moneys deposited in or on deposit therein.

Rebate Fund. The Rebate Fund shall be maintained by the City for so long as any Series of Bonds is Outstanding, and for sixty (60) days thereafter (or such other period as may be specified by the Code and applicable regulations), for the purpose of paying to the United States Treasury the amount required to be rebated pursuant to Section 148(f) of the Code. All amounts in the Rebate Fund, including income earned from investment of amounts in the Rebate Fund, shall be held by the City free and clear of the lien created by the General Ordinance.

Management of Funds and Accounts. The moneys on deposit in the funds and accounts established under the General Ordinance, to the extent not currently required, shall be invested and secured as required by Section 9 of the Act, all at the direction and under the management of the Director of Finance or such other chief fiscal officer of the City as may hereinafter be established.

Investment of Funds and Accounts. All moneys deposited in any fund or account established under the General Ordinance or under any Supplemental Ordinance may be invested by the City or by the Fiscal Agent, at the oral (confirmed in writing promptly thereafter) or written direction of the City, in any Permitted Investments (except as otherwise provided in the General Ordinance with respect to the Sinking Fund, Sinking Fund Reserve Account and Rebate Fund); provided that any investments with respect to amounts on deposit in the Sinking Fund (other than the Sinking Fund Reserve Account) shall mature or shall be subject to redemption by the holder thereof upon demand at par no later than the date when such amounts are needed for the purposes of such funds or accounts.

Interest earnings on amounts on deposit (i) in the Aviation Operating Fund shall be credited to the Aviation Operating Fund; (ii) in the Sinking Fund shall be credited to the Sinking Fund to the extent needed to meet Debt Service Requirements and additional interest earnings may be credited to the Aviation Operating Fund so long as such credit will not adversely impact the tax-exempt status of tax-exempt Bonds Outstanding under the General Ordinance; (iii) in the Sinking Fund Reserve Account shall be credited to the Sinking Fund Reserve Account to the extent needed to satisfy the Sinking Fund Reserve Requirements and additional interest earnings shall be credited to the Debt Service Account of the

Sinking Fund; (iv) in the Subordinate Obligation Fund shall be credited to the Subordinate Obligation Fund to the extent needed to satisfy payment provisions for the Subordinate Obligations and additional interest earnings may be credited to the Aviation Operating Fund; (v) in the Renewal Fund, shall be credited to the Renewal Fund to the extent needed to meet the Renewal Fund Requirements and any additional interest earnings shall be credited to the Debt Service Account of the Sinking Fund; (vi) in the Aviation Capital Fund shall be credited to the appropriate account of the Aviation Capital Fund; and (vii) in the Rebate Fund shall be credited to the Rebate Fund.

Valuation of Funds and Accounts. In computing the assets of any fund or account established under the General Ordinance, investments and accrued interest thereon shall be deemed a part thereof. Such investments shall be valued on June 30 of each Fiscal Year at the lower of the cost or current market value thereof if the applicable maturity is more than one (1) year and at par if the applicable maturity is equal to or less than one (1) year plus accrued interest, or at the redemption price thereof, if then redeemable at the option of the holder; provided that investments in any reserve fund or reserve account of the Sinking Fund established pursuant to a Supplemental Ordinance may be valued as provided in the Supplemental Ordinance establishing it. The annual valuation shall apply for all purposes of the General Ordinance except if Bonds are issued or a fund deficit occurs based on the annual valuation, in which cases a valuation shall be made on the date Bonds are issued or the deficit is eliminated, as the case may be.

Covenants of City

Rate Covenant.

(a) The City covenants with Bondholders that it will, at a minimum, impose, charge and recognize as revenues in each Fiscal Year such rentals, charges and fees as shall, together with that portion of the Aviation Operating Fund balance attributable to Amounts Available for Debt Service and carried forward at the beginning of such Fiscal Year and together with all other Amounts Available for Debt Service to be received in such Fiscal Year, equal not less than the greater of:

(1) The sum of:

(i) all Net Operating Expenses payable during such Fiscal Year;

(ii) 150% of the amount required to pay the Debt Service Requirements during such Fiscal Year;

(iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such Fiscal Year; and

(iv) the amount, if any, required to be paid into the Renewal Fund during such Fiscal Year; or

(2) The sum of:

(i) all Operating Expenses payable during such Fiscal Year; and

(ii) (A) all Debt Service Requirements during such Fiscal Year (B) all debt service requirements during such Fiscal Year in respect of all outstanding General Obligation Bonds issued for improvements to the Airport System and all outstanding NSS General Obligation Bonds issued for improvements to the Airport System; (C) all debt service requirements during such Fiscal Year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service, (D) all amounts required to repay loans among funds made pursuant to Section 4.05(c) of the General Ordinance, (E) the amount, if any, required to be paid into the Sinking Fund Reserve Account or Renewal Fund during such Fiscal Year and (F) all amounts required to be paid under Exchange Agreements.

Provided, however, if (i) the written election of the City is obtained and filed with the Fiscal Agent, and (ii) so long as any Airline Agreements is in effect, the prior written consent of the Signatory Airlines to amend the Airline Agreements is obtained, then the foregoing rate covenant shall no longer be effective, and the rate covenant in the section below entitled "Alternative Rate Covenant" shall be substituted in lieu of the foregoing for all purposes.

(b) (1) In the event that any Bonds Outstanding are, or any proposed series of Bonds, are to be

Balloon Bonds, then Debt Service Requirements on such Balloon Bonds shall be calculated for purposes of projecting compliance with this section or the section below entitled "Conditions of and Provisions Relating to Issuing Bonds", or for purposes of determining the Sinking Fund Reserve Requirement for a particular series of Balloon Bonds, whether for any period prior to or after the date of calculation, as follows:

(i) If such Balloon Bonds are not Capital Appreciation Bonds, by assuming that such Bonds will be amortized on the basis of level debt service over the Assumed Amortization Period beginning on the date on which principal on Balloon Bonds is payable and that such Bonds bear interest at the Assumed Interest Rate; and

(ii) If such Balloon Bonds are Capital Appreciation Bonds, by assuming that the Accreted Value of such Bonds at maturity is to be amortized on the basis of level principal payments over the Assumed Amortization Period.[9]

[9] Upon the consent of Holders of at least sixty-seven Percent (67%) of the Outstanding Bonds, this section will be amended as follows:

(b) (1) In the event that any Bonds Outstanding are, or any proposed series of Bonds, are to be Balloon Bonds, then Debt Service Requirements on such Balloon Bonds shall be calculated for purposes of projecting compliance with the General Ordinance, or for purposes of determining the Sinking Fund Reserve Requirement for a particular series of Balloon Bonds, whether for any period prior to or after the date of calculation, as follows:

(A) If such Balloon Bonds are not Capital Appreciation Bonds, then, for purposes of determining Debt Service Requirements, each maturity that constitutes Balloon Bonds shall, unless otherwise provided in a Supplemental Ordinance under which such Balloon Bonds are issued, be treated as if it were to be amortized over a period of no more than 30 years and with substantially level annual debt service funding payments commencing not later than the year following the year in which such Balloon Bonds were issued, and

(2) The City shall be entitled to assume, in calculating Debt Service Requirements on any Variable Rate Bonds for purposes of projecting compliance with this section or funding the Sinking Fund Reserve Account, that such Variable Rate Bonds will bear interest at a rate equal to (i) the average interest rate on the Variable Rate Bonds during the period of twenty-four (24) consecutive calendar months preceding the date of calculation or (ii) if the Variable Rate Bonds were not Outstanding during the entire twenty-four (24) month period, the average interest

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extending not later than the stated or deemed, as the case may be, final maturity of such Balloon Bonds, but in no event later than 30 years from the date such Balloon Bonds were originally issued; and the interest rate used for such computation shall be that rate quoted in The Bond Buyer 25 Revenue Bond Index, or its successor or replacement index, for the last week of the month preceding the date of calculation as published by *The Bond Buyer*, or if that index is no longer published, another similar index designated in a Determination, or if a Determination fails to select a replacement index, that rate determined by a banking institution or an investment banking institution knowledgeable in airport finance as the interest rate or rates at which the City could reasonably expect to borrow by incurring indebtedness with the same term as assumed above, with no credit enhancement and taking into consideration whether such Bonds bear interest which is or is not excluded from gross income for federal income tax purposes; with respect to any Bonds only a portion of which constitutes Balloon Bonds, the remaining portion shall be treated as described in such other provision of the definition of Debt Service Requirements as shall be applicable and, with respect to any Bonds or that portion of a series thereof which constitutes Balloon Bonds, all Debt Service Requirements becoming due prior to the year of the stated maturity of the Balloon Bonds shall be treated as described in such other provision of Debt Service Requirements as shall be applicable; and

(B) If such Balloon Bonds are Capital Appreciation Bonds, by assuming that the Accreted Value of such Bonds for purposes of determining Debt Service Requirements, each maturity that constitutes Balloon Bonds shall, unless otherwise provided in a Supplemental Ordinance under which such Balloon Bonds are issued, be treated as if it were to be amortized over a period of no more than 30 years and with substantially level annual debt service funding payments commencing not later than the year following the year in which such Balloon Bonds were issued, and extending not later than the stated or deemed, as the case may be, final maturity of such Balloon Bonds, but in no event later than 30 years from the date such Balloon Bonds were originally issued; and the interest rate used for such computation shall be that rate quoted in The Bond Buyer 25 Revenue Bond Index, or its successor or replacement index, for the last week of the month preceding the date of calculation as published by *The Bond Buyer*, or if that index is no longer published, another similar index designated in a Determination, or if a Determination fails to select a replacement index, that rate determined by a banking institution or an investment banking institution knowledgeable in airport finance as the interest rate or rates at which the City could reasonably expect to borrow by incurring indebtedness with the same term as assumed above, with no credit enhancement and taking into consideration whether such Bonds bear interest which is or is not excluded from gross income for federal income tax purposes; with respect to any Bonds only a portion of which constitutes Balloon Bonds, the remaining portion shall be treated as described in such other provision of the definition of Debt Service Requirements as shall be applicable and, with respect to any Bonds or that portion of a series thereof which constitutes Balloon Bonds, all Debt Service Requirements becoming due prior to the year of the stated maturity of the Balloon Bonds shall be treated as described in such other provision of Debt Service Requirements as shall be applicable.

rate on the Variable Rate Bonds since their date of issue or (iii) such other rate as may be specified in a Supplemental Ordinance or Determination.

(3) If a series of Bonds to be issued will be Variable Rate Bonds, then for purposes of calculating the Debt Service Requirements on the proposed series of Bonds under this section or the section below entitled "Conditions of and Provisions Relating to Issuing Bonds", the rate of interest to be borne by such Variable Rate Bonds shall be deemed to be the Bond Buyer's 25 Bond Revenue Index, or any successor standard index for long-term, tax exempt, investment grade revenue bonds for a date within 90 days of the issuance of such Variable Rate Bonds.

The City represents that it has, by its Code of Ordinances, as amended, authorized the imposition of rents, rates, fees and charges by the Department of Commerce by contract, lease or otherwise sufficient from time to time to comply with the Rate Covenant and covenants with the Holders of Bonds that it will not repeal or materially adversely dilute or impair such authorization.

Operation of System

The City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as such Bonds shall remain Outstanding it will continuously maintain the Airport System or cause the Airport System to be maintained in good condition and will continuously operate the Airport System or cause the Airport System to be operated; provided that the City may dispose of such portions of the Airport System which are no longer necessary or required for Airport purposes; and provided further that this covenant shall not apply to any portion of the Airport System assigned or conveyed pursuant to Article IX of the General Ordinance.

Conditions and Provisions Relating to Issuing Bonds

The City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as any such Bonds shall remain Outstanding it will not issue or assume any Series of Bonds thereunder without first complying with the conditions set forth in subparagraphs (a) through (d) below and further covenants to comply with the provisions of subparagraphs (e) through (h) below:

(a) *Enactment of Supplemental Ordinance*. Prior to the issuance or assumption of any Series of Bonds (but only following the filing of the report and opinion required by Section 8 of the Act) the City shall enact a Supplemental Ordinance meeting the requirements of Section 5.04(a) of the General Ordinance.

(b) *Filing of Transcript*. Prior to the issuance or assumption of any Series of Bonds, the Director of Finance shall, in addition to the filing requirements of Section 12 of the Act, file with the Fiscal Agent a transcript of the proceedings authorizing the issuance of such Series of Bonds meeting the requirements of Section 5.04(b) of the General Ordinance.

(c) *Delivery of Consultant's Report*. Prior to the issuance or assumption of any Series of Bonds pursuant to a Supplemental Ordinance (except that no Consultant's report shall be required in the case of issuance of any Series of Bonds for the purpose of refunding another Series of Bonds so long as the City certifies in writing that the Debt Service Requirements in any year on the proposed refunding Bonds do not exceed the Debt Service Requirements in any such year on the Bonds to be refunded), the City shall cause to be filed with the Fiscal Agent a report of Consultants setting forth the qualifications of the Consultants and containing, among other things, a statement, supported by appropriate schedules and summaries, that, on the basis of historical and estimated future annual financial operations of the Aviation System from which pledged Amounts Available for Debt Service are to be derived, (1) for either the immediately preceding Fiscal Year of the City, or any period of 12 full consecutive months during the 18-month period preceding the delivery of the Consultant's report, the Aviation System yielded pledged Amounts Available for Debt Service sufficient to satisfy the Rate Covenant, (2) no deficiency exists in the Sinking Fund Reserve Account and (3) the Airport System will, in the opinion of the Consultants, yield pledged Amounts Available for Debt Service for each of the five Fiscal Years (or three Fiscal Years in the event that the Consultant is professionally unable to provide an opinion for a period in excess of three Fiscal Years) ended immediately following the issuance or assumption of the Bonds, sufficient to comply with the Rate Covenant.

(d) *Opinions of Counsel*. Upon the issuance of any Series of Bonds, the City shall cause to be filed with the Fiscal Agent (i) an opinion of Bond Counsel to the effect that (1) the Bonds have been duly issued or assumed for a permitted purpose under the Act and the General Ordinance and (2) all conditions precedent to the issuance or assumption of the Bonds pursuant to the Act and the General Ordinance have been satisfied, and (ii) an opinion of the City Solicitor to the effect that (1) all documents delivered by the City in connection with the issuance of the Bonds have been duly and validly authorized, executed and delivered, (2) such execution and delivery and all other actions taken by the City in connection with the issuance of the Bonds have been duly authorized by all necessary actions of City Council, and (3) nothing has come to their attention that would lead them to believe that an event of default under the General Ordinance has occurred, and is continuing. The Fiscal Agent may conclusively rely upon such opinions.

(e) *Execution of Documents*. The Mayor, the City Solicitor, the City Controller, the Director of Finance and such other officers of the City as may be appropriate are authorized in connection with the issuance or assumption of any Series of Bonds under the General Ordinance to prepare, execute and file on behalf of the City such statements, documents, certificates or other material as may accurately and properly reflect the financial condition of the City or other matters relevant to the issuance or payment of such Bonds and as may be required or appropriate to comply with applicable State or Federal laws or regulation.

(f) *Disposition of Proceeds*. Unless otherwise provided in the applicable Supplemental Ordinance or Determination, accrued interest on Bonds shall be deposited in the Sinking Fund, an amount sufficient to satisfy the requirements of Section 4.09 of the General Ordinance shall be deposited in the Sinking Fund Reserve Account and the balance of the proceeds of the Bonds shall be deposited in the Bond Proceeds Account of the Aviation Capital Fund and shall be disbursed therefrom, in accordance with established procedures of the City, as provided in Section 4.11 of the General Ordinance, provided, however, that if such Bonds shall be issued for the purpose of funding or refunding Bonds previously issued by the City such proceeds shall, unless otherwise directed by the Supplemental Ordinance, be deposited in a special fund or account to be established with and held by the Fiscal Agent or another entity acting as an escrow agent and invested (if appropriate) and disbursed under the direction of the Director of Finance for the purpose of retiring the Bonds being funded or refunded.

(g) *Refunding Bonds*. If the City shall, by Supplemental Ordinance, authorize the issuance of refunding Bonds pursuant to Section 10 of the Act, in the absence of specific direction or inconsistent authorization in the Supplemental Ordinance, the Director of Finance is authorized by the General Ordinance in the name and on behalf of the City to take all such action, including the irrevocable pledge of proceeds and the income and profit from the investment thereof for the payment and redemption of the refunded Bonds, bonds or notes including the publication of all required redemption notices or the giving of irrevocable instructions therefor, as may be necessary or appropriate to accomplish the funding or refunding and to comply with the requirements of Section 10 of the Act.

(h) *Subordinate Obligations*. The City may, at any time, or from time to time, issue Subordinate Obligations for any purpose permitted under the Act pursuant to a Subordinate Obligation Ordinance. Subordinate Obligations shall be payable out of, and may be secured by a security interest in and a pledge and assignment of Project Revenues; provided, however, that any such security interest in and pledge and assignment of Project Revenues and amounts on deposit in the Subordinate Obligation Fund shall be, and shall be expressed to be, subordinate in all respects to the security interest in, and pledge and assignment of the Pledged Amounts for the security of Bonds.

Delivery of Reports

The City covenants with the Holders of all Bonds Outstanding under the General Ordinance that so long as such Bonds shall remain Outstanding it will, within one hundred twenty (120) days following the close of each Fiscal Year of the City or as soon thereafter as is practicable (not exceeding one hundred fifty (150) days following the close of each Fiscal Year), file with the Fiscal Agent a report of the operation of the Airport System for such Fiscal Year, including a statement of revenue, expenses, and net revenue (in each case not inconsistent with the statement of income, expenses, and other accounts of the City audited by the City Controller) prepared by the City or its Division of Aviation in accordance with the accrual basis of accounting adjusted to meet the particular requirements of the Airline Agreements and the General Ordinance consistently applied, showing compliance with the Rate Covenant and containing any required information as to the Cost Centers prepared in accordance with the Cost Accounting System, accompanied by a certificate of the Director of Commerce that the Airport System is in good operating condition and by a certificate of the Director of Finance that as of the date of such report the City has complied with all of the covenants in the General Ordinance and in all Supplemental Ordinances on its part to be performed. Such report shall be furnished to the Fiscal Agent in such reasonable number of copies as shall be required to meet the written requests of Bondholders therefor on a first come first served basis.

Disposition of Insurance Proceeds and Proceeds from the Sale of Assets

In the event that any assets of the Airport System are destroyed or the City shall sell any assets of the Airport System (except in the event of the sale or transfer of all or substantially all of the assets of the Airport System under Section 9.01 of the General Ordinance), the City shall apply such amounts, at the direction of the Director of Finance or such other chief fiscal officer of the City as may hereinafter be established (i) to the retirement of the principal amount of debt incurred in respect to the Airport System; (ii) to the reconstruction, repair or replacement of assets of the Airport System; (iii) to the making of capital additions or improvements to the Airport System or (iv) to the deposit in one of the Aviation Funds for any other Airport System purpose; provided that, if the insurance proceeds or the proceeds from the sale of assets are less than or equal to one and five-tenths percent (1.5%) of the depreciated value of property, plant and equipment of the Airport System, as shown on the financial statements of the City for the preceding Fiscal Year, such amounts may be used for any Airport System purpose.

Bonds Not to Become Arbitrage Bonds

The City covenants for the benefit of the Bondholders that, notwithstanding any other provision of the General Ordinance or any other instrument, it will neither make nor instruct the Fiscal Agent to make any investment or other use of amounts on deposit in the funds and accounts established under the General Ordinance or other proceeds of the Bonds which would cause any Series of Bonds issued under the General Ordinance as tax-exempt to be arbitrage bonds under Section 148 of the Code and the regulations thereunder to the extent that the same are applicable at the time of such investment; it will file any reports required to be filed pursuant to the Code; and it will not take or fail to take any action so as to render any Series of Bonds issued under the General Ordinance as tax-exempt to be arbitrage bonds under Section 148 of the Code.

Prohibition Against Certain Uses of Funds; Enforcement

(a) The City covenants that while any Bonds are Outstanding under the General Ordinance, it will not direct the Fiscal Agent to transfer, loan or advance proceeds of the Bonds or Amounts Available for Debt Service from the Aviation Funds to any City account for application other than for Airport System purposes.

(b) If, on any date when a deposit is required to be made of the Project Revenues, the City fails to comply with any provision of the General Ordinance, the Fiscal Agent is authorized to and shall seek, by mandamus or other suit, action or proceeding at law or in equity, the specific enforcement or performance of the obligation of the City to cause the Project Revenues to be transferred to the Aviation Operating Fund, and still have any and all other rights and remedies of a fiscal agent under the General Ordinance, any Supplemental Ordinance, the Act or otherwise at law or in equity.

Credit Facilities, Standby Agreements and Qualified Swaps

All or any of the foregoing covenants of the City for the benefit of the Bondholders may also be for the benefit of the providers of any Credit Facility, Standby Agreement and any Qualified Swap to the extent provided in a Supplemental Ordinance or Determination.

Fiscal Agent

Fiscal Agent. The Fiscal Agent under the General Airport Revenue Bond Ordinance of 1978 or its successor, shall be Fiscal Agent as of the Effective Date for the General Ordinance. The City may appoint a successor Fiscal Agent by Supplemental Ordinance to act as Fiscal Agent under the General Ordinance, and in connection with the Bonds issued thereunder. The Fiscal Agent shall also act as depository of the Sinking Fund and the Subordinate Obligation Fund, and may act as paying agent and Bonds Registrar.

Nothing in the General Ordinance shall be construed to prevent the City, in accordance with law, from engaging other Fiscal Agents from time to time or to engage other paying agents of the Bonds or any Series thereof in addition to, or as a successor to the Fiscal Agent. Any entity appointed by the City as Fiscal Agent under the General Ordinance shall be a trust company or national or state bank having trust powers and combined capital and surplus of at least fifty million ($50,000,000) dollars and be qualified to serve pursuant to the Act. Any entity appointed by the City as Fiscal Agent under the General Ordinance as a successor to the Fiscal Agent shall assume all rights and obligations of the Fiscal Agent thereunder.

Subject to the foregoing, the proper officers of the City are authorized to enter into contracts or to confirm existing agreements governing the maintenance of funds and accounts and records, the disposal of canceled Bonds, the rights, duties, privileges and immunities of the Fiscal Agent, and such other matters as are authorized by the Act and as are customary and appropriate and to confirm the agreement of the Fiscal Agent, in its several capacities, to comply with the provisions of the Act and of the General Ordinance.

The Fiscal Agent shall keep on file a copy of each report and its accompanying certificates delivered to it pursuant to the General Ordinance for a period of ten (10) years and shall exhibit the same to, and permit the copying thereof by, any Bondholder, or his authorized representative at all reasonable times.

<u>*Resignation of Fiscal Agent*</u>. The Fiscal Agent may resign and be discharged of the duties created by the General Ordinance by written resignation filed with the Director of Finance not less than sixty (60) days before the date when such resignation is to take effect. Such resignation shall take effect on the day specified in such notice provided that a successor Fiscal Agent has been appointed and has accepted its role as Fiscal Agent. If a successor Fiscal Agent is appointed prior to the date specified in the notice, the resignation shall take effect immediately on the appointment and acceptance of such successor, and the City shall give the notices required in the following section.

<u>*Appointment of Successor Fiscal Agent*</u>. If the Fiscal Agent or any successor Fiscal Agent resigns, is replaced, or is dissolved or if its property or business is taken under the control of any state or Federal court or administrative body, a vacancy shall exist in the office of the Fiscal Agent, and the City shall appoint a successor within thirty (30) days of such vacancy and shall mail notice of such appointment to the Bondholders and to the registered depositories at their registered addresses by first class mail, postage prepaid, within thirty (30) days of such appointment. If no successor is appointed within such thirty (30) day period, the Fiscal Agent and any Bondholder may petition any court of competent jurisdiction to appoint a successor.

Defaults and Remedies

<u>*Defaults and Statutory Remedies: Notice to Bondholders*</u>. If the City shall fail or neglect to pay or to cause to be paid the principal of, redemption premium, if any, or interest on any Bond or any Series of Bonds issued under the General Ordinance, whether at stated maturity or upon call for prior redemption or if the City, after written notice to it, shall fail or neglect to make any payment owed by it as a result of a Credit Facility or Standby Agreement and secured by a parity pledge of Project Revenues entered into with respect to Bonds and the provider of the Credit Facility or Standby Agreement provides written notification to the Fiscal Agent of such failure or neglect, or if the City shall fail to comply with any provision of any Bonds or with any covenant of the City contained in the General Ordinance, then, under and subject to the terms and conditions stated in the Act, the Holder or Holders of any Bond or Bonds shall be entitled to all of the rights and remedies, including the appointment of a trustee, provided in the Act; provided, however, that the remedy provided in Section 20(b)(4) of the Act may be exercised only upon the failure of the City to pay, when due, principal and redemption price (including principal due as a result of a scheduled mandatory redemption) and interest on a Series of Bonds.

Upon the occurrence of an event of default specified in this section, or if an event occurs which could lead to a default with the passage of time and of which the Fiscal Agent has actual notice, the Fiscal Agent shall, within thirty (30) days, given written notice thereof by first-class mail to all Bondholders.

<u>*Remedies Not Exclusive; Effect of Delay in Exercise of Remedies*</u>. No remedy in the General Ordinance or in the Act conferred upon or reserved to the trustee, if any, or to the Holder of any Bond is intended to be exclusive (except as specifically provided in the Act) of any other remedy or remedies, and each and every such remedy shall be cumulative, and shall be in addition to every other remedy given under the General Ordinance or now or hereafter existing at law or in equity or by statute.

No delay or omission of a trustee, if one be appointed pursuant to Section 20 of the Act, or of any Holder of the Bonds to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default, or an acquiescence therein; and every power and remedy given by Article VIII of the General Ordinance, by the Act or otherwise may be exercised from time to time, and as often as may be deemed expedient.

<u>*Remedies to be Enforced Only Against Pledged Amounts*</u>. Any decree or judgment for the payment of money against the City by reason of default under the General Ordinance shall be enforceable

only against the Pledged Amounts, and no decree or judgment against the City upon an action brought under the General Ordinance shall order or be construed to permit the occupation, attachment, seizure, or sale upon execution of any other property of the City.

Conveyance of System and Assignment, Assumption and Release of Obligations

Conveyance and Assignment, Assumption and Release. Nothing in the General Ordinance shall prevent the City from conveying and assigning to a municipal authority created pursuant to the Municipality Authorities Act, 53 Pa. C. S. ch. 56, or an authority created pursuant to any other applicable statute or to another entity (the "Authority") all or substantially all (or less than substantially all, as provided below) of its right, title and interest in the Airport System and thereupon becoming released from all of its obligations under the General Ordinance, under any Supplemental Ordinance and under the Bonds and related obligations, including, but not limited to Credit Facilities, Standby Agreements, Qualified Swaps and Exchange Agreements, (i) if the Authority assumes in writing the City's obligations (1) to operate or cause the Airport System to be operated and to maintain or cause the Airport System to be maintained in good condition; and (2) to pay the principal, redemption premium, if any, and interest on all Outstanding Bonds and Subordinate Obligations, and all payments due under Credit Facilities, Standby Agreements, Qualified Swaps and Exchange Agreements entered into pursuant to the General Ordinance and then outstanding according to the terms thereof; and (ii) if the instrument of assumption provides the Bondholders or the trustee or entity serving in a similar capacity and acting on behalf of the Bondholders with the substantial equivalent of all of the rights and remedies provided in the General Ordinance and the Act; provided, however, that before the City may consummate such a conveyance and assignment and obtain a release of its obligations under the General Ordinance, under any Supplemental Ordinance and under the Bonds and related obligations, including but not limited to Credit Facilities, Standby Agreements, Qualified Swaps, and Exchange Agreements, the following conditions shall have been satisfied:

(a) the City and the Fiscal Agent shall have received an opinion of the City Solicitor substantially to the effect that the conveyance to the Authority of all or substantially all of the City's right, title and interest in the Airport System, the assignment to the Authority of the obligations of the City under the General Ordinance, any Supplemental Ordinance, the Bonds and any Subordinate Obligations to make payments of principal, redemption premium, if any, and interest on the Bonds, and the release of the City from all of its obligations under the General Ordinance, under any Supplemental Ordinance, under the Bonds or any Subordinate Obligations, and under related obligations, including, but not limited to, Credit Facilities, Standby Agreements, Qualified Swaps and Exchange Agreements, have been duly authorized by the City and do not violate any applicable law, ordinance, resolution or regulation of the City or any applicable court decision;

(b) the City and the Fiscal Agent shall have received an opinion of the solicitor of the Authority substantially to the effect that (i) the acquisition by the Authority of all or substantially all of the City's right, title and interest in the Airport System and the assumption by the Authority of the City's obligations under the General Ordinance, under any Supplemental Ordinance, under the Bonds, and any Subordinate Obligations to make payments of principal, redemption premium, if any, and interest on the Bonds and any Subordinate Obligations and related obligations, including, but not limited to, Credit Facilities, Standby Agreements, Qualified Swaps and Exchange Agreements, have been duly authorized by the Authority and do not violate any law, ordinance, resolution or regulation applicable to the Authority or any applicable court decision; (ii) the instrument under which the Authority assumes the obligations of the City under the General Ordinance, under any Supplemental Ordinance and under the Bonds, and any Subordinate Obligations to make payments of principal, redemption premium, if any, and interest on the Bonds and any Subordinate Obligations constitutes a valid and binding obligation of the Authority enforceable in accordance with its terms except as enforcement may be limited by bankruptcy, insolvency or other similar laws or equitable principles affecting the enforcement of creditors' rights; (iii) the security interest granted by the Authority pursuant to subparagraph (d) creates a valid and effective lien in favor of Holders of Bonds and security interest in the Pledged Amounts to be generated by the Airport System; and (iv) the rates and charges established by the Authority and referred to below in subparagraph (e) have been duly authorized and enacted in accordance with applicable law;

(c) the City and the Fiscal Agent shall have received an opinion of Bond Counsel substantially to the effect that (i) the conveyance of all or substantially all of the City's right, title and interest in the Airport System to the Authority; the release of the City from its obligations under the General Ordinance, under any Supplemental Ordinance and under the Bonds and any Subordinate Obligations; and the assumption by the Authority of the City's obligations under the General Ordinance, under any Supplemental Ordinance, under the Bonds and Subordinate Obligations to make payments of principal, redemption premium, if any, and interest on the Bonds and Subordinate Obligations, and under related obligations, including, but not limited to, Credit Facilities, Standby Agreements, Qualified Swaps and Exchange Agreements, will not have an adverse effect on the exemption of interest on any series of Bonds issued as tax-exempt Bonds; (ii) the instrument under which the Authority assumes the obligations of the City under the General Ordinance, under any Supplemental Ordinance and under the Bonds to make payments of principal, redemption premium, if any, and interest on the Bonds constitutes a valid and binding obligation of the Authority enforceable in accordance with its terms except as enforcement may be limited by bankruptcy, insolvency or other similar laws or equitable principles affecting the enforcement of creditors' rights, and (iii) the security interest granted by the Authority pursuant to subparagraph (d) creates a valid and effective lien in favor of the Holders of Bonds and security interest in the Pledged Amounts;

(d) the Authority shall, concurrently with the conveyance, assignment, assumption and release described above, grant to the trustee or entity serving in a similar capacity and acting on behalf of Bondholders a security interest in Pledged Amounts following the conveyance, assignment, assumption and release;

(e) the City and the Fiscal Agent shall have received a report of a Consultant, concluding that for each of the three (3) twelve (12) month periods following the conveyance, assignment, assumption and release described above, or for each of the three (3) fiscal years of the Authority commencing with the first full fiscal year of the Authority following the conveyance, assignment, assumption and release described above, the Airport System is projected to generate Amounts Available for Debt Service in an amount which is sufficient to enable the Authority to comply with the Rate Covenant determined in accordance with consistently applied accounting principles for each of the three twelve (12) month periods or three (3) fiscal years, as the case may be;

(f) the Authority shall have the authority, so long as Bonds remain Outstanding, to establish, and shall have established and shall have agreed to maintain rates and charges in connection with the operation of the Airport System at a level sufficient, in the opinion of a Consultant, as contained in a report filed with the Fiscal Agent, to generate Amounts Available for Debt Service in an amount which is sufficient to enable the Authority to comply with the Rate Covenant determined in accordance with consistently applied accounting principles;

(g) the Authority shall have agreed, so long as Bonds remain Outstanding, to incur or assume no parity debt payable from Amounts Available for Debt Service following the conveyance, assignment, assumption and release unless (1) in the case of debt incurred or assumed for the purpose of financing capital improvements, extensions, or expansions to the Airport System, or acquisition or assumption of such other assets for use in the operation, maintenance, and administration of the Airport System, or (2) in the case of debt incurred or assumed for the purpose of refinancing existing debt, the Authority first shall have obtained a report of a Consultant, concluding that on the basis of historical and estimated future annual financial operations of the Airport System from which Amounts Available for Debt Service are to be derived, (A) for either the immediately preceding Fiscal Year of the City, or any period of 12 full consecutive months during the 18-month period preceding the delivery of the Consultant's report, the Airport System yielded Amounts Available for Debt Service sufficient to satisfy the Rate Covenant, (B) no deficiency exists in the Sinking Fund Reserve Account and (C) the Airport System will, in the opinion of the Consultants, yield Amounts Available for Debt Service for each of the five Fiscal Years (or, if interest on all or a portion of the proposed debt is to be capitalized, following the Fiscal Year up to which interest has been capitalized on the debt or a portion thereof; provided that in the event that the Consultant is professionally unable to provide an opinion for a period in excess of three Fiscal Years, then such opinion may be for such three year period) ended immediately following the issuance or assumption of the Bonds, sufficient to comply with the Rate Covenant; provided, however, no Consultant's report is required to be delivered in the case of debt incurred or assumed for the purpose of refinancing existing debt, so long as the Authority certifies in writing that the Debt Service Requirements in any year on the proposed refinancing obligations do not exceed the Debt Service Requirements in any such year on the obligations to be refinanced. For purposes of the foregoing sentence and subparagraphs (e) and (f), the phrases "Amounts Available for Debt Service" and "Debt Service Requirements" shall have the meaning assigned in Section 2.01 of the General Ordinance with the exception that references therein to Bonds shall be deemed to include reference to Subordinate Obligations, General Obligation Bonds or NSS General Obligation Bonds which continue to be Outstanding after such transfer, additional debt of the Authority payable from revenues of the Airport System and the debt, if any, which the Authority proposes to incur or assume; and

(h) the Authority shall have agreed to incur or assume no obligation secured, or to be secured, by a pledge of Pledged Amounts senior to the pledge securing the Bonds.

In consideration of such conveyance and transfer, the Authority may finance and pay to the City compensation in an amount agreed upon between the City and Authority. Any such financing and payment of compensation to the City shall be disregarded in determining whether the Authority's instrument of assumption provides the Bondholders or the trustee or entity serving in a similar capacity on behalf of the Bondholders with the substantial equivalent of all of the rights and remedies provided in the General Ordinance and the Act.

Notwithstanding the foregoing, the City may convey to the Authority less than substantially all of its right, title and interest in the Airport System if a Consultant shall first have certified that the assets of and/or rights and interest in the Airport System which the City proposes to exclude from the conveyance to the Authority are not material to the ability of the Airport System to generate revenues following the conveyance. If less than substantially all of the assets of and/or rights and interest in the Airport System are conveyed to the Authority pursuant to this paragraph, references in the preceding paragraphs of this section to "all or substantially all of the City's right, title and interest in the Airport System" shall be deemed modified to reflect a conveyance of less than substantially all of the City's right, title and interest in the Airport System.

In connection with the conveyance to the Authority of all or substantially all of the City's right, title and interest in the Airport System, the City shall convey and assign to the Authority all amounts on deposit in the funds and accounts established under the General Ordinance, provided that any reserve funds shall be transferred as trust funds established for the benefit of the Series of Bonds for which such reserve funds were initially established. The Fiscal Agent shall take such actions as are necessary to terminate its security interest in the Project Revenues and funds and accounts established under the General Ordinance. If the City transfers less than substantially all of its right, title and interest in the Airport System then the City shall convey and assign to the Authority an amount of the balances on deposit in funds and accounts established under the General Ordinance proportionate to the amount of Bonds assumed or defeased. The City Controller shall certify the balances on deposit in the funds and accounts established under the General Ordinance as of the date of the conveyance. To the extent permitted by law, the City Controller will have the right to audit the books of any public Authority created by the City of Philadelphia pursuant to the laws of the Commonwealth of Pennsylvania, and the City Controller will be compensated by such public Authority for reasonable costs incurred in connection with the audit of such books.

Anything in the General Ordinance to the contrary notwithstanding, upon conveyance of all or substantially all of the assets of the Airport System to the Authority pursuant to Article IX of the General Ordinance, the provisions of the General Ordinance shall no longer be enforceable against the City.

Nothing contained in Article IX of the General Ordinance shall be construed to prohibit the City from conveying and assigning all or substantially all (or less than substantially all, as provided in Article IX) of its right, title and interest in the Airport System to an entity owned by private persons provided that the requirements of Article IX of the General Ordinance are otherwise satisfied.

Alternative Rate Covenant.

(i) The Authority may elect, upon conveyance of all or substantially all of the City's right, title and interest in the Airport System, to include in the resolution of the Authority the following rate covenant in lieu of the Rate Covenant contained in Article V of the General Ordinance, and such election shall state whether such election shall become effective as of the date of conveyance, or as of the first day of the immediately succeeding Fiscal Year. If such election states that it shall become effective beginning on the first day of the immediately succeeding Fiscal Year, then the Rate Covenant in Section 5.01 of the General Ordinance shall remain in effect from the date of conveyance until the last day of the Fiscal Year in which the conveyance took place.

The Authority covenants with the Bondholders that it will, at a minimum, impose, charge and collect in each Fiscal Year such rents, rates, fees and charges, together with any Amounts Available for Debt Service carried forward at the beginning of such Fiscal Year, as shall yield Amounts Available for Debt Service which shall be equal to the greater of the following amounts:

(A) the lesser of (1) The sum of: (i) all Net Operating Expenses incurred during such Fiscal Year; (ii) 150% of Debt Service Requirements payable during the Fiscal Year; (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such Fiscal Year; and (iv) the amount, if any, required to be paid into the Renewal Fund during the Fiscal Year, or (2) The sum of: (i) all Operating Expenses incurred during such Fiscal Year; (ii) 125% of Debt Service Requirements payable during the Fiscal Year; (iii) the amount, if any, required to be paid into the Sinking Fund Reserve Account during such Fiscal Year; and (iv) the amount, if any, required to be paid into the Renewal Fund during the Fiscal Year; or

(B) (1) The sum of: (i) all Operating Expenses incurred during such Fiscal Year, (ii) all Debt Service Requirements during such Fiscal Year, (iii) all debt service requirements during such Fiscal Year in respect of all outstanding General Obligation Bonds or NSS General Obligation Bonds issued for improvements to the Airport System; (iv) all debt service requirements during such Fiscal Year on Subordinate Obligations and any other subordinate indebtedness secured by any Amounts Available for Debt Service, (v) all amounts required to repay loans among funds made pursuant to Section 4.05(c) of the General Ordinance, (vi) the amount, if any, required to be paid into the Sinking Fund

Reserve Account or Renewal Fund during such Fiscal Year and (vii) all amounts required to be paid under Exchange Agreements.

(j) Promptly upon any material change in the circumstances which were contemplated at the time such rents, rates, fees and charges were most recently reviewed, but not less frequently than once in each Fiscal Year, the Authority shall review the rents, rates, fees and charges as necessary to enable the Authority to comply with the foregoing requirements; provided that such rents, rates, fees and charges shall in any event produce moneys sufficient to enable the Authority to comply with its covenants in the resolution.

Amendments and Modifications

Amendments and Modifications. In addition to the enactment of Supplemental Ordinances supplementing or amending the General Ordinance in connection with the issuance of successive Series of Bonds, the General Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission herein or therein or to make such provisions in regard to matters or questions arising hereunder or thereunder which shall not be inconsistent with the provisions hereof or thereof and which shall not adversely affect the interests of Bondholders; (b) to grant to or confer upon Bondholders, or a trustee, if any, for the benefit of Bondholders any additional rights, remedies, powers, authority, or security that may be lawfully granted or conferred; (c) to incorporate modifications requested by any Rating Agency or Credit Facility provider to obtain or maintain a credit rating on any Series of Bonds; (d) to comply with any mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Bonds; provided however that no amendment or modification discussed in parts (a)-(d) shall be made with respect to any Outstanding Bonds to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or to alter the redemption provisions thereof without the written consent of the Holders of all affected Outstanding Bonds; and (e) except as aforesaid, in such other respect as may be authorized in writing by the Holders of sixty-seven percent (67%) in principal amount or Original Value in the case of Capital Appreciation Bonds of the Bonds Outstanding and affected. In the case of a Credit Facility, Standby Agreement or Qualified Swap, if and to the extent provided in the Supplemental Ordinance and Determination of Bonds related thereto, the provider thereof may be the representative of the Bondholders of such Series or portion of such Series for purposes of Bondholder consent, approval or authorization. The written authorization of Bondholders of any supplement to or modification or amendment of the General Ordinance or any Supplemental Ordinance need not approve the particular form of any proposed supplement, modification or amendment but only the substance thereof. Bonds, the payment for which has been provided for in accordance with Section 6.04 of the General Ordinance, shall be deemed to be not Outstanding.[10]

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[10] Upon the consent of Holders of at least sixty-seven percent (67%) of the Outstanding Bonds, this section will be amended as follows:

> In addition to the enactment of Supplemental Ordinances supplementing or amending the General Ordinance in connection with the issuance of successive Series of Bonds, the General Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission herein or therein or to make such provisions in regard to matters or questions arising hereunder or thereunder which shall not be inconsistent with the provisions hereof or thereof and which shall not adversely affect the interests of Bondholders; (b) to grant to or confer upon Bondholders, or a trustee, if any, for the benefit of Bondholders any additional rights, remedies, powers, authority, or security that may be lawfully granted or conferred; (c) to incorporate modifications requested by any Rating Agency or Credit Facility provider to obtain or maintain a credit rating on any Series of Bonds; (d) to comply with any

Miscellaneous

Deposit of Funds for Payment of Bonds. When interest on, and principal or redemption price (as the case may be) of, all Bonds issued under the General Ordinance, and all amounts owed under any Credit Facility and Standby Agreement entered into under the General Ordinance, have been paid, or there shall have been deposited with the Fiscal Agent or an entity which would qualify as a Fiscal Agent under Section 7.01 thereof an amount, evidenced by moneys or Qualified Escrow Securities the principal of and interest on which, when due, will provide sufficient moneys to fully pay the Bonds at the maturity date or date fixed for redemption thereof, and all amounts owed under any Credit Facility and Standby Agreement entered into under the General Ordinance, the pledge and grant of a security interest in the Pledged Amounts under the General Ordinance shall cease and terminate, and the Fiscal Agent and any other depository of funds and accounts established thereunder shall turn over to the City or to such person, body or authority as may be entitled to receive the same all balances remaining in any funds and accounts established under the General Ordinance.

If the City deposits with the Fiscal Agent or such other qualified entity moneys or Qualified Escrow Securities sufficient to pay, together with interest thereon, the principal or redemption price of any particular Bond or Bonds becoming due, either at maturity or by call for redemption or otherwise, together with all interest accruing thereon to the due date, interest on the Bond or Bonds shall cease to accrue on the due date and all liability of the City with respect to such Bond or Bonds shall likewise cease, except as provided in the following paragraph. Thereafter such Bond or Bonds shall be deemed not to be outstanding under the General Ordinance and shall have recourse solely and exclusively to the funds so deposited for any claims of whatsoever nature with respect to such Bond or Bonds, and the Fiscal Agent or such other qualified entity shall hold such funds in trust for such Holder or Holders.

Moneys deposited with the Fiscal Agent or such other qualified entity pursuant to the preceding paragraphs which remain unclaimed two (2) years after the date payment thereof becomes due shall, upon written request of the City, if the City is not at the time to the knowledge of the Fiscal Agent or such other qualified entity (the Fiscal Agent having no responsibility to independently investigate), in default with respect to any covenant in the General Ordinance or the Bonds contained, be paid to the City; and the Holders of the Bond for which the deposit was made shall thereafter be limited to a claim against the City; provided, however, that before making any such payment to the City, the Fiscal Agent or such other

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mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Bonds; provided however that no amendment or modification discussed in parts (a)-(d) shall be made with respect to any Outstanding Bonds to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or to alter the redemption provisions thereof without the written consent of the Holders of all affected Outstanding Bonds; and (e) except as aforesaid, in such other respect as may be authorized in writing by the Holders of fifty-one percent (51%) in principal amount or Original Value in the case of Capital Appreciation Bonds of the Bonds Outstanding and affected. In the case of a Credit Facility, Standby Agreement or Qualified Swap, if and to the extent provided in the Supplemental Ordinance and Determination of Bonds related thereto, the provider thereof may be the representative of the Bondholders of such Series or portion of such Series for purposes of Bondholder consent, approval or authorization. The written authorization of Bondholders of any supplement to or modification or amendment of the General Ordinance or any Supplemental Ordinance need not approve the particular form of any proposed supplement, modification or amendment but only the substance thereof. Bonds, the payment for which has been provided for in accordance with Section 6.04 the General Ordinance, shall be deemed to be not Outstanding.

qualified entity shall, at the expense of the City, publish in a newspaper of general circulation published in Philadelphia, Pennsylvania, a notice of said moneys remain unclaimed and that, after a date named in said notice, which date shall be not less than thirty (30) days after the date of publication of such notice, the balance of such moneys then unclaimed will be paid to the City.

This section shall not be construed to limit the procedure set forth in Section 10 of the Act for calculating the principal or redemption price of and interest on any Bonds for the purpose of ascertaining the sufficiency of revenues for the purpose of Sections 7(a)(5) and 8(a)(iii) of the Act for the purpose of determining the outstanding net debt of the City if General Obligation Bonds of the City are refunded pursuant to the Act.

No deposit of funds shall be made pursuant to Section 11.01 of the General Ordinance if, in the opinion of Bond Counsel, such action shall cause the interest on any Series of Bonds initially issued as tax exempt Bonds, to become subject to Federal income tax.

Ordinances are Contracts With Bondholders. The General Ordinance and Supplemental Ordinances adopted pursuant thereto are contracts with the Holders of all Bonds from time to time Outstanding under the General Ordinance and thereunder and shall be enforceable in accordance with the provisions thereof and the laws of Pennsylvania.

THE FIFTEENTH SUPPLEMENTAL ORDINANCE

The 2017 Bonds will be issued under and are subject to the Fifteenth Supplemental Ordinance which supplements the provisions of the General Ordinance. Reference is made to the Fifteenth Supplemental Ordinance and the General Ordinance for complete details of the terms of the 2017 Bonds. All capitalized and defined terms used in the following summary of the Fifteenth Supplemental Ordinance which are not otherwise defined in this Official Statement are defined as in the General Ordinance.

The Fifteenth Supplemental Ordinance authorizes the Mayor, the City Controller and the City Solicitor, or a majority of them (the "Bond Committee"), on behalf of the City of Philadelphia (the "City"), to borrow, by the issuance and sale of one or more series of Airport Revenue Bonds of the City (the "Bonds"). The Bonds are to be issued under and pursuant to The First Class City Revenue Bond Act of October 18, 1972, Act No. 234 (the "Act"), and are to be secured by the General Ordinance. The aggregate principal amount of the Bonds shall not exceed Eight Hundred Fifteen Million Dollars ($815,000,000) exclusive of costs of issuance (including underwriters' discount), original issue discount, capitalized interest, funding of deposits to the Sinking Fund Reserve Account and similar items, and in the event the Bonds are issued with such items, the Bond Committee is authorized to increase the aggregate principal amount of the Bonds so issued, by the amount of such items (the "Additions").

As indicated in the Fifteenth Supplemental Ordinance, the Bonds shall bear interest from the dated date thereof to maturity or prior redemption, if any, at prescribed fixed or variable rates (not exceeding any limitation prescribed by law) as specified or provided in the Determination. The Bonds shall contain series or subseries designations, terms and provisions (including without limitation, interest payment dates, record dates, redemption provisions, denominations, provisions for payments by wire transfer and provision for issuance of the Bonds in book entry form) as the Bond Committee shall determine to be in the best interest of the City and which are not inconsistent with the provisions of the Fifteenth Supplemental Ordinance, of the Act or of the General Ordinance. In connection with the issuance of the Bonds, the Bond Committee is authorized by the Fifteenth Supplemental Ordinance to enter into such Qualified Swaps, Exchange Agreements or similar instruments as it may determine and as are permitted by the General Ordinance.

The Fifteenth Supplemental Ordinance provides that the Bonds shall not pledge the credit or taxing power of the City, or create any debt, charge or lien against the tax, general revenues or property of the City other than the revenues pledged by the General Ordinance. The Bond Committee is authorized on behalf of the City to enter into agreements (the "Enhancement Agreements") with any bank, insurance company or other appropriate entity providing credit enhancement or payment or liquidity sources for the account of the City for the Bonds, including, without limitation, letters of credit, lines of credit and insurance. Such Enhancement Agreements may provide for payment or acquisition of the Bonds if the City does not pay the Bonds when due and may provide for repayment with interest to the bank or other institution from the date of such payment or acquisition. The Bond Committee is authorized to make all such covenants and to take any and all necessary or appropriate or other actions in connection with the consummation of the transactions contemplated by the Fifteenth Supplemental Ordinance.

The Fifteenth Supplemental Ordinance provides that the Bonds shall be issued in one or more series at the same or different times for the following purposes: (i) as a loan or other direct financing agreement (the "Direct Loan Obligations") with one or more banks whereby one or more series or subseries of tax-exempt or taxable airport revenue bonds of the City are issued and sold and the proceeds thereof to be used for the acquisition of land for the Airport System and/or other capital financing needs of the Airport System and for the refunding of a portion of notes issued in connection with the City's January 8, 2013 Airport Revenue Note Commercial Paper Program (the "Commercial Paper Notes"), (ii) as one or more series of tax-exempt or taxable Airport Revenue Bonds of the City that are issued and sold with the proceeds thereof being used for capital projects at the Airport System (the "New Money Bonds"), and (iii) as one or more series of tax-exempt or taxable Airport Revenue Refunding Bonds of the City (the "Refunding Obligations") that are issued and sold with the proceeds thereof being used to retire prior bonds and notes of the Airport System.

The Fifteenth Supplemental Ordinance provides that the New Money Bonds will be issued to pay for projects which consist of such capital improvements to the Airport System as may, from time to time, heretofore have been, or hereafter be, included in the capital budget of the City; the construction of such other improvements to, and facilities in, the Airport System, and the acquisition, demolition or replacement of such other real property or property of a capital nature for use in the operation, maintenance and administration of the Airport System as the Director of Commerce may, from time to time, deem necessary or desirable for the prudent management of the Airport System and secure, to the extent required by the Home Rule Charter, the approval of Council therefor; and the permanent funding of the cost, if any, of any of the foregoing projects that have been, or hereafter may be, temporarily funded by advances from other funds of the City, or by the Airlines, or by notes (including commercial paper) issued in anticipation of the issuance of the New Money Bonds, together with interest thereon.

The Fifteenth Supplemental Ordinance provides that the Refunding Obligations shall be issued to refund, defease, prepay and/or redeem all or any portion of: (i) the Direct Loan Obligations; (ii) the Commercial Paper Notes; (iv) the City's outstanding Airport Revenue Bonds, Series 2007A; (v) the City's outstanding Airport Revenue Bonds, Series 2007B; (vi) the City's outstanding Airport Revenue Bonds, Series 2009A ((i) through (vi) are collectively, the "Refunding Project"); all upon such terms and in such amounts as shall be determined by the Director of Finance.

The Bonds may have a delivery date which occurs in a fiscal year which succeeds the fiscal year in which the sale date of such Bonds occurred.

The proceeds of the Bonds required for the defeasance of obligations to be refunded or otherwise defeased, as specified in the Fifteenth Supplemental Ordinance, may be deposited in an escrow fund or account to be established pursuant to the Escrow Agreement.

The proceeds of the sale of the Bonds shall be used to pay all "Project Costs" as such term is defined in the Act, including, but without limitation, the establishment of the sinking fund reserve required by, and other funds permitted by, the General Ordinance, and the payment of the costs of the issuance of the Bonds.

Pursuant to the Act, it is determined in the Fifteenth Supplemental Ordinance, based on the report of the Director of Finance filed pursuant to the Act, that the pledged Amounts Available for Debt Service will be sufficient to comply with the rate covenant contained in the General Ordinance and also to pay all costs, expenses and payments required to be paid therefrom, in the order and priority stated in the General Ordinance.

The City covenants in the Fifteenth Supplemental Ordinance that, so long as any Bond shall remain unpaid, it will make payments or cause payments to be made out of the Sinking Fund established pursuant to the General Ordinance or any of the other Aviation Funds available therefor, at such times and in such amounts as shall be sufficient for the payment of the interest thereon and the principal thereof when due. Prior to approval of the Fifteenth Supplemental Ordinance by City Council, the City delivered to the Chief Clerk of City Council an opinion of the City Solicitor to the effect, *inter alia,* that the holders of the Bonds have no claim upon the taxing power or general revenues of the City nor any lien upon any of the property of the City other than the Pledged Amounts pledged for the Bonds.

The City covenants in the Fifteenth Supplemental Ordinance that it will make no investment or other use of the proceeds of the Bonds which would cause the Bonds to be "arbitrage bonds" under Section 148 of the Internal Revenue Code of 1986, as amended, and Treasury Regulations promulgated thereunder (the "Code"), and that the City will comply with the requirements of Section 148 of the Code throughout the term of the Bonds as more fully described in the determination of the Bond Committee. The Director of Finance is authorized to execute on behalf of the City a report of the issuance of the Bonds as required by Section 149(e) of the Code.

The Fifteenth Supplemental Ordinance provides, in the text of the Form of Bond included therein, that the Bonds shall be special obligations of the City payable solely from the pledged rentals, revenues and moneys and neither the credit nor the taxing power of the City is pledged for the payment of the principal of or interest on the Bonds, nor shall the Bonds be or be deemed to be a general obligation of the City. The Bonds together with all parity bonds of the City issued under the General Ordinance and all subsequent supplemental ordinances, shall be equally and ratably secured under the General Ordinance, to the extent set forth in the General Ordinance, by a pledge of Pledged Amounts which shall include Project Revenues defined to include revenues, rents, rates, tolls or other charges imposed and moneys received by or on behalf of the City from or in connection with the ownership and operation of the Airport System (exclusive of certain revenues as described in the General Ordinance), as more fully defined in the General Ordinance. The City covenants, so long as the Bonds shall remain outstanding, it will pay or cause to be paid from the pledged Amounts Available for Debt Service deposited in the Sinking Fund, and other amounts available therefor, the principal of, redemption premium, if any, and interest on the Bonds as the same shall become due and payable.

The Fifteenth Supplemental Ordinance authorizes the Director of Finance to execute and deliver a continuing disclosure agreement relating to the Bonds, meeting the requirements of Securities and Exchange Commission Rule 15c2-12(b)(5). The City covenants and agrees that it will comply with and carry out all of the provisions of such continuing disclosure agreement.

THE SIXTEENTH SUPPLEMENTAL ORDINANCE

The Sixteenth Supplemental Ordinance supplements the provisions of the General Ordinance. All capitalized and defined terms used in the following summary of the Sixteenth Supplemental Ordinance which are not otherwise defined in this Official Statement are defined as in the General Ordinance.

The Sixteenth Supplemental Ordinance provides that the City, through the Director of Finance, will publish notice of those amendments to the General Ordinance that become effective upon the consent of the Holders of at least sixty-seven percent (67%) of the Outstanding Bonds to all Holders upon the occurrence of the consent of at least sixty-seven percent (67%) of the Outstanding Bonds. The City, through the Director of Finance, will also publish notice of those amendments to the General Ordinance that become effective upon the consent of the Holders of one hundred percent (100%) of the Outstanding Bonds to all Holders upon the occurrence of the consent of one hundred percent (100%) of the Outstanding Bonds. Publication through the Electronic Municipal Market Access System (EMMA) or such other nationally recognized municipal securities information repository constitutes an acceptable mode of publication.

APPENDIX V

SUMMARY OF CERTAIN PROVISIONS OF THE AIRLINE AGREEMENT

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SUMMARY OF CERTAIN PROVISIONS OF THE AIRLINE AGREEMENT

In June 2015, the City approved an Airport-Airline Use and Lease Airline Agreement (the "Airline Agreement") which went into effect as of July 1, 2015, and is in effect until June 30, 2020, and thereafter subject to two one-year extensions (the "Term"). The Airline Agreement sets forth the operational and financial relationship between the City and the Airlines executing the Airline Agreement (the "Signatory Airlines"). Set forth below are summaries of certain provisions of the Airline Agreement. Such summaries do not purport to be complete and are qualified in their entirety by reference to the Airline Agreement, copies of which are available from the City.

DEFINITIONS

Any terms not specifically set forth in this Appendix shall have the meanings ascribed to them in the body of this Official Statement, in the Airline Agreement and in the Ordinances, if related thereto.

"Air Transportation Business" shall mean the carriage by aircraft of persons, cargo or property as a common airline for compensation or hire, or the carriage of mail, by aircraft, in commerce as defined in the Federal Aviation Act of 1958, as amended.

"Air Transportation Company" shall mean an entity conducting an Air Transportation Business at the Airport.

"Airline Equipment" shall mean those moveable trade fixtures, furniture and equipment located on or affixed to Airline's Leased Premises, or elsewhere at the Airport, purchased and/or constructed at the sole cost and expense of Airline which are considered the personal property of Airline.

"Airline Improvements" shall mean those fixtures and construction related additions, modifications and improvements located on or affixed to Airline's Leased Premises, or elsewhere at the Airport, which have been purchased and/or constructed at the sole cost and expense of Airline.

"Airline's Leased Premises" shall mean the areas of Airline Space that are directly leased to Airline under the Airline Agreement, together with Airline's Ramp Premises.

"Airline Revenues" shall mean all Rents, Additional Rents, fees and other operating revenues paid by Signatory Airlines and their Affiliates in the Airline Cost Centers under the Airline Agreement.

"Airline's Terminal Area Leased Premises" shall mean the total square footage in the Terminal Area attributable to an individual Signatory Airline in any given Fiscal Year during the Term of the Airline Agreement, which is the sum of the Airline's Exclusive Use, Preferential Use, and Joint Use Space.

"Airline Space" shall mean Exclusive Use Space, Preferential Use Space, Joint Use Space, and International Common Use Areas in the Terminal Area leased to any Airline, as same may be modified from time to time by the parties without formal amendment hereto.

"Airport Cost Centers" or "Cost Centers" shall mean collectively the following cost centers:

(a) "Airfield Area" or "Airfield Area Cost Center" shall include all existing and future City owned and operated airfield areas at the Airport;

(b) "Terminal Area" or "Terminal Area Cost Center" shall include the Airport passenger terminal buildings, including the areas available for use as baggage make-up, the sidewalk and curb adjacent to the landside of the terminal buildings, the boarding bridges and all pedestrian bridges connecting the terminal buildings with the landside vehicular parking garages, as such areas now exist or may be developed, extended or improved from time to time;

(c) "Ramp Area" or "Ramp Area Cost Center" shall mean those outside airport operations areas of the Airport designated for the Terminal Area consisting of the aircraft parking positions, ramp space and canopy space (and including any other equipment located on the Ramp Area that are owned by City and provided for the use by Air Transportation Companies);

(d) "Other Buildings and Areas" or "Other Buildings and Areas Cost Center" shall include those Airport facilities including but not limited to: airline, general aviation and corporate hangars; commissary; fueling facilities; industrial facilities, airline freight, express and mail handling facilities; the former hangars, renovated and improved by City in 1972 and the north and south international terminal aprons associated with the area formerly known as the Overseas Terminal; and certain non-airline facilities (including office, retail, warehouses, etc.) including any property purchased for indirect aviation purposes, such as concurrent commercial development as they now exist or may be developed, demolished, extended, expanded or improved from time to time;

(e) Northeast Philadelphia Airport; and

(f) "Outside Terminal Area" or "Outside Terminal Area Cost Center" shall include the roadway, hotel, service station, vehicular parking and car rental facilities appurtenant, adjacent to or used in connection with the Airport as they now exist or may be developed, extended, or improved from time to time.

Such Airport Cost Centers shall be used for purposes of accounting for Project Revenues and Airport Expenses and for calculating and adjusting certain rentals, fees and charges as specified in the Airline Agreement:

"Airport Expenses" shall mean the Operating Expenses, Debt Service, and Fund Requirements associated with the operation of the Airport System or any part thereof for any Fiscal Year.

"Annual Budget" shall mean the capital and operating budget and annual rates and charges report of the Airport System, prepared and adopted by City for each Fiscal Year during the Term of the Airline Agreement.

"Bond Documents" shall mean those contracts, Airline Agreements, certificates, resolutions or other materials, ancillary to and including the Ordinances, evidencing the issuance of Airport Revenue Bonds.

"Capital Expenditure" shall mean: (i) a single item of equipment, vehicles, nonrecurring capital outlays, and other items of personal property purchased, leased or constructed at a cost to City, net of PFC, AIP, Federal, State, or City's Discretionary Account funds, in excess of five hundred thousand dollars ($500,000), which City determines to have a useful life in excess of five (5) years, which, along with all other equipment, vehicles, non-recurring capital outlays, and other items of personal property exceed an aggregate net cost of five million dollars ($5,000,000) in any Fiscal Year or (ii) any other Capital Improvement Project(s) purchased, leased, or constructed at an aggregate cost to City, net of PFC, AIP, Federal, State, or City's Discretionary Account funds, in excess of one million two hundred fifty thousand dollars ($1,250,000) in any Fiscal Year, which City determines to have a useful life of more than five (5) years.

"Capital Improvement Project" shall mean a project under which an asset is purchased, leased or constructed by City for the Airport System which City determines to have a useful life of more than five (5) years and a capital cost of more than ten thousand dollars ($10,000).

"Code" shall mean the Internal Revenue Code of 1986, as amended, supplemented, or replaced, and the regulations and rulings issued thereunder.

"Default Rate" shall mean five percent (5%) plus the Prime Rate.

"Fiscal Year" shall mean the twelve-month period commencing on July 1st of each year, or such other twelve-month period as may be established by City from time to time.

"Majority in Interest" or "MII" shall mean the mechanism by which the Signatory Airlines may disapprove a Capital Expenditure, as set forth in the Airline Agreement.

"Majority in Interest Formula" or "MII Formula" shall mean the formulas as set forth in the Airline Agreement.

"Non-Airline Revenues" shall mean all rentals, charges, fees, ground handling fees, user charges, concession and other operating revenues received by or on behalf of City from the operation of the Airline Cost Centers or any part thereof; but excluding however, all Airline Revenues, and also excluding all gifts, grants, reimbursements, restricted funds or payments received from governmental units or public agencies or any other source, passenger facility charges, customer facility charges, and federal, state or City subsidies or incentives deposited in the Aviation Capital Fund.

"Ordinances" shall mean the Amended and Restated General Airport Revenue Ordinance, approved June 16, 1995, as amended and supplemented.

"Rents" shall mean all Terminal Rentals, Ramp Area Rentals, Other Fees, other rents, charges, fines, costs, reimbursements, penalties, taxes, late charges, liquidated damages, and interest of all types and of all nature that Signatory Airline is required to pay pursuant to this Airline Agreement.

BOND DOCUMENTS AND FLOW OF FUNDS

Subordination to Ordinances

The Airline Agreement and all rights granted to the Signatory Airlines thereunder are expressly subordinated and subject to the lien and provisions of the pledges, transfer, hypothecation or assignment made by the City in the Ordinances. The City expressly reserves the right to make such pledges and grant such liens and enter into covenants as it may deem necessary or desirable to secure and provide for the payment of Airport Revenue Bonds, including the creation of reserves therefore, provided that the City shall not take any actions that would be inconsistent with the terms and conditions of the Airline Agreement. Notwithstanding the foregoing, nothing contained in the Airline Agreement shall be deemed a pre-approval by an Airline of a future Ordinance that changes the terms and conditions of the Airline Agreement.

Internal Revenue Code of 1986

With respect to Airport Revenue Bonds that may be issued, the interest on which is intended to be excludable from gross income of the holders for Federal income tax purposes under the Code, the Signatory Airlines agree to not act, or fail to act (and will immediately cease and desist from any action, or failure to act) with respect to the use of the Airline Leased Premises, if the act or failure to act may cause the City to be in noncompliance with the provisions of the Code, and the Signatory Airlines will not take or persist in any action or omission which may cause the interest on such Airport Revenue Bonds to be includable in the gross income of the holders thereof for Federal income tax purposes.

SEC Rule 15c2-12

Upon request of the City, the Signatory Airlines shall provide the City with such information with respect to the Signatory Airlines as the City may request in writing in order for the City to comply with its continuing disclosure obligations under Securities and Exchange Commission ("SEC") Rule 15c2-12 (the "Rule"), as it may be amended from time to time. To the extent that an Airline is an "Obligated Party" with respect to the Airport Revenue Bonds as per the Rule, the Signatory Airline agrees to execute the Continuing Disclosure Agreement incident to such financing. Currently, American Airlines is the only "Obligated Party".

Bond Documents Flow of Funds

All Project Revenues shall be deposited, maintained and paid as set forth in the Bond Documents.

Establishment of Bond Redemption and Improvement Account, O&M Account and Discretionary Account

The Signatory Airlines and the City have agreed under the Airline Agreement to establish the Bond Redemption and Improvement Account, O&M Account and Discretionary Account pursuant to the Ordinances and the Airline Agreement, which accounts shall have the uses described in the Official Statement under the caption "SECURITY FOR THE BONDS – Flow of Funds and Application of Project Revenues".

RATES, FEES AND CHARGES

Terminal Rentals, Ramp Area Rentals and Landing Fee Rates

For purposes of developing rentals, fees and charges under the Airline Agreement, the Airport System has been divided into the following cost centers to which all revenues, expenses, and debt service on Airport Revenue Bonds are allocated. Under the Airline Agreement, each Signatory Airline agrees that, pursuant to the Authorizing Legislation (as defined therein), which includes the General Ordinance, the City shall impose, charge and collect and the Signatory Airline agrees to pay such rental charges and fees as may be required pursuant to the Authorizing Legislation (including the Rate Covenant).

Terminal Area. Revenues from the Terminal Building consist of concession revenues, Terminal Rentals, International Common Use Area Revenues, and miscellaneous revenues.

Airfield Area, Other Buildings and Areas, and Northeast Airport. Revenues from the Airfield Area, Other Buildings and Areas, and Northeast Airport consist of landing fees, site rentals, fuel flowage fees, concession fees and other direct charges.

Ramp Areas. Revenues from the Ramp Areas consist of charges for use of aircraft parking ramps.

Outside Terminal Area. Outside Terminal Area revenues comprise net parking revenues, certain rental car revenues, certain ground transportation revenues, and revenues from a hotel.

Airport Services. Revenues from Airport Services consist of revenues not directly accounted for in the other Cost Centers. Expenses associated with Airport Services are allocated to the other Cost Centers based on the proportionate share of Operating Expenses and Non-Airline Revenues directly allocated to each such Cost Center.

Adjustment of Rentals, Fees, and Charges

The Terminal Rentals, Ramp Premises Rate and Landing Fee Rate are subject to adjustment as of July 1, 2016, and each July 1 thereafter during the Term of the Airline Agreement. Signatory Airline rates, fees and charges will be recalculated annually for each Fiscal Year and made effective as of July 1 of each such Fiscal Year.

Terminal Rentals. Terminal Rentals are calculated to ensure that all debt service requirements, operating expenses and fund requirements allocable to the Terminal Building are recovered according to a cost-center residual rate calculation methodology. The Terminal Area Requirement for each Fiscal Year is the amount in the Annual Budget equal to: (1) the sum of (a) Operating Expenses, Debt Service and Fund Requirements allocated to the Terminal Area Cost Center and (b) any deficit or credit estimated in the Annual Budget for operation of the Terminal Area during the then-current Fiscal Year or any adjustment carried over from the preceding Fiscal Year to reflect any difference between the actual versus estimated surplus or deficit, less (2) the sum of (a) all Non-Airline Revenues allocated to the Terminal Area Cost Center, and (b) the Airline Revenue Allocation allocated to the Terminal Area Cost Center.

For use of the international terminal facilities, the City collects from the Signatory Airlines Federal Inspection Services ("FIS") Area charges, departure and arrival gate use fees, and space rentals for leased areas. The FIS Area includes space for customs, border protection, and immigration inspection offices; inbound baggage and international baggage claim facilities; and a pro rata share of public space.

FIS Area charges are calculated by dividing the total cost of FIS space by the number of deplaning passengers using the FIS facilities.

Ramp Area Rentals. Ramp Area Rentals are calculated to ensure that all debt service requirements, operating expenses, and fund requirements allocable to the Ramp Area are recovered according to a cost-center residual rate calculation methodology. The Ramp Area Requirement for each Fiscal Year is the amount in the Annual Budget equal to: (1) the sum of (a) Debt Service and Fund Requirements allocated to the Ramp Area Cost Center and (b) any deficit or credit estimated in the Annual Budget for operation of the Ramp Area during the then-current Fiscal Year or any adjustment carried over from the preceding Fiscal Year to reflect any difference between the actual versus estimated surplus or deficit, less (2) all Non-Airline Revenues allocated to the Ramp Area Cost Center.

Landing Fee Rates. Signatory Airline Landing Fees are calculated according to a modified cost-center residual rate calculation methodology to recover the net costs of the Airfield Area, Other Buildings and Areas, and Northeast Airport cost centers. The Airfield Area Requirement is equal to: (1) the sum of (a) Operating Expenses, Debt Service and Fund Requirements for the Fiscal Year allocable to the Airfield Area, Other Buildings and Areas and Northeast Airport, and (b) any deficit or credit estimated in the Annual Budget for operation of the Airfield Area, the Other Buildings and Areas and the Northeast Airport during the then-current Fiscal Year or any adjustment carried over from the preceding Fiscal Year to reflect any difference between the actual versus estimated surplus or deficit, less (2) the sum of (a) all Non-Airline Revenues allocated to the Airfield Area, Other Buildings and Areas and Northeast Airport, (b) all Non-Signatory Landing Fees, and (c) the Airline Revenue Allocation allocable to the Airfield Area, if any.

Annual Adjustment. The Aviation Operating Fund budget is developed annually by the City to provide sufficient appropriations for the payment of all operating expenses and debt service payments projected for the Airport System for the ensuing Fiscal Year and satisfaction of the Rate Covenant. The budget, together with all other operating budgets of the City, is submitted by the Mayor to City Council for adoption at least 90 days prior to the beginning of such Fiscal Year. On the basis of the Aviation Operating Fund budget and the applicable Rate Covenants prescribed in the General Ordinance, the City computes the rates and charges which it regards as necessary for the ensuing Fiscal Year. Under the Airline Agreement, the City must provide such computations to the Signatory Airlines no less than 45 days, and hold a consultation meeting no less than 30 days, prior to implementation of the adjustment.

Mid-Year Adjustment. Additional provisions permit adjustments during any Fiscal Year in the event the City estimates a substantial (10% or more) decrease in revenues or increase in expenses. Under the Airline Agreement, the City must hold a consultation meeting with the Signatory Airlines no less than 30 days prior to any such mid-year adjustment.

Accommodation of Signatory Airlines

The Airline Agreement provides the basis for the use and lease of the Airport’s terminals, aprons, and other areas. Under the Airline Agreement, to promote the high utilization of gates, all gates are being leased on a preferential-use basis or assigned on a common-use basis.

The Airline Agreement contains provisions obligating each Signatory Airline to accommodate the proposed operations of another airline at such Signatory Airline’s preferential-use premises under certain circumstances if (i) the City cannot accommodate the existing or proposed operations of the requesting airline (either a Signatory Airline or Non-Signatory Airline) on a common-use gate, and (ii) the use by the requesting airline would not interfere with a Signatory Airline’s operations.

If the requesting airline’s operations cannot be accommodated at a Signatory Airline’s preferential-use premises, the Airline Agreement also provides for the reallocation of leased gates and other terminal areas to provide facilities for lease to a requesting airline or for additional common-use gates. The City may reallocate a portion of any Signatory Airline’s leased premises according to specified procedures if such Signatory Airline does not maintain certain minimum use requirements. The minimum use requirement ranges between 4.25 departures per gate per day for a Signatory Airline leasing only one gate to 5.75 departures per gate per day for Signatory Airlines leasing more than three (3) gates.

Passenger Facility Charges

The City has the right to assess Airline passengers a PFC for the use of the Airport and the Signatory Airlines shall collect on behalf of and remit to City on a timely basis any such charges, including but not limited to holding any charges collected by the Signatory Airline, pending remittance to the City, in trust for the benefit of the City. The Signatory Airlines shall remit PFC to the City, and must include an itemized statement with its payment supporting the calculation of the PFC remittance.

Default Rates

If the City shall, at any time or times, accept any payments of Rents after they shall become due and payable, such acceptance shall not excuse subsequent delays, or constitute, or be construed to be a waiver of any or all of City's rights hereunder. The Signatory Airlines shall pay interest at the Default Rate on all payments which are unpaid as of the first day after the day on which such payment is due to the City, or such other maximum allowable interest rate should the Default Rate violate any applicable laws or regulations.

CAPITAL EXPENDITURES

Majority-in-Interest Approval of Capital Expenditures

Beginning July 1, 2015, under the Airline Agreement, the Signatory Airlines approved $173.25 million in Capital Expenditures and, as described in the Official Statement under the caption "SOURCES OF PROJECT REVENUES UNDER THE GENERAL ORDINANCE." The City has executed the Airline Agreement with the fourteen airlines at the Airport: Air Canada, Alaska Airlines, American Airlines, British Airways, Delta Airlines, FedEx, Frontier Airlines, JetBlue Airways, Lufthansa, Qatar Airways, Southwest Airlines, Spirit Airlines, United Airlines and UPS. The Airline Agreement is scheduled to expire on June 30, 2020, and is thereafter subject to two one-year extension options. The Airline Agreement does not limit or restrict the right of the City to implement Capital Improvement Projects within the Airport System at any time; the lack of approval of the Capital Improvement Project by a Majority-in-Interest of the Signatory Airlines ("MII Approval") after consultation with the City (other than certain exempted projects that do not require approval) prevents the City from including the cost of such Capital Improvement Project in the applicable rate base for the Airline Cost Centers during the Term of the Airline Agreement.

Under the Airline Agreement, Capital Expenditures are deemed approved by the Signatory Airlines unless they are specifically disapproved by a Majority-in-Interest. For any additional projects affecting only Terminal Area rentals, fees, and charges, Majority-in-Interest is defined as no less than 50% plus one of the number of Eligible Signatory Passengers Signatory Airlines representing more than 50% of the Signatory Passenger Airline Enplaned Passengers, including passengers from Affiliates for the most recently reported twelve-month period for which data are available. For any additional projects that will impact the rates, fees and charges of the Airfield, the Other Buildings and Areas, or the Philadelphia Northeast Airport Cost Centers, Majority-in-Interest is defined as no less than (i) 50% plus one of the number of Eligible Signatory Airlines, and (ii) more than 50% of the Total Maximum Landed Weight for the most recently reported twelve-month period for which data are available.

Application of Airport Expenses for Capital Improvement Projects

Approved Projects. The Airport Expenses for Capital Improvement Projects that are exempt from a Signatory Airline Consultation Process or deemed approved by the Eligible Signatory Airlines shall be included in the applicable Airline Cost Center rate base upon the Substantial Completion Date of such Capital Improvement Project.

Disapproved Projects. The Airport Expenses for Capital Expenditures or Capital Improvement Project funding variances that are disapproved by the Eligible Signatory Airlines may not be included in an Airline Cost

Center rate base unless and until a subsequent Signatory Airline Consultation Process approves the Capital Expenditure or funding variance, as applicable.

Bankruptcy

Notwithstanding any provision contained in the Airline Agreement and to the extent consistent with Federal bankruptcy law, any party to the Airline Agreement which seeks protection under the Federal bankruptcy code, or is currently operating under the protection of the Federal bankruptcy code, herein called "Debtor", shall be prohibited from conveying its interest under the Airline Agreement to any other entity without prior approval of City. In the event that such a Debtor intends to assume the Airline Agreement, or assume and assign the Airline Agreement pursuant to 11 U.S.C. Section 365, Bankruptcy-Executory Contracts and Unexpired Leases, the Debtor shall be required to immediately cure any and all defaults and provide adequate assurance of future performance under the Airline Agreement which shall include, but not be limited to (i) adequate assurance of the reliability of the proposed source for the rentals, fees and charges due under the Airline Agreement upon the assumption of the Airline Agreement, and (ii) adequate assurance that all other consideration due under the Airline Agreement shall be forthcoming upon the assumption of the Airline Agreement.

DEFAULT AND RIGHTS AND REMEDIES UPON DEFAULT

Events of Default

The occurrence of any of the following, subject to rights to cure and other terms and conditions set forth in the Airline Agreement, shall constitute a material breach of the Airline Agreement by the Signatory Airline and an Event of Default:

(a) Signatory Airline's abandonment or constructive abandoning of the Signatory Airline's Terminal Area Leased Premises as determined in the Airline Agreement;

(b) Signatory Airline's failure to pay any Monthly Rents, Passenger Facility Charge payments or any other payment due under the Airline Agreement;

(c) Signatory Airline's failure to pay, when due, any installment of Additional Rents or other sum required to be paid under the Airline Agreement;

(d) Signatory Airline's failure to observe and comply with the requirements of the Airport Security Program, Environmental Compliance, Insurance Requirements, Local Requirements, and provisions of the Airline Agreement regarding Certification of Non-Indebtedness and the Northern Ireland Provision where such failure continues for thirty (30) days, after notice thereof to the Signatory Airline; provided, however, that if the nature of the default is such that the same cannot reasonably be cured within such thirty (30) day period, the Signatory Airline shall not be deemed to be in default if the Signatory Airline shall within such period commence such cure and thereafter diligently prosecutes the same to completion, and advises the City of same, but in no event for longer than sixty (60) days after notice to Signatory Airline without the consent of the City, or for such shorter cure period as may be specifically prescribed in the Airline Agreement;

(e) Signatory Airline's failure to observe and perform any other provision or covenant of the Airline Agreement to be observed or performed by Signatory Airline, where such failure continues for thirty (30) days, after notice thereof to the Signatory Airline; provided, however, that if the nature of the default is such that the same cannot reasonably be cured within such thirty (30) day period, the Signatory Airline shall not be deemed to be in default if the Signatory Airline shall within such period commence such cure and thereafter diligently prosecutes the same to completion, and advises the City of same, but in no event for longer than sixty (60) days after notice to Signatory Airline without the consent of the City;

(f) The filing of a petition by or against Signatory Airline for relief in bankruptcy or insolvency or for its reorganization or for the appointment pursuant to any local, state or federal bankruptcy or insolvency law of a receiver or trustee of any part of Signatory Airline's property; or, an assignment by Signatory Airline for the benefit of creditors; or the taking possession of the property of Signatory Airline by any local, state or federal governmental officer or agency or court-appointed official for the dissolution or liquidation of Signatory Airline or for the operating, either temporarily or permanently, of Signatory Airline's business, provided, however, that if any such action is commenced against Signatory Airline the same shall not constitute a default if Signatory Airline files a motion to dismiss such action within thirty (30) days after its filing and such action is dismissed or discharged within ninety (90) days after the action against Airline was commenced;

(g) Any failure occurring after City has sent two (2) notices within a twelve (12) month period; and, in any event, more than six (6) Events of Default in any twelve (12) month period will render the next default an automatic Event of Default; and

(h) A default by a Signatory Airline which is not cured within the applicable cure period in any other Airline Agreement entered into with City relating to the Airport System.

Remedies of City

Upon the occurrence of any Event of Default set forth in the Airline Agreement, the City, at its option, subject to the terms and conditions set forth in the Airline Agreement, may take all or any of the following actions:

(a) Perform any obligations of Signatory Airline which Signatory Airline has failed to perform in a timely manner, after reasonable notice, in which case Signatory Airline shall pay to the City, upon receipt of invoice, the City's costs incurred therefor, plus a fifteen percent (15%) administrative fee,

(b) Terminate the Airline Agreement and, until such time as the City has relet the space leased to another Airline thereunder, recover (i) all unpaid Rents which have accrued prior to the date of said Event of Default and which are then due and payable, (ii) damages for the period following the termination of the Term, based upon any and all amounts which Signatory Airline would have been obligated to pay for the balance of the Term, and the City may declare such sums to be immediately due and payable, and (iii) any and all sums due under the Airline Agreement;

(c) The City, at any time after the occurrence of any Event of Default whether or not the Airline Agreement has been terminated as aforesaid, may reenter and repossess, the Signatory Airline's Terminal Area Leased Premises and any part thereof with or without process of law, provided no undue force shall be used, and shall have the option, but not the obligation either in its own name, as agent for Signatory Airline if the Airline Agreement has not been terminated or for its own behalf if the Airline Agreement has been terminated, to give rights and privileges to or lease to other Airlines or users, all or any part of the Signatory Airline's Terminal Area Leased Premises;

(d) In the event that the City elects to terminate the Airline Agreement, the City at its option, may serve notice upon Signatory Airline that the Airline Agreement and the then unexpired Term hereof shall cease and expire and become absolutely void on the date specified in such notice,

(e) Signatory Airline further expressly authorizes and empowers (which power is coupled with an interest) the City, upon the occurrence of an Event of Default, to exercise the remedy of self-help with respect to the Proprietary Equipment and to enter upon the Signatory Airline's Terminal Area Leased Premises, distrain upon and remove therefrom all inventory, equipment, machinery, trade fixtures and personal property of whatsoever kind or nature, whether owned by Signatory Airline or by others;

(f) The City shall have the right of injunction, in the event of a breach or default or threat thereof by Signatory Airline of any of the Airline Agreements, conditions, covenants or terms hereof, to restrain the same and the right to invoke any remedy allowed by law or in equity;

(g) The Signatory Airlines expressly waive the benefits of all laws, now or hereafter in force, exempting any of Signatory Airline's property on the Signatory Airline's Terminal Area Leased Premises or elsewhere from distraint, levy or sale in any legal proceedings taken by the City to enforce any rights under the Airline Agreement.

(h) The City shall have the right, upon any uncured Event of Default thereunder, to cancel the security badge access to the Airport of all employees of Signatory Airline.

Neither the Airline Agreement nor any rights or privileges thereunder shall be an asset of a Signatory Airline in any bankruptcy, insolvency or reorganization proceeding. If the City shall not be permitted to terminate the Airline Agreement because of the provisions of the United States Bankruptcy Code, the Signatory Airline or any trustee for it shall, within fifteen (15) days upon request by the City to the Bankruptcy Court, assume or reject the Airline Agreement, provided however, that such Signatory Airline may not assume the Airline Agreement unless all defaults thereunder shall have been cured, the City shall have been compensated for any monetary loss resulting from such default and the City shall be provided with adequate assurance of full and timely performance of all provisions, terms and conditions of the Airline Agreement on the part of Signatory Airline to be performed.

City's Right to Cure

The City may perform, in whole or in part, any obligation of which a Signatory Airline is in default, either prior to (provided such Signatory Airline is not in the process of curing its default) or following the maturation of such default into an Event of Default, and such Signatory Airline shall pay on demand as Rents any expenditures made pursuant hereto and the amount of any obligations incurred in connection herewith, plus per annum interest at the Default Rate from the date of any such expenditure, and the City's performance shall not constitute a cure of such default by such Signatory Airline.

DAMAGE OR DESTRUCTION

Partial Damage

If all or any portion of the Signatory Airline's Leased Premises (but specifically excluding any Airline Improvements, Airline Equipment, or personal property, fixtures, equipment or other installations provided by a Signatory Airline in and to the Signatory Airline's Leased Premises), is partially damaged by fire, explosion, the elements, act(s) of war or terrorism, or other casualty, but not rendered untenantable, the same will be repaired with due diligence by City at its own cost and expense, to the extent and only to the extent of insurance proceeds received by City, and there shall be no abatement of Signatory Airline payments, provided, however, that if any damage is caused by the act or omission of a Signatory Airline, its Affiliates, sublessees, agents, or employees, such Signatory Airline shall be responsible at its expense for making the necessary repairs for which it is responsible as approved by the City. If a Signatory Airline fails to make the necessary repairs in a timely manner as determined by the City, then the Signatory Airline shall reimburse the City for the costs and expenses incurred in such repair, plus a fifteen percent (15%) administrative fee.

Damage Suitable for Repair

If damages referred to in the Airline Agreement shall be so extensive as to render part or all of the Signatory Airline's Leased Premises untenantable, but capable of being repaired in one hundred and twenty (120) days, the same shall be repaired with due diligence by the City at its own cost and expense, to the extent and only to the extent of insurance proceeds received by City, and Signatory Airline payments payable under the Airline Agreement shall abate, in proportion to the portion of the Signatory Airline's Leased Premises rendered untenantable, from the time of such damage until such time as the Signatory Airline's Leased Premises are fully restored and certified by the City's engineers as ready for occupancy; provided, however, that if any damage is caused by the act or omission of a Signatory Airline, its Affiliates, sublessees, agents, or employees, such Signatory Airline shall be responsible, at its expense, for making the necessary repairs as approved by the City. If the Signatory Airline fails to make the necessary repairs for which it is responsible in a timely manner as determined by the City, then the Signatory Airline shall reimburse the City for the costs and expenses incurred in such repair, plus a fifteen percent (15%) administrative fee.

Complete Damage

In the event the Signatory Airline's Leased Premises are completely destroyed by fire, explosion, the elements, act(s) of war or terrorism, or other casualty or so damaged that they are untenantable and cannot be replaced except after more than one hundred and twenty (120) days, the City shall be under no obligation to repair, replace, and reconstruct said Signatory Airline's Leased Premises and such Signatory Airline payments shall abate as of the time of such damage or destruction and shall cease until such time as said Signatory Airline's Leased Premises are fully restored, or until the City provides substitute facilities, acceptable to the Signatory Airline, for use by the Signatory Airline. If within twelve (12) months or such other time as may be mutually agreed to by the City and the Signatory Airline after the time of such damage or destruction said Signatory Airline's Leased Premises shall not have been repaired or reconstructed, and the City has not supplied substitute facilities, acceptable to the Signatory Airline, the Signatory Airline may give City notice of its intention to cancel this Airline Agreement in its entirety as of the date of such damage or destruction.

Airline Acts or Omissions

Notwithstanding the foregoing, if said Signatory Airline's Leased Premises are completely destroyed as a result of the negligence of Signatory Airline or its Affiliates, sublessees, agents, or employees, applicable fees and charges shall not abate and City may, in its discretion, require Signatory Airline to repair and reconstruct said Signatory Airline's Leased Premises within twelve (12) months or such other time as may be mutually agreed to by City and Signatory Airline of such destruction and pay the costs therefor; or City may repair and reconstruct said Signatory Airline's Leased Premises within twelve (12) months of such destruction and Signatory Airline shall be responsible for reimbursing City for the costs and expenses incurred in such repair, plus a fifteen percent (15%) administrative fee.

INSURANCE AND INDEMNIFICATION

Insurance Requirements

During the Term and any extension thereof, each Signatory Airline shall, at its sole cost and expense, obtain and maintain in full force and effect, and promptly pay all premiums, when due, for, the following types of insurance: (1) All Risk Property Insurance, (2) Boiler and Machinery, (3) Automotive Liability, (4) Worker's Compensation and Employer's Liability, (5) General Liability Insurance/Aviation Liability, (6) Aircraft Liability, (7) Contractors', (8) Commercial General Liability insurance policy for premises operations, products/completed operations, personal and advertising injury, broad form property damage, contractual liability, (9) Automotive liability insurance covering liability arising from the ownership, maintenance, and/or use of all owned, non-owned and hired, leased and rented trucks and/or automobiles, (10) Professional liability insurance shall be maintained when any architect or engineer performs, directly or indirectly, work for or on behalf of Signatory Airline at Airport or involving Signatory Airline's operations and/or the Total Airline Leased Premises, (11) Environmental Impairment or Pollution Liability Insurance, and (12) Liquor Liability Insurance if alcoholic beverages are served or sold on the Signatory Airline's Leased Premises, liquor liability insurance coverage shall be maintained in an amount of $5,000,000; provided, however, that no alcoholic beverages shall be served or sold unless approved in writing by the City.

Indemnification

General. To the fullest extent provided by law, each Signatory Airline shall indemnify, defend and hold harmless the City, its officials, agents, employees, representatives, successors and assigns (the "Indemnified Parties") from and against all liability for claims, suits, causes of action, liabilities, losses, costs and expenses (including reasonable attorneys' fees), for which the Indemnified Parties may be held liable by reason of injury (including death) to any person (including Signatory Airline's employees) or damage to any property whatsoever kind or nature except to the extent caused by City's sole negligence or willful misconduct of every kind relating to or arising in connection with: (1) Any act or negligent omission of the Signatory Airline, its agents, directors, officers, employees, contractors or sublessees arising out of or in any manner connected with the Total Airline Leased Premises (including, but not limited to, Signatory Airline's use or occupancy of Total Airline Leased Premises, ingress or egress to Total Airline Leased Premises, access or use of parking lots, walkways or common areas and any alterations or work done in or about the Total Airline Leased Premises by the Signatory Airline or on the Signatory Airline's behalf); (2) Any breach, violation or nonperformance of any covenant, term or condition of this Airline Agreement to be performed or observed by the Signatory Airline, or of any restrictions of record or of any applicable laws, ordinances, statues, rules, codes or regulations, affecting the Total Airline Leased Space, Proprietary Equipment (unless such Proprietary Equipment was purchased or constructed by City in contravention of such applicable laws and/or regulations) or Airline Equipment, or any part of the Total Airline Leased Space, Proprietary Equipment or Airline Equipment, or the ownership, occupancy or use thereof; (3) Any encroachment of improvements made by Signatory Airline upon property adjoining the Total Airline Leased Premises.

Said indemnification does not apply to City-maintained equipment or property, unless caused by Signatory Airline's negligence. Nothing herein shall prevent the Signatory Airline(s) to which City has tendered a matter covered by any indemnification provision of its/their Airline Agreement from joining as a defendant any Air Transportation Company to the extent permitted by applicable law.

Condemnation / Eminent Domain

Total Taking. During the Term of the Airline Agreement, if the whole, or, if such a portion of the Signatory Airline's Leased Premises as will materially interfere with Signatory Airline's conduct of its business be taken or acquired or be sold to a government in lieu thereof under threat of such a taking (each event hereinafter called a "taking") for any public or quasi-public use or purpose under any power of eminent domain or condemnation, then, and in any of such events, the Term of the Airline Agreement shall cease and terminate on the date that title vests in the condemning authority pursuant to such proceedings or under such sale in lieu thereof. Signatory Airline shall pay all required payments apportioned to the date of such termination and shall promptly vacate the Signatory Airline's Leased Premises. All sums representing prepaid rents, fees or charges, if any, shall be promptly repaid to Signatory Airline.

Partial Taking. If the taking of the Signatory Airline's Leased Premises is not the whole and not such a portion as will materially interfere with Signatory Airline's conduct of its business, then the Airline Agreement shall expire as to that portion of the Signatory Airline's Leased Premises taken but shall continue in full force and effect as to that portion of the Signatory Airline's Leased Premises not taken.

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APPENDIX VI

FORM OF APPROVING OPINION OF CO-BOND COUNSEL

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[FORM OF OPINION OF CO-BOND COUNSEL]

_________, 2017

Re: $__________ City of Philadelphia, Pennsylvania
Airport Revenue and Refunding Bonds Consisting of:
$________ Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT)
$________ Airport Revenue and Refunding Bonds, Series 2017B (AMT)

To the Purchasers of the Within-Described Series 2017 Bonds:

We have acted as Co-Bond Counsel in connection with the authorization, issuance and sale by the City of Philadelphia, Pennsylvania (the "City") of its Airport Revenue and Refunding Bonds consisting of $_________ Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) (the "Series 2017A Bonds"); and $_________ Airport Revenue and Refunding Bonds, Series 2017B (AMT) (the "Series 2017B Bonds" together with the Series 2017A Bonds, the "Series 2017 Bonds"). The Series 2017 Bonds are being issued under and pursuant to the First Class City Revenue Bond Act of the Commonwealth of Pennsylvania, Act No. 234 of October 18, 1972, P.L. 955, as amended (the "Act"), and the Amended and Restated General Airport Revenue Bond Ordinance approved June 16, 1995 (the "Original Ordinance"), as supplemented and amended, including, by the Fifteenth Supplemental Ordinance (Bill No. 161001 approved by the Mayor on February 8, 2017) (the "Fifteenth Supplemental Ordinance") and the Sixteenth Supplemental Ordinance (Bill No. 170308 approved by the Mayor on May 17, 2017) (the "Sixteenth Supplemental Ordinance" together with the Fifteenth Supplemental Ordinance and the Original Ordinance, the "General Ordinance"). The proceeds of the Series 2017 Bonds, along with other available monies, are being issued: (i) to finance certain capital improvements to the Airport System; (ii) currently refund certain outstanding commercial paper notes, (iii) currently refund all of the City's outstanding Airport Revenue Bonds, Series 2007A, and all of the City's outstanding Airport Revenue Refunding Bonds, Series 2007B, and a portion of the Series 2017B Bonds will be used to currently refund all of the City's outstanding Airport Revenue Refunding Bonds, Series 2009A, (iv) provide for capitalized interest on a portion of the Series 2017 Bonds, (v) fund a deposit to the Parity Sinking Fund Reserve Account and (vi) pay the costs of issuance of the Series 2017 Bonds.

The Series 2017 Bonds are issued in fully registered form and are dated, are in such denominations, bear interest, mature and are subject to redemption prior to maturity as set forth in the form of the respective Series 2017 Bonds. The Series 2017 Bonds are payable as to principal or redemption price at the principal Philadelphia corporate trust office of U.S. Bank National Association (successor fiscal agent to Wachovia Bank, National Association) (the "Fiscal Agent").

The Series 2017 Bonds, together with outstanding issues of Airport Revenue Bonds and all other Airport Revenue Bonds hereafter issued for the purposes and upon the terms and conditions prescribed in the Ordinance are equally and ratably secured to the extent provided in the Ordinance, as the case may be, and the Act, by a pledge of Pledged Amounts.

As Co-Bond Counsel for the City, we have examined the Act and such Constitutional provisions, statutes and regulations of the Commonwealth of Pennsylvania and such other records and documents of the City as we deemed necessary for the purposes of this opinion. We have also examined the Original Ordinance, the Fifteenth Supplemental Ordinance and the Sixteenth Supplemental Ordinance; the transcript of proceedings filed by the City with the Court of Common Pleas of Philadelphia, together with evidence of the filing thereof, and certain statements, certifications, opinions, agreements, reports, affidavits, receipts and other documents which we have considered relevant, including, without limitation, an opinion of the City Solicitor of the City and a certification of officials of the City having responsibility for issuing the Series 2017 Bonds given pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and regulations promulgated thereunder. We have also examined a fully executed and authenticated Series 2017A Bond and Series 2017B Bond and have assumed that all Series 2017 Bonds have been similarly executed and authenticated.

In rendering the opinion set forth below, we have relied upon the genuineness, accuracy and completeness of all documents, records, certifications and other instruments we have examined, including, without limitation, the authenticity of all signatures appearing thereon.

On the basis of the foregoing, we are of the opinion that:

1. Under the Constitution and laws of the Commonwealth of Pennsylvania, including the Act, the Original Ordinance, the Fifteenth Supplemental Ordinance and the Sixteenth Supplemental Ordinance, the City is authorized to issue the Series 2017 Bonds, and the terms thereof comply with the requirements of the Act and the General Ordinance.

2. The Fifteenth Supplemental Ordinance and the Sixteenth Supplemental Ordinance have been duly enacted and the covenants and agreements of the City contained therein, including, specifically but not by way of limitation, the pledge of the Pledged Amounts, as therein described, constitute legal, valid and binding obligations of the City with respect to the Series 2017 Bonds and are enforceable against the City in accordance with their respective terms except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws, or by legal or equitable principles affecting creditors' rights generally.

3. The Series 2017 Bonds have been duly authorized and issued and are valid and binding obligations of the City, are enforceable against the City in accordance with their terms and are limited obligations of the City, payable solely out of Pledged Amounts, as provided in the General Ordinance for the timely payment of the principal thereof, at their respective maturities or redemption dates, and the interest thereon when due.

4. The Series 2017 Bonds do not pledge the credit or taxing power, nor create any debt or charge against the tax or general revenues of the City, nor do they create any lien against

any property of the City other than the revenues, monies and funds pledged in the General Ordinance.

5. The issuance of the Series 2017 Bonds does not cause the debt of the City to exceed Constitutional debt limitations.

6. Interest (including accrued original issue discount) on the Series 2017A Bonds is not includable in gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions. The opinion set forth in the preceding sentence is subject to the condition that the City comply with all applicable federal income tax law requirements that must be satisfied subsequent to the issuance of the Series 2017A Bonds in order that interest thereon continues to be excluded from gross income. Failure to comply with certain of such requirements could cause the interest on the Series 2017A Bonds to be so includable in gross income retroactive to the date of issuance of the Series 2017A Bonds. The City has covenanted to comply with all such requirements. Interest on the Series 2017A Bonds is not treated as an item of tax preference under Section 57 of the Code for purposes of the individual and corporate alternative minimum taxes; however, under the Code, to the extent that interest on the Series 2017A Bonds is a component of a corporate holder's "adjusted current earnings," a portion of that interest may be subject to the corporate alternative minimum tax.

Interest on the Series 2017B Bonds is not includable in gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions, except as to interest on any Series 2017B Bond during any period such Series 2017B Bond is held by a person who is a "substantial user" of the facilities financed or refinanced with the Series 2017B Bond proceeds or a "related person," as those terms are used in Section 147(a) of the Code. The opinion set forth in the preceding sentence is subject to the condition that the City comply with all applicable federal income tax law requirements that must be satisfied subsequent to the issuance of the Series 2017B Bonds in order that interest thereon continues to be excluded from gross income. Failure to comply with certain of such requirements could cause the interest on the Series 2017B Bonds to be so includable in gross income retroactive to the date of issuance of the Series 2017B Bonds. The City has covenanted to comply with all such requirements. Interest on the Series 2017B Bonds is treated as an item of tax preference for purposes of the alternative minimum tax imposed on individuals and corporations.

Under Treasury Regulation Section 1.150-1(c)(3), the City has the ability to treat bonds that would otherwise be treated as one issue as separate issues for certain purposes of the Code if each series could otherwise qualify as a tax-exempt bond issue. The Series 2017A Bonds and the Series 2017B Bonds are being treated as separate issues for certain purposes of the Code; that is, the Series 2017A Bonds are being treated as traditional governmental bonds and the Series 2017B Bonds are being treated as qualified airport private activity bonds. Under Treasury Regulation Section 1.150-1(c)(3), however, the Series 2017A Bonds and the Series 2017B Bonds may not be treated as separate issues for certain other provisions of the Code, including those provisions relating to arbitrage and arbitrage rebate. As such, failure to comply with certain requirements under the Code relating to the Series 2017A Bonds could cause the interest on the Series 2017B Bonds to be includable in gross income retroactive to the date of issuance of the Series 2017 Bonds, and failure to comply with certain requirements under the Code relating to the Series 2017B Bonds could cause the interest on the Series 2017A Bonds to be includable in gross income retroactive to the date of issuance of the Series 2017 Bonds.

We express no opinion regarding other federal tax consequences relating to the Series 2017 Bonds or the receipt of interest thereon.

7. Under the laws of the Commonwealth of Pennsylvania, as enacted and construed on the date hereof, the Series 2017 Bonds, and the interest thereon are free from taxation for state and local purposes within the Commonwealth of Pennsylvania, but such exemption does not extend to gift, estate, succession or inheritance taxes or any other taxes not levied or assessed directly on the Series 2017 Bonds or the interest thereon.

We express no opinion with respect to, and assume no responsibility for, the accuracy or completeness of the Preliminary Official Statement or the Official Statement prepared in respect of the offering of the Series 2017 Bonds, and make no representation that we have independently verified the contents thereof.

Finally, we call to your attention that the rights of the holders of the Series 2017 Bonds and the enforceability thereof and of the General Ordinance may be subject to bankruptcy, insolvency, reorganization, moratorium and other laws or equitable principles affecting creditors' rights generally.

Very truly yours,

APPENDIX VII

FORM OF CONTINUING DISCLOSURE AGREEMENT

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FORM OF CONTINUING DISCLOSURE AGREEMENT

$692,530,000
CITY OF PHILADELPHIA, PENNSYLVANIA
AIRPORT REVENUE AND REFUNDING BONDS
SERIES 2017A (NON-AMT) AND SERIES 2017B (AMT)

This Continuing Disclosure Agreement (the "Agreement") dated as of December 20, 2017 by and between the City of Philadelphia, Pennsylvania (the "City") and Digital Assurance Certification, L.L.C., as dissemination agent (the "Dissemination Agent") and acknowledged by American Airlines, Inc. ("American Airlines") in connection with the issuance and sale by the City of $692,530,000 aggregate principal amount of Airport Revenue and Refunding Bonds, Series 2017, consisting of $138,630,000 Airport Revenue and Refunding Bonds, Series 2017A (Non-AMT) and $553,900,000 Airport Revenue and Refunding Bonds, Series 2017B (AMT) (together, the "Bonds").

The Bonds are being issued and secured under the provisions of The First Class City Revenue Bond Act, P.L. 955, Act No. 234 of the General Assembly of the Commonwealth of Pennsylvania approved October 18, 1972 (the "Act"); the Amended and Restated General Airport Revenue Bond Ordinance, approved June 16, 1995 (Bill No. 950282), as amended and supplemented (the "General Ordinance"), the Fifteenth Supplemental Ordinance (Bill No. 161001), approved by the Mayor on February 8, 2017 (the "Fifteenth Supplemental Ordinance") and the Sixteenth Supplemental Ordinance (Bill No. 170308), approved by the Mayor on May 17, 2017 (the "Sixteenth Supplemental Ordinance" and together with the Fifteenth Supplemental Ordinance and the General Ordinance sometimes hereinafter referred to, collectively, as the "Ordinances"). Certain matters concerning the Bonds have been determined pursuant to the Ordinances by the Bond Committee of the City, consisting of the Mayor, the City Controller and the City Solicitor ("Bond Committee"), in an authorization for the Bonds dated December 15, 2017 ("Bond Authorization", and together with the Act and the Ordinances, the "Authorizing Acts").

In consideration of the mutual covenants, promises and agreements contained herein and intending to be legally bound hereby, the parties hereto agree as follows:

ARTICLE I

The Undertaking

Section 1.1. Purpose. This Agreement is being executed and delivered by the City solely to assist the Underwriters in complying with subsection (b)(5) of the Rule.

Section 1.2. Annual Financial Information. (a) Commencing with the Fiscal Year ending June 30, 2017, the Disclosure Representative shall deliver to the Dissemination Agent no later than February 28, 2018, and no later than each succeeding February 28 thereafter, Annual Financial Information with respect to each Fiscal Year of the City. The Dissemination Agent shall promptly upon receipt thereof file the Annual Financial Information with EMMA (as defined herein).

(b) The City agrees to use its reasonable best efforts to cause any Obligated Person (to the extent such entity is not otherwise required under federal law to do so) to make annual financial information available as required by the Rule. The City takes no responsibility for the accuracy or completeness of such filings by any Obligated Person. The City's obligations under this paragraph are limited to and satisfied by the City's transmitting a notice to such Obligated Person that it has become an Obligated Person under this Disclosure Agreement, by enclosing a copy of this Agreement and the Rule, and by requesting that such person transmit back to the City an acknowledgement and acceptance of such person's obligations under the Rule with regard to the Bonds. The City agrees to notify the Dissemination Agent of any changes in the identity of any Obligated Person.

(c) The Dissemination Agent shall provide, in a timely manner, notice of any failure of the City to provide the Annual Financial Information by the date specified in subsection (a) hereof.

Section 1.3. Audited Financial Statements. If not provided as part of Annual Financial Information by the date required by Section 1.2(a) hereof, the Disclosure Representative shall provide Audited Financial Statements, when and if available, to the Dissemination Agent. The Dissemination Agent shall promptly upon the receipt thereof file such Audited Financial Statements with EMMA.

Section 1.4. Notice Events. (a) If a Notice Event occurs, the Disclosure Representative shall provide through the Dissemination Agent, in a timely manner not in excess of ten (10) business days after the occurrence of such Notice Event, notice of such Notice Event to EMMA.

(b) Any notice of a defeasance of the Bonds shall state whether the Bonds have been escrowed to maturity or to an earlier redemption date and the timing of such maturity or redemption.

(c) Each Notice Event notice relating to the Bonds shall include the CUSIP numbers of the Bonds to which such Notice Event notice relates or, if the Notice Event notice relates to all bond issues of the City including the Bonds, such Notice Event notice need only include the CUSIP number of the City.

(d) The Dissemination Agent shall promptly advise the City whenever, in the course of performing its duties as Dissemination Agent under this Agreement, the Dissemination Agent has actual notice of an occurrence which, if material, would require the City to provide notice of a Notice Event hereunder; provided, however, that the failure of the Dissemination Agent so to advise the City shall not constitute a breach by the Dissemination Agent of any of its duties and responsibilities under this Agreement.

Section 1.5. Additional Information. Nothing in this Agreement shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Agreement or any other means of communication, or including any other information in any Annual Financial Information or notice of Notice Event hereunder, in addition to that which is required by this Agreement. If the City chooses to do so, the City shall have no obligation under this Agreement to update such additional information or include it in any future Annual Financial Information or notice of a Notice Event hereunder.

Section 1.6. Additional Disclosure Obligations. The City acknowledges and understands that other state and federal laws, including but not limited to the Securities Act of 1933 and Rule 10b-5 promulgated under the Securities Exchange Act of 1934, may apply to the City and that, under some circumstances, compliance with this Agreement without additional disclosures or other action may not fully discharge all duties and obligations of the City under such laws.

ARTICLE II

Operating Rules

Section 2.1. Reference to Other Filed Documents. It shall be sufficient for purposes of Section 1.2 hereof if the City or the Obligated Person provides Annual Financial Information by specific reference to documents (i) available to the public on the MSRB Internet Web site (currently, www.emma.msrb.org) or (ii) filed with the SEC. The provisions of this Section shall not apply to notices of Notice Events pursuant to Section 1.4 hereof.

Section 2.2. Submission of Information. Annual Financial Information may be set forth or provided in one document or a set of documents, and at one time or in part from time to time.

Section 2.3. Dissemination Agent. The City has designated the Dissemination Agent as its agent to act on its behalf in providing or filing notices, documents and information as required of the City under this Agreement. The City may revoke or modify such designation. Upon any revocation of such designation, the City shall comply with its obligation to provide or file notices, documents and information as required under this Agreement or may designate another agent to act on its behalf.

Section 2.4. Transmission of Notices, Documents and Information. (a) Unless otherwise required by the MSRB, all notices, documents and information provided by the MSRB shall be provided to the MSRB's Electronic Municipal Markets Access ("EMMA") system, the current Internet Web address of which is www.emma.msrb.org.

(b) All notices, documents and information provided on EMMA shall be provided in an electronic format as prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

Section 2.5. Fiscal Year. (a) The City's current Fiscal Year begins July 1 and ends June 30, and the City shall promptly file a notification on EMMA, through the Dissemination Agent, of each change in its Fiscal Year.

(b) Annual Financial Information shall be provided at least annually notwithstanding any Fiscal Year longer than 12 calendar months.

ARTICLE III

Effective Date, Termination, Amendment and Enforcement

Section 3.1. Effective Date; Termination. (a) This Agreement shall be effective upon the issuance of the Bonds.

(b) The City's and the Dissemination Agent's obligations under this Agreement shall terminate upon a legal defeasance, prior redemption or payment in full of all of the Bonds.

Section 3.2. Amendment. (a) This Agreement may be amended, by written agreement of the parties, without the consent of the holders of the Bonds, if all of the following conditions are satisfied: (1) such amendment is made in connection with a change in circumstances that arises from a change in legal (including regulatory) requirements, a change in law (including rules or regulations) or in interpretations thereof, or a change in the identity, nature or status of the City or the type of business conducted thereby, (2) this Agreement as so amended would have complied with the requirements of the Rule as of the date of this Agreement, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances, (3) the City shall have delivered to the Dissemination Agent an opinion of Counsel, addressed to the City and the Dissemination Agent, to the same effect as set forth in clause (2) above, (4) the City shall have delivered to the Dissemination Agent an opinion of Counsel or a determination by an entity, in each case unaffiliated with the City (such as bond counsel or the Dissemination Agent), addressed to the City and the Dissemination Agent, to the effect that the amendment does not materially impair the interests of the holders of the Bonds, and (5) the Disclosure Representative shall have delivered copies of such opinion(s) and amendment to the Dissemination Agent. Such amendment shall be promptly filed by the Dissemination Agent on EMMA and sent to each Registered Owner.

(b) This Agreement may be amended, by written agreement of the parties, without the consent of the holders of the Bonds, if all of the following conditions are satisfied: (1) an amendment to the Rule is adopted, or a new or modified official interpretation of the Rule is issued, after the effective date of this Agreement which is applicable to this Agreement, (2) the City shall have delivered to the Dissemination Agent an opinion of Counsel, addressed to the City and the Dissemination Agent, to the effect that performance by the City and the Dissemination Agent under this Agreement as so amended will not result in a violation of the Rule and (3) the Disclosure Representative shall have delivered copies of such opinion and amendment to the Dissemination Agent. Such amendment shall be promptly filed by the Dissemination Agent on EMMA and sent to each Registered Owner.

(c) This Agreement may be amended by written agreement of the parties, without the consent of the holders of the Bonds, if all of the following conditions are satisfied: (1) the City shall have delivered to the Dissemination Agent an opinion of Counsel, addressed to the City and the Dissemination Agent, to the effect that the amendment is permitted by rule, order or other official pronouncement, or is consistent with any interpretive advice or no-action positions of Staff, of the SEC, and (2) the Disclosure Representative shall have delivered copies of such opinion and amendment to the Dissemination Agent. Such amendment shall be promptly filed by the Dissemination Agent on EMMA and sent to each Registered Owner.

(d) To the extent any amendment to this Agreement results in a change in the type of financial information or operating data provided pursuant to this Agreement, the first Annual Financial Information provided thereafter shall include a narrative explanation of the reasons for the amendment and the impact of the change in the type of operating data or financial information being provided.

(e) If an amendment is made pursuant to Section 3.2(a) hereof to the accounting principles to be followed by the City in preparing its financial statements, the Annual Financial Information for the Fiscal Year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. Such comparison shall include a qualitative and, to the extent reasonably feasible, quantitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information.

Section 3.3. Benefit; Third-Party Beneficiaries; Enforcement. (a) The provisions of this Agreement shall constitute a contract with and inure solely to the benefit of the holders from time to time of the Bonds, except that beneficial owners of Bonds shall be third-party beneficiaries of this Agreement. The provisions of this Agreement shall create no rights in any person or entity except as provided in this subsection (a) and in subsection (b) of this Section.

(b) The obligations of the City to comply with the provisions of this Agreement shall be enforceable by any holder of Outstanding Bonds. The holders' rights to enforce the provisions of this Agreement shall be limited solely to a right, by action in mandamus or for specific performance, to compel performance of the City's obligations under this Agreement. In consideration of the third-party beneficiary status of beneficial owners of Bonds pursuant to subsection (a) of this Section, beneficial owners shall be deemed to be holders of Bonds for purposes of this subsection (b).

(c) Any failure by the City or the Dissemination Agent to perform in accordance with this Agreement shall not constitute a default under the Authorizing Acts, and the rights and remedies provided by the Authorizing Acts upon the occurrence of a default shall not apply to any such failure.

(d) This Agreement shall be construed and interpreted in accordance with the laws of the Commonwealth, and any suits and actions arising out of this Agreement shall be instituted in a court of competent jurisdiction in the Commonwealth; provided, however, that to the extent this Agreement addresses matters of federal securities laws, including the Rule, this Agreement shall be construed in accordance with such federal securities laws and official interpretations thereof.

ARTICLE IV

Definitions

Section 4.1. Definitions. The following terms used in this Agreement shall have the following respective meanings:

(1) "Airport System" means the Philadelphia International Airport and the Northeast Philadelphia Airport, both of which are currently owned by the City and operated by the Division of Aviation of the City's Department of Commerce.

(2) "Annual Financial Information" means, collectively, (i) a copy of the Comprehensive Annual Financial Report ("CAFR"), which contains the Audited Financial Statements, (ii) the information regarding amendments to this Agreement required pursuant to Sections 3.2(d) and (e) of this Agreement, and (iii) to the extent such information is not contained in the CAFR, an update of the information in the Official Statement contained in - Table 3 - Annual PFCs, Table 5 – Historical Enplaned Passengers, Table 6 – Historical Total Enplaned Passengers

by Airline, Table 9 – Summary of Historical Project Revenues and Expenses of the Airport System, and Appendix II – Financial Statements of the Division of Aviation. As set forth in clause (i) above, Annual Financial Information shall include Audited Financial Statements, if available, or Unaudited Financial Statements, if Audited Financial Statements are not available.

Annual Financial Information shall be delivered at least annually pursuant to Section 1.2(a) hereof. In connection with Section 4.1(2), it is the City's intention to satisfy all or a portion of the obligations set forth therein by submitting to EMMA (A) its CAFR, (B) Financial Statements of the Division of Aviation, (C) to the extent not otherwise updated in the CAFR or the Financial Statements of the Division of Aviation, annual updates to the Tables specified in clause (iii) above. If at any time the City deletes, for the purposes of a then-current Appendix, certain financial information or operating date from such Appendix as attached to the Official Statement that is included in one of the Tables specified above, such deleted information will be submitted separately from the updated Appendix.

When such descriptions include information that no longer can be generated because the operations to which it related have been materially changed or discontinued, a statement to that effect shall be provided in lieu of such information. Any Annual Financial Information containing modified financial information or operating data shall explain, in narrative form, the reasons for the modification and the impact of the modification on the type of financial information or operating data being provided.

(3) "Audited Financial Statements" means the annual financial statements, if any, of the City and the Division of Aviation, audited by such auditor as shall then be required or permitted by Commonwealth law or the City Charter. Audited Financial Statements shall be prepared in accordance with GAAP; provided, however, that pursuant to Sections 3.2(a) and (e) hereof, the City may from time to time, if required by federal or Commonwealth legal requirements, modify the accounting principles to be followed in preparing its financial statements. The notice of any such modification required by Section 3.2(a) hereof shall include a reference to the specific federal or Commonwealth law or regulation describing such accounting principles, or other description thereof.

(4) "City Charter" means the Home Rule Charter authorized by the General Assembly in the First Class City Home Rule Act (Act of April 21, 1949, P.L. 665, Section 17) and adopted by the voters of the City, as amended and supplemented.

(5) "Commonwealth" means the Commonwealth of Pennsylvania.

(6) "Counsel" means any nationally recognized bond counsel or counsel expert in federal securities laws.

(7) "Disclosure Representative" means the Director of Finance of the City, the City Treasurer or such other official or employee of the City as the Director of Finance or the City Treasurer shall designate in writing to the Dissemination Agent.

(8) "GAAP" means generally accepted accounting principles as prescribed from time to time for governmental units by the Governmental Accounting Standards Board, the Financial Accounting Standards Board, or any successor to the duties and responsibilities of either of them.

(9) "MSRB" means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, or any successor thereto or to the functions of the MSRB contemplated by this Agreement.

(10) "Notice Event" means any of the following events with respect to the Bonds, whether relating to the City or otherwise:

(i) principal and interest payment delinquencies;

(ii) non-payment related defaults, if material;

(iii) unscheduled draws on debt service reserves reflecting financial difficulties;

(iv) unscheduled draws on credit enhancements reflecting financial difficulties;

(v) substitution of credit or liquidity providers, or their failure to perform;

(vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices of determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;

(vii) modifications to rights of Bondholders, if material;

(viii) Bond calls, if material, and tender offers;

(ix) defeasances;

(x) release, substitution, or sale of property securing repayment of Bonds, if material;

(xi) rating changes;

(xii) bankruptcy, insolvency, receivership or similar event of the City;

(xiii) the consummation of a merger, consolidation, or acquisition involving the Airport or the sale of all or substantially all of the assets of the Airport, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and

(xiv) appointment of a successor or additional trustee or the change of name of a trustee, if material.

(11) "Obligated Person" means the City and any airline or other entity using the Airport System pursuant to an agreement (for more than one year from the date in question) that includes debt service on the Bonds as part of the calculation of rates and charges, under which agreement such airline or other entity has paid amounts equal to at least 20% of the Project Revenues (as defined in the Ordinances) of the Airport System for each of the two prior Fiscal Years of the Airport System.

(12) "Official Statement" means the Official Statement dated December 15, 2017 of the City relating to the Bonds.

(13) "Registered Owner" or "Registered Owners" means, for so long as the Bonds shall be registered in the name of the Securities Depository or its nominee, and includes, for the purposes of this Agreement, the owners of book-entry credits in the Bonds evidencing an interest in the Bonds; provided, however, that the Dissemination Agent shall have no obligation to provide notice hereunder to owners of book-entry credits in the Bonds except those who have filed their names and addresses with the Dissemination Agent for the purposes of receiving notices or giving direction under this Agreement.

(14) "Rule" means Rule 15c2-12 promulgated by the SEC under the Securities Exchange Act of 1934 (17 CFR Part 240, §240.15c2-12), as amended, as in effect on the date of this Agreement, including any official interpretations thereof issued either before or after the effective date of this Agreement which are applicable to this Agreement.

(15) "SEC" means the United States Securities and Exchange Commission.

(16) “Securities Depository” shall mean The Depository Trust Company, New York, New York, or its nominee, Cede & Co., or any successor thereto.

(17) “Unaudited Financial Statements” means the same as Audited Financial Statements, except that they shall not have been audited.

(18) “Underwriters” means the financial institutions named on the cover of the Official Statement.

ARTICLE V

Miscellaneous

Section 5.1. Duties, Immunities and Liabilities of the Dissemination Agent. The Dissemination Agent shall have only such duties under the Agreement as are specifically set forth in this Agreement, and the City agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of tis powers and duties hereunder, including the costs and expenses (including attorneys’ fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent’s negligence or willful misconduct in the performance of its duties hereunder. The obligations of the City under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Bonds.

Section 5.2. Counterparts. This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, THE CITY OF PHILADELPHIA, PENNSYLVANIA, has caused this Disclosure Agreement to be executed by the Director of Finance and DIGITAL ASSURANCE CERTIFICATION, L.L.C., as Dissemination Agent, has caused this Disclosure Agreement to be executed by one of its authorized officers, all as of the day and year first above written.

CITY OF PHILADELPHIA

By: ______________________________

Name: Rob Dubow

Title: Director of Finance

DIGITAL ASSURANCE CERTIFICATION, L.L.C., as Dissemination Agent

By: ______________________________

Name:

Title:

ACKNOWLEDGEMENT AND AGREEMENT:

American Airlines, Inc. ("American Airlines") hereby acknowledges its current status as an Obligated Person hereunder and the City's undertaking to provide information in accordance with the Rule as described herein. So long as it is an Obligated Person, American Airlines agrees to make available, within 120 days after the end of its fiscal year (December 31), with respect to the information regarding American Airlines set forth in the Official Statement under the caption "THE AIRPORT SYSTEM – AIRPORT ACTIVITY AND SIGNATORY AIRLINES" such information regarding itself and its operations as is required by the Rule.

AMERICAN AIRLINES, INC.

By:______________________________

Name:

Title:

APPENDIX VIII

BOOK-ENTRY ONLY SYSTEM

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BOOK-ENTRY ONLY SYSTEM

General

The information set forth herein concerning The Depository Trust Company, New York, New York ("DTC") and the book-entry system described below has been extracted from materials provided by DTC for such purpose, is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the City, the Fiscal Agent or the Underwriters. The websites referenced below are included for reference only and the information contained therein is not incorporated by reference in this Official Statement.

DTC will act as securities depository for the 2017 Bonds under a book-entry system with no physical distribution of the 2017 Bonds made to the public. The 2017 Bonds will initially be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee), or such other name as may be requested by an authorized representative of DTC. One fully-registered bond certificate will be issued for each maturity of the 2017 Bonds, each in the principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of "AA+". The DTC rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of the 2017 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2017 Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2017 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the 2017 Bonds, except in the event that use of the book-entry system for the 2017 Bonds is discontinued.

To facilitate subsequent transfers, all 2017 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of 2017 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee does not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2017 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2017 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of 2017 Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the 2017 Bonds, such as redemptions, defaults and proposed amendments to the bond documents. For example, Beneficial Owners of 2017 Bonds may wish to ascertain that the nominee holding the 2017 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Fiscal Agent and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2017 Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity of the 2017 Bonds to be redeemed.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the 2017 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the 2017 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal and redemption price of, and interest on, the 2017 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the City or the Fiscal Agent, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Direct and Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Direct and Indirect Participants and not of DTC (or its nominee), the City or the Fiscal Agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and redemption price of, and interest on, the 2017 Bonds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City or the Fiscal Agent, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

THE CITY, THE FISCAL AGENT AND THE UNDERWRITERS CANNOT AND DO NOT GIVE ANY ASSURANCES THAT DTC WILL DISTRIBUTE TO ITS PARTICIPANTS OR THAT DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL DISTRIBUTE TO BENEFICIAL OWNERS OF THE 2017 BONDS (A) PAYMENTS OF PRINCIPAL OR REDEMPTION PRICE OF, OR INTEREST ON, THE 2017 BONDS, OR (B) CONFIRMATION OF OWNERSHIP INTERESTS IN THE 2017 BONDS, OR (C) REDEMPTION OR OTHER NOTICES, OR THAT THEY WILL DO SO ON A TIMELY BASIS, OR THAT DTC, DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL SERVE AND ACT IN THE MANNER DESCRIBED IN THIS OFFICIAL STATEMENT. THE CURRENT "RULES" APPLICABLE TO DTC ARE ON FILE WITH THE SECURITIES AND EXCHANGE COMMISSION AND THE CURRENT "PROCEDURES" OF DTC TO BE FOLLOWED IN DEALING WITH ITS PARTICIPANTS ARE ON FILE WITH DTC.

NONE OF THE CITY, THE FISCAL AGENT OR THE UNDERWRITERS WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC PARTICIPANTS, BENEFICIAL OWNERS OR OTHER NOMINEES OF SUCH BENEFICIAL OWNERS FOR: (A) SENDING TRANSACTION STATEMENTS; (B) MAINTAINING, SUPERVISING OR REVIEWING THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY DTC PARTICIPANT OR OTHER NOMINEES OF SUCH BENEFICIAL OWNERS; (C) PAYMENT OR THE TIMELINESS OF PAYMENT BY DTC TO ANY DTC PARTICIPANT, OR BY ANY DTC PARTICIPANT OR OTHER NOMINEES OF BENEFICIAL OWNERS TO ANY BENEFICIAL OWNER, OF ANY AMOUNT DUE IN RESPECT OF THE PRINCIPAL OR REDEMPTION PRICE OF, OR INTEREST ON, THE 2017 BONDS; (D) DELIVERY OR TIMELY DELIVERY BY DTC TO ANY DTC PARTICIPANT, OR BY ANY DTC PARTICIPANT OR OTHER NOMINEES OF BENEFICIAL OWNERS TO ANY BENEFICIAL OWNERS, OF ANY NOTICE (INCLUDING NOTICE OF REDEMPTION) OR OTHER COMMUNICATION WHICH IS REQUIRED TO BE GIVEN TO HOLDERS OR OWNERS OF THE 2017 BONDS; (E) THE SELECTION OF THE

BENEFICIAL OWNERS TO RECEIVE PAYMENT IN THE EVENT OF ANY PARTIAL REDEMPTION OF 2017 BONDS; OR (F) ANY ACTION TAKEN BY DTC OR ITS NOMINEE AS THE REGISTERED OWNER OF THE 2017 BONDS.

Discontinuation of Book-Entry Only System

DTC may discontinue providing its services as depository with respect to the 2017 Bonds at any time by giving reasonable notice to the City or the Fiscal Agent. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The City may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered.

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APPENDIX IX

SPECIMEN MUNICIPAL BOND INSURANCE POLICY

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MUNICIPAL BOND INSURANCE POLICY

ISSUER: Policy No: -N

BONDS: $ in aggregate principal amount of Effective Date:

Premium: $

ASSURED GUARANTY MUNICIPAL CORP. ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the

United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. has caused this Policy to be executed on its behalf by its Authorized Officer.

ASSURED GUARANTY MUNICIPAL CORP.

By ________________________________
Authorized Officer

A subsidiary of Assured Guaranty Municipal Holdings Inc.
1633 Broadway, New York, N.Y. 10019
(212) 974-0100