



# City of Chicago



F2019-30

Office of the City Clerk

## Document Tracking Sheet

**Meeting Date:** 5/29/2019

**Sponsor(s):** Dept./Agency

**Type:** Communication

**Title:** Notification of sale regarding General Obligation Bonds, Series 2019A with Official Statement and Bond Purchase of Agreement

**Committee(s) Assignment:**



DEPARTMENT OF FINANCE  
CITY OF CHICAGO

April 10, 2019

Andrea M. Valencia  
City Clerk  
121 North LaSalle Street  
City Hall - Room 107  
Chicago, Illinois 60602

RECEIVED  
2019 APR 10 AM 11:32  
OFFICE OF THE  
CITY CLERK  
AL

RE: \$721,980,000 Aggregate Principal Amount of City of Chicago  
General Obligation Bonds, Series 2019A (the "Bonds")

Dear Ms. Valencia:

Attached is the Notification of Sale which is required to be filed with your office pursuant to Section 12 of the Bond Ordinance adopted by the City Council of the City of Chicago (the "City Council") on March 13, 2019. Executed copies of the Official Statement and the Bond Purchase of Agreement are also included.

Please direct this filing to the City Council.

Very truly yours,

Carole L. Brown  
Chief Financial Officer

STATE OF ILLINOIS )  
 ) SS  
COUNTY OF COOK )

2019 APR 10 AM 11:32

## **NOTIFICATION OF SALE**

**CITY OF CHICAGO  
\$721,980,000  
General Obligation Bonds, Series 2019A**

To: The City Council of the City of Chicago

Please be advised that responsive to authority contained in an Ordinance (the "Ordinance") adopted by the City Council (the "City Council") of the City of Chicago (the "City") on March 13, 2019, authorizing the issuance of up to \$850,000,000 aggregate principal amount of general obligation bonds of the City, plus original issue discount, a Bond Purchase Agreement dated March 26, 2019 (the "Bond Purchase Agreement"), providing for the sale of \$721,980,000 aggregate principal amount of General Obligation Bonds, Series 2019A (the "Bonds"), was entered into by me as the Chief Financial Officer of the City, with the concurrence of the Acting Chairman of the Committee on Finance of the City Council of the City, and the purchasers thereof named below (the "Underwriters"). The Bonds are being issued pursuant to the terms of a trust indenture dated as of April 1, 2019 (the "Indenture"), by and between the City and Amalgamated Bank of Chicago, Chicago, Illinois, as Trustee, Bond Registrar and Paying Agent for the Bonds (the "Trustee").

The Bonds were sold at a purchase price equal to \$772,078,292.95 (which represents the aggregate principal amount of the Bonds less an Underwriters' discount of \$4,925,631.15 plus original issue premium of \$55,023,924.10). The Underwriters for the Bonds are Barclays Capital Inc., Cabrera Capital Markets, LLC, IFS Securities, Inc., Mischler Financial Group, Inc., North South Capital LLC, Ramirez and Co., Inc., and Rice Financial Products Company. The compensation (including all fees) of \$4,925,631.15 being paid to the Underwriters in connection with the sale of the Bonds represents less than five percent (5%) of the aggregate principal amount of the Bonds.

Capitalized terms used herein without definition shall have the meanings assigned to such terms in the Ordinance.

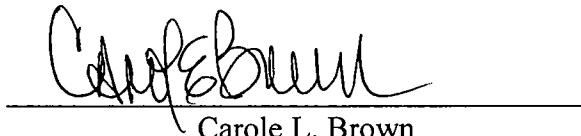
The proceeds of the 2019A Bonds will be used to (i) pay a portion of the costs of the 2019A Projects; (ii) retire all currently outstanding commercial paper notes of the City; (iii) fund certain capitalized interest on the 2019A Bonds; and (iv) pay costs of issuance of the 2019A Bonds.

Attached hereto as Exhibits 1 through 3, respectively, are executed copies of the Bond Purchase Agreement, the Official Statement dated March 26, 2019 and the Indenture pursuant to which, the Bonds are being issued.

Pursuant to Section 12 of the Ordinance, the undersigned hereby makes the following determinations: (a) the aggregate principal amount of the Bonds is \$721,980,000 and the series designation of the Bonds and principal amount of the Bonds are set forth in the first paragraph hereof, (b) the Bonds are issued as Current Interest Bonds in denominations of \$5,000 or any integral multiple thereof, none of which are sold as Direct Purchase Bonds, Capital Appreciation Bonds or Convertible Bonds, (c) the Bonds mature and are subject to redemption as set forth in Schedule I attached hereto, (d) the principal amounts and interest rates on the Bonds are set forth in Schedule I attached hereto, (e) the specific maturities, series and amounts of the Outstanding Indebtedness to be paid with proceeds of Bonds issued for Refunding Purposes, and interest on which is to be paid with proceeds of the Bonds and the date on and price or amount at which such Outstanding Indebtedness or interest thereon shall be paid is set forth in Schedule II attached hereto, (f) no proceeds of the Bonds have been used to reimburse the Corporate Fund of the City for amounts expended therefrom in connection with the payment of debt service relating to any Outstanding Indebtedness (g) none of the Bonds are insured, (h) the Underwriters of the Bonds and the compensation paid thereto are as set forth above in the second paragraph hereof, and such compensation does not exceed five percent (5%) of the principal amount of the Bonds, (i) the Bonds are issued in book-entry form; the book entry depository is The Depository Trust Company, (j) the sale price of the Bonds is as set forth in the second paragraph of this Notification of Sale, and such price with respect to the Bonds is not less than 85 percent (85%) of the principal amount of the Bonds, (k) the Trustee shall serve as Bond Registrar and Paying Agent, and (l) provisions relating to the transfer or exchange of Bonds are set forth in the Indenture.

Pursuant to Section 7 of the Bond Ordinance, the amount of taxes to be levied for the Bonds in each year will be less than the levy of taxes specified in Section 7 of the Bond Ordinance and I have determined, pursuant to the Ordinance, to abate the excess levy of taxes not necessary for the purpose of payment of the principal of and interest on the Bonds, as specified, together with the annual tax levy requirements for the payment of the principal and interest on the Bonds, in the Notification of Tax Abatement filed concurrently with the City Clerk, a copy of which is attached hereto as Schedule III.

Respectfully submitted as of this 10<sup>th</sup> day of April, 2019.



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Carole L. Brown  
Chief Financial Officer

Notification of Sale  
Signature of Chief Financial Officer

**EXHIBIT 1**

**BOND PURCHASE AGREEMENT**

**BOND PURCHASE AGREEMENT**

**\$721,980,000  
CITY OF CHICAGO  
General Obligation Bonds,  
Series 2019A**

**March 26, 2019**

City of Chicago  
Office of the City Comptroller  
121 North LaSalle Street, 7<sup>th</sup> Floor  
Chicago, Illinois 60602  
Attention: Chief Financial Officer

Ladies and Gentlemen:

The undersigned, Barclays Capital Inc. (the "Representative"), on behalf of itself and the other underwriters listed below (collectively, the "Underwriters"), hereby offers to enter into this Bond Purchase Agreement (the "Agreement") with the City of Chicago (the "City"), for the purchase by the Underwriters, and sale by the City, of all but not less than all of \$721,980,000 of the City's General Obligation Bonds, Series 2019A (the "2019A Bonds"). This offer is made subject to the acceptance by the City, evidenced by the signature of a duly authorized officer of the City in the space provided below, on or before 9:00 P.M., Chicago time on the date hereof, and upon such acceptance this Agreement shall be in full force and effect in accordance with its terms and shall be binding on the City and the Underwriters.

The Representative is duly authorized, and hereby represents and warrants that it is duly authorized, to act as Representative of the Underwriters and to execute this Agreement and has full authority to take such action as it may deem advisable with respect to all matters pertaining to this Agreement. Each Underwriter hereby severally represents to the City that it is registered and in good standing under the Securities Exchange Act of 1934, as amended (the "1934 Act"), as a municipal securities dealer.

The primary role of the Underwriters is to purchase the 2019A Bonds, for resale to investors, in an arm's-length commercial transaction between the City and the Underwriters. The Underwriters have financial and other interests that differ from those of the City.

Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Preliminary Official Statement, as defined herein.

1. Agreement to Sell and Purchase.

(1) Upon the terms and conditions and based upon the representations, warranties and covenants set forth herein, the Underwriters, jointly and severally, hereby agree to purchase from the City and the City hereby agrees to sell to the Underwriters, all (but not less than all) of the 2019A Bonds at a price equal to \$772,078,292.95 which represents the aggregate principal amount of the 2019A Bonds less an Underwriters' discount of \$4,925,631.15 and plus original issue premium of \$55,023,924.10). The 2019A Bonds shall have the dated date, maturity dates, optional and mandatory sinking fund redemption provisions and shall bear interest at the rates set forth in Schedule I hereto and being further described in the final Official Statement of the City (as defined below), relating to the 2019A Bonds.

(2) It shall be a condition to the City's obligation to sell and deliver the 2019A Bonds that all the 2019A Bonds be purchased and paid for by the Underwriters at the Closing (as defined in Section 7 hereof) and a condition to the Underwriters' obligation to purchase and pay for the 2019A Bonds that all 2019A Bonds be issued, sold and delivered by the City at the Closing. The Representative confirms that the Underwriters have offered the 2019A Bonds to the public at a public offering on or before the date of this Agreement at the offering price or prices set forth under "Terms of Bonds" contained in Schedule I.

(3) *Establishment of Issue Price.* The Representative, on behalf of the Underwriters, agrees to assist the City in establishing the issue price of the 2019A Bonds and shall execute and deliver to the City at Closing an "issue price" or similar certificate, together with the supporting pricing wires or equivalent communications, substantially in the form attached hereto as Exhibit F with such modifications as may be appropriate or necessary, in the reasonable judgment of the Representative, the City and Co-Bond Counsel (as defined in Section 10(1)(iii) hereof), to accurately reflect, as applicable, the sales price or prices or the initial offering price or prices to the public of the 2019A Bonds.

Except as otherwise set forth in Exhibit F, the City will treat the first price at which 10% of each maturity of the 2019A Bonds with the same credit and payment terms (the "10% test") is sold to the public as the issue price of that maturity (if different interest rates apply within a maturity, each separate CUSIP number within that maturity will be subject to the 10% test). At or promptly after the execution of this Agreement, the Representative shall report to the City the price or prices at which the Underwriters have sold to the public each maturity of the 2019A Bonds with the same credit and payment terms.

The Representative confirms that the Underwriters have offered the 2019A Bonds to the public on or before the date of this Agreement at the offering price or prices (the "initial offering price"), or at the corresponding yield or yields, set forth in Exhibit F attached hereto, except as otherwise set forth therein. Exhibit F also sets forth, as of the date of this Agreement, the maturities, if any, of the 2019A Bonds with the same credit and payment terms for which the 10% test has not been satisfied and for which the City and the Representative, on behalf of the Underwriters, agree that the restrictions set forth in the next sentence shall apply, which will allow the City to treat the initial offering price to the public of each such maturity as of the sale date as the issue price of that maturity (the "hold-

the-offering-price rule"). So long as the hold-the-offering-price rule remains applicable to any maturity of the 2019A Bonds, the Underwriters will neither offer nor sell unsold 2019A Bonds of that maturity to any person at a price that is higher than the initial offering price to the public during the period starting on the sale date and ending on the earlier of the following:

- (a) the close of the fifth (5th) business day after the sale date; or
- (b) the date on which the Underwriters have sold at least 10% of that maturity of the 2019A Bonds with the same credit and payment terms to the public at a price that is no higher than the initial offering price to the public.

The Representative shall promptly advise the City when the Underwriters have sold 10% of that maturity of the 2019A Bonds with the same credit and payment terms at a price that is no higher than the initial offering price to the public, if that occurs prior to the close of the fifth (5th) business day after the sale date.

The City acknowledges that, in making the representation set forth in this subsection, the Representative will rely on (i) the agreement of each Underwriter to comply with the requirements for establishing issue price of the 2019A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule, as set forth in an agreement among underwriters and the related pricing wires, (ii) in the event a selling group has been created in connection with the initial sale of the 2019A Bonds to the public, the agreement of each dealer who is a member of the selling group to comply with the requirements for establishing issue price of the 2019A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule, as set forth in a selling group agreement and the related pricing wires, and (iii) in the event that an Underwriter or dealer who is a member of the selling group is a party to a retail distribution agreement that was employed in connection with the initial sale of the 2019A Bonds to the public, the agreement of each broker-dealer that is a party to such agreement to comply with the requirements for establishing issue price of the 2019A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule, as set forth in the retail distribution agreement and the related pricing wires. The City further acknowledges that each Underwriter shall be solely liable for its failure to comply with its agreement regarding the requirements for establishing issue price of the 2019A Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule and that no Underwriter shall be liable for the failure of any other Underwriter, or of any dealer who is a member of a selling group, or of any broker-dealer that is a party to a retail distribution agreement, to comply with its corresponding agreement to comply with the requirements for establishing issue price of the 2019A Bonds, including, but not limited to, its agreement regarding the hold-the-offering-price rule as applicable to the 2019A Bonds.

The Representative confirms that:

- (i) any agreement among underwriters any selling group agreement and each retail distribution agreement relating to the initial sale of the 2019A Bonds to the public, together with the related pricing wires, contains or will contain language

obligating each Underwriter, each dealer who is a member of the selling group, and each broker-dealer that is a party to such retail distribution agreement, as applicable, to (A)(i) report the prices at which it sells to the public the unsold 2019A Bonds of each maturity with the same credit and payment terms allotted to it until it is notified by the Representative that either the 10% test has been satisfied as to the 2019A Bonds of that maturity with the same credit and payment terms or all 2019A Bonds of that maturity with the same credit and payment terms have been sold to the public and (ii) comply with the hold-the-offering-price rule, if applicable, in each case if and for so long as directed by the Representative and as set forth in the related pricing wires, (B) promptly notify the Representative of any sales of the 2019A Bonds that, to its knowledge, are made to a purchaser who is a related party to an underwriter participating in the initial sale of the 2019A Bonds (each such term as defined below); and (C) acknowledge that, unless otherwise advised by the Underwriter, dealer or broker-dealer, the Representative shall assume that each order submitted by the Underwriter, dealer or broker-dealer is a sale to the public; and

(ii) any agreement among Underwriters relating to the initial sale of the 2019A Bonds to the public, together with the related pricing wires, contains or will contain language obligating each Underwriter that is a party to a retail distribution agreement to be employed in connection with the initial sale of the 2019A Bonds to the public to require each broker-dealer that is a party to such retail distribution agreement to (A) report the prices at which it sells to the public the unsold 2019A Bonds of each maturity with the same credit and payment terms allotted to it until it is notified by the Representative that either the 10% test has been satisfied as to the 2019A Bonds of that maturity with the same credit and payment terms or all 2019A Bonds of that maturity with the same credit and payment terms have been sold to the public and (B) comply with the hold-the-offering-price rule, if applicable, in each case if and for so long as directed by the Representative and as set forth in the related pricing wires.

The Underwriters acknowledge that sales of any 2019A Bonds to any person that is a related party to an underwriter (as defined below) participating in the initial sale of the 2019A Bonds to the public (each such term being used as defined below) shall not constitute sales to the public for purposes of this section. Further, for purposes of this section,

- (i) “public” means any person other than an underwriter or a related party,
- (ii) “underwriter” means (A) any person that agrees pursuant to a written contract with the City (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the 2019A Bonds to the public and (B) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (A) to participate in the initial sale of the 2019A Bonds

to the public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the 2019A Bonds to the public),

(iii) a purchaser of any of the 2019A Bonds is a “related party” to an underwriter if the underwriter and the purchaser are subject, directly or indirectly, to (i) more than 50% common ownership of the voting power or the total value of their stock, if both entities are corporations (including direct ownership by one corporation of another), (ii) more than 50% common ownership of their capital interests or profits interests, if both entities are partnerships (including direct ownership by one partnership of another), or (iii) common ownership of the value of the outstanding stock of the corporation or the capital interests or profit interests of the partnership, as applicable, if one entity is a corporation and the other entity is a partnership (including direct ownership of the applicable stock or interests by one entity of the other), and

(iv) “sale date” means the date of execution of this Agreement by all parties.

2. Bond Authorization. The 2019A Bonds are authorized by an ordinance of the City adopted by the City Council of the City (the “City Council”) on March 13, 2019 (the “Bond Ordinance”), and the 2019A Bonds will be issued pursuant to and secured by a Trust Indenture dated as of April 1, 2019 (the “Indenture”), between the City and Amalgamated Bank of Chicago, as Trustee, Bond Registrar and Paying Agent for the 2019A Bonds (the “Trustee”). The 2019A Bonds will mature, bear interest and have such other terms and conditions as are set forth on Schedule I hereto.

3. The Preliminary Official Statement. Attached hereto as Exhibit A is a copy of the Preliminary Official Statement of the City, dated March 18, 2019, (the “Preliminary Official Statement”). For purposes of Rule 15c2-12 (“Rule 15c2-12”) adopted by the Securities and Exchange Commission (the “SEC”) under the 1934 Act, the Preliminary Official Statement is “deemed final” by the City as of its date except for the omission of such information as is permitted by Rule 15c2-12(b)(1).

4. Public Offering Price. The Underwriters have agreed to make a bona fide public offering of the 2019A Bonds at the initial offering prices set forth on Schedule I. The Representative will provide the City and Co-Bond Counsel (as defined herein) with a closing certificate confirming the reoffering yields and prices of the 2019A Bonds and the Underwriters acknowledge that the City and Co-Bond Counsel will rely on such certificate and that such reliance is material to the City in entering into this Agreement and in connection with the delivery of the 2019A Bonds.

5. The Official Statement.

(1) The City shall provide, or cause to be provided, at its expense, to the Underwriters no later than the earlier of (i) seven (7) business days after the date of this Agreement or (ii) one (1) day prior to the Closing, three copies of the Official Statement of the City, dated the date hereof, relating to the 2019A Bonds (the “Official Statement”), signed

on behalf of the City by the Chief Financial Officer and the Official Statement so delivered shall be “final” for purposes of Rule 15c2-12. Such delivery of the Official Statement shall occur in sufficient time to accompany any confirmation that requests payment from any customer and in sufficient quantity to comply with the rules of the SEC and the Municipal Securities Rulemaking Board (the “MSRB”).

(2) If on or prior to the Closing or within twenty-five (25) days after the “end of the underwriting period” (as hereinafter defined) any event known to the City relating to or affecting the City, the Bond Ordinance or the 2019A Bonds, shall occur which would cause any statement of a material fact contained in the Official Statement to be materially incorrect or materially incomplete, the City will promptly notify the Representative in writing of the circumstances and details of such event. If, as a result of such event, it is necessary, in the joint opinion of the City and the Representative to amend or supplement the Official Statement by stating or restating any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading, the City will forthwith prepare and furnish to the Underwriters a reasonable number of copies of an amendment of or a supplement to such Official Statement in form and substance satisfactory to the City and the Representative, at the City’s sole cost and expense, which will so amend or supplement such Official Statement so that, as amended or supplemented, the Official Statement will not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. For purposes of this Agreement, the term “end of the underwriting period” shall mean the later of the date of Closing or the date on which an Underwriter no longer retains an unsold balance of the 2019A Bonds for sale to the public. The Underwriters agree that the date on which the end of the underwriting period shall occur shall be the date of the Closing, unless the Underwriters otherwise notify the City in writing prior to twenty-five (25) days after the date of the Closing that, to the best of their knowledge, the Underwriters retain for sale to the public an unsold balance of the 2019A Bonds, in which case the end of the underwriting period shall be extended for additional periods of thirty (30) days each upon receipt of additional written notification from the Underwriters that, to the best of their knowledge, there exists an unsold balance of the 2019A Bonds, but in no event shall the end of the underwriting period be extended longer than sixty (60) days after the date of Closing.

The Official Statement shall be provided for distribution, at the expense of the City, in such quantity as may be requested by the Underwriters as set forth above in order to permit the Underwriters to comply with Rule 15c2-12, and the applicable rules of the MSRB, with respect to distribution of the Official Statement. The City shall prepare the Official Statement, including any amendments thereto, in word-searchable PDF format as described in the MSRB Rule G-32 and shall provide the electronic copy of the word-searchable PDF format of the Official Statement to the Underwriters no later than one (1) business day prior to the Closing, to enable the Underwriters to comply with MSRB Rule G-32.

(3) At or prior to the Closing, the Representative shall file, or cause to be filed, the Official Statement with the MSRB in compliance with the rules of the SEC and the MSRB. Promptly after the date after which the Underwriters are no longer obligated under Rule 15c2-

12(b)(4) to deliver to potential customers the Official Statement, the Representative shall notify the City of such date in writing.

(4) The Underwriters may enter into distribution agreements with certain financial institutions for the retail distribution of municipal securities, including the 2019A Bonds, at the initial public offering price. In accordance with such arrangements, the Underwriters may share a portion of its underwriting compensation.

6. Representations, Warranties and Covenants of the City. The City represents and warrants to the Underwriters as of the date hereof that:

(1) The City is a municipal corporation and home rule unit of local government, existing under the Constitution and laws of the State of Illinois (the "State").

(2) The City Council has: (i) duly adopted the Bond Ordinance, which remains in full force and effect; (ii) duly approved the execution and delivery of the Indenture; (iii) duly authorized the use of the Preliminary Official Statement prior to the date hereof in connection with the public offering and sale of the 2019A Bonds (iv) duly authorized the execution, delivery and distribution of the Official Statement in connection with the public offering and sale of the 2019A Bonds; and (v) duly authorized and approved the execution and delivery of the 2019A Bonds, this Agreement and a continuing disclosure undertaking pursuant to the provisions of Section (b)(5) of Rule 15c2-12 (the "Undertaking").

(3) With the exception of the disclosure described in the Preliminary Official Statement in the section titled "SECONDARY MARKET DISCLOSURE - Corrective Action Related to Certain Bond Disclosure Requirements," the City has not failed during the previous five years to comply in all material respects with any previous undertakings in a written continuing disclosure contract or agreement under Rule 15c2-12.

(4) The City has full legal right, power and authority to: (i) adopt the Bond Ordinance; (ii) execute and deliver this Agreement, the Indenture, the Undertaking and the Official Statement; (iii) issue, sell and deliver the 2019A Bonds to the Underwriters pursuant to the Bond Ordinance and the Indenture and as provided in this Agreement; and (iv) pay for the 2019A Bonds from the sources pledged as provided under the Bond Ordinance and the Indenture for their payment.

(5) The adoption of the Bond Ordinance and compliance with the provisions thereof do not, the execution and delivery of this Agreement, the Indenture, the Undertaking and delivery of the Official Statement, the issuance, and the sale and delivery of the 2019A Bonds to the Underwriters will not, in any material manner, violate any applicable law or administrative regulation of the State or any department, division, agency or instrumentality thereof or of the United States of America (the "United States") or of any department, division, agency or instrumentality thereof, or any applicable judgment or decree to which the City is subject, or conflict with, in a material manner, or constitute a material breach of, or a material default under, any ordinance, agreement or other instrument to which the City is a party or is otherwise bound.

(6) All approvals, consents and orders of, and filings (except, if any, under applicable state "blue sky" laws) with, any governmental authority, board, agency or commission having jurisdiction which would constitute a condition precedent to the performance by the City of its obligations under this Agreement, the Undertaking, the Bond Ordinance, the Indenture and the 2019A Bonds have been obtained or made.

(7) The financial statements of the City contained in the Preliminary Official Statement and in the Official Statement fairly present the financial position and results of operations of the City as of the date and for the periods therein set forth and the City has no reason to believe that such financial statements have not been prepared in accordance with generally accepted accounting principles as applied to governmental units, consistently applied except as otherwise noted therein.

(8) The Preliminary Official Statement as of its date did not and the Official Statement does not, as of its date, and will not, as of the date of closing, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading (excluding, any description of The Depository Trust Company ("DTC"), information in the third paragraph under the caption "THE 2019A BONDS—General" describing DTC and its Book Entry System, "RATINGS," "UNDERWRITING," "TAX MATTERS," APPENDIX A — "SUMMARY OF THE INDENTURE", APPENDIX B — "ECONOMIC AND DEMOGRAPHIC INFORMATION (with respect to the information under the headings "— Economy," "— Percentage of Total Non-Farm Employment by Major Industry Sector" and "— Housing Market," and information relating to population, per capita personal income and employment, and unemployment rate with respect to the United States, the State of Illinois, Cook County and the Chicago MSA and other information in APPENDIX B not explicitly sourced to the City), APPENDIX E — "OPINIONS OF CO-BOND COUNSEL," APPENDIX F—BOOK ENTRY ONLY SYSTEM and information furnished by the Underwriters in writing, explicitly for inclusion under the heading "UNDERWRITING" or information designated as preliminary or permitted to be omitted from the Preliminary Official Statement pursuant to Rule 15c2-12).

(9) Source Information (as defined and described in the Preliminary Official Statement and in the Official Statement under the caption "PENSION BENEFITS PROVIDED BY THE CITY" including but not limited to the tables contained under such caption) is sourced from the Retirement Funds including documents published by the Retirement Funds and the City takes no responsibility for the accuracy and completeness of such Source Information; however, nothing has come to the attention of the City which would lead the City to believe that such Source Information is not true and correct in all material respects.

(10) The Bond Ordinance, the Indenture, this Agreement, and the Undertaking, when duly executed and delivered by the parties thereto, as appropriate, will constitute legal, valid and binding obligations of the City enforceable in accordance with their terms (except to the extent that enforceability may be limited by bankruptcy, insolvency and other laws affecting creditors' rights or remedies and the availability of equitable remedies generally).

(11) When delivered to the Representative, and paid for by the Underwriters at the Closing in accordance with the provisions of this Agreement, the 2019A Bonds will be duly authorized, executed and delivered and will constitute legal, valid and binding obligations of the City enforceable in accordance with their terms (except to the extent that enforceability may be limited by bankruptcy, insolvency and other laws affecting creditors' rights or remedies and the availability of equitable remedies generally).

(12) Except as disclosed in the Preliminary Official Statement as of its date and in the Official Statement, as of its date, there is no action, suit or proceeding, at law or in equity, or before or by a court, public board or body, pending or, to the City's knowledge, threatened, against the City wherein an unfavorable decision, ruling or finding would materially adversely affect (i) the validity or enforceability of the 2019A Bonds, the Bond Ordinance, the Indenture, this Agreement, or the Undertaking or (ii) the excludability from federal income taxation of the interest on the 2019A Bonds under the Internal Revenue Code of 1986, as amended (the "Code").

(13) The City has not taken, or omitted taking, and will not take or omit to take, any action, which action or omission would adversely affect the excludability from federal income taxation of the interest on the 2019A Bonds under the Code.

(14) Any certificate signed by any Authorized Officer of the City and delivered to the Representative at the Closing in connection with the issuance or sale of the 2019A Bonds shall be deemed to be a representation and warranty by the City to the Underwriters as to the statements made therein as of the date so delivered.

(15) The City will make available such information, execute such instruments and take such other action in cooperation with the Underwriters as the Representative may reasonably request to qualify the 2019A Bonds for offering and sale under the "blue sky" or other securities laws and regulations of such states and other jurisdictions of the United States as the Underwriters may designate in writing; provided, however, that nothing in this Section shall require the City to consent to general service of process in any state or jurisdiction other than the State.

(16) The City will apply the proceeds of the 2019A Bonds in accordance with the Bond Ordinance and the Indenture.

(17) The City acknowledges and agrees that: (i) the transaction contemplated by this Agreement is an arm's length, commercial transaction between the City and the Underwriters in which the Underwriters are acting solely as a principal and not acting as a municipal advisor, financial advisor or fiduciary to the City; (ii) the Underwriters have not assumed any advisory or fiduciary responsibility to the City with respect to the transaction contemplated hereby and the discussions, undertakings and procedures leading thereto (irrespective of whether any Underwriter has provided other services or is currently providing other services to the City on other matters); (iii) the Underwriters have financial and other interests that differ from those of the City; and (iv) the City has consulted its own legal, accounting, tax, financial and other advisors, as applicable, to the extent it has deemed appropriate.

7. Closing. Subject to the conditions set forth in this Agreement, the closing (the "Closing") of the sale of the 2019A Bonds by the City and the purchase of the 2019A Bonds by the Underwriters, shall take place at approximately 9:00 a.m., Chicago time, on April 10, 2019, at the offices of Miller Canfield, Paddock and Stone, P.L.C., 225 West Washington, Suite 2600, Chicago, Illinois 60606 (or at such other time, date and place as the City and the Representative mutually agree).

(1) At the Closing, the City shall deliver or cause to be delivered to DTC, as securities depository, for the account of the Underwriters one fully registered certificate for each interest rate and maturity of the 2019A Bonds of each Series in the aggregate principal amount thereof, registered in the name of Cede & Co., as nominee for DTC.

(2) Upon delivery of the 2019A Bonds to the Representative at the Closing, the City will deliver to the Representative the closing documents as set forth in Section 10 hereof.

(3) The Representative will accept delivery of the 2019A Bonds and pay the purchase price therefor at the Closing by delivering federal funds checks or making federal funds wire transfers or otherwise confirming deposits of same day funds, as the City shall direct, to the City's account at a bank specified by the City, in an aggregate amount equal to the purchase price of the 2019A Bonds pursuant to Section 1 hereof.

8. Reliance and Further Conditions of the Parties. The Underwriters and the City have entered into this Agreement in reliance upon the respective representations, warranties and agreements of the City and the Underwriters herein and the performance by the City and the Underwriters of their respective obligations hereunder, both as of the date hereof and as of the date of the Closing. The Underwriters' obligations under this Agreement are and shall be subject to the following further condition that at the time of the Closing, the Bond Ordinance, the Indenture, the Undertaking, and this Agreement shall be in full force and effect and the Bond Ordinance and the Official Statement shall not have been amended, modified or supplemented except as may have been agreed to with respect to the Official Statement pursuant to Section 5 hereof, and the City shall have duly adopted and there shall be in full force and effect such ordinances as, in the opinion of Miller, Canfield, Paddock and Stone, P.L.C., Chicago, Illinois, and Zuber Lawler & Del Duca LLP, Chicago, Illinois, as co-bond counsel ("Co-Bond Counsel") shall be necessary in connection with the transactions contemplated hereby and thereby.

9. Termination of Agreement.

(1) The Underwriters shall have the right to cancel their obligations to purchase the 2019A Bonds and have the further right to terminate this Agreement, without liability therefor, by written notice to the City from the Representative, if, between the date hereof and the Closing:

(i) legislation shall be enacted by the Congress of the United States or adopted by either House thereof or shall have been introduced and favorably reported for passage to either House by any committee of such House to which such legislation had been referred for consideration, or a decision shall have been

rendered by or adopted by either House or a decision by a court of the United States or the United States Tax Court or an order, ruling or regulation shall have been issued or proposed by or on behalf of the Treasury Department of the United States or the Internal Revenue Service, with respect to federal income taxation upon interest received on obligations of the general character of the 2019A Bonds which, in the Representative's reasonable opinion, does materially adversely affect the market price or marketability of the 2019A Bonds or the ability of the Underwriters to enforce contracts for the sale, at the contemplated offering prices (or yields), of the 2019A Bonds, or

(ii) legislation shall have been enacted by the Congress of the United States to become effective on or prior to the Closing, or a decision of a court of the United States shall be rendered, or a stop order, ruling, regulation or proposed regulation by or on behalf of the SEC or other agency having jurisdiction over the subject matter shall be issued or made, to the effect that the issuance, sale and delivery of the 2019A Bonds, or any similar obligations of any similar public body of the general character of the City, is in violation of, or has the effect of requiring the contemplated offering, sale and distribution of the 2019A Bonds to be registered under the Securities Act of 1933, as amended, or the enactment of the Bond Ordinance or any ordinance of similar character is in violation of the Indenture Act of 1939, as amended, or with the purpose or effect of otherwise prohibiting the issuance, sale or delivery of the 2019A Bonds as contemplated hereby or by the Official Statement or of obligations of the general character of the 2019A Bonds which, in the Representative's reasonable opinion, does materially adversely affect the market price or marketability of the 2019A Bonds or the ability of the Underwriters to enforce contracts for the sale, at the contemplated offering prices (or yields), of the 2019A Bonds, or

(iii) there shall have occurred any event which in the Representative's reasonable opinion, after consultation with its legal counsel, makes the Official Statement either (A) contain an untrue statement of a material fact or (B) omit to state a material fact required to be stated therein or necessary to make the statements contained therein not misleading in any material respect, and (a) the City fails to prepare or furnish or fails to cause to be prepared or furnished to the Underwriters an amendment or supplement to the Official Statement, pursuant to Section 5 hereof, which will amend or supplement the Official Statement so that, as amended or supplemented, the Official Statement will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements contained therein not misleading in a material respect, or (b) the effect of the Official Statement as so supplemented is, in the reasonable opinion of the Representative, to materially adversely affect the market for the 2019A Bonds or the sale, at the contemplated offering prices (or yields), of the 2019A Bonds by the Underwriters set forth in Schedule I, or

(iv) there shall be in force a general suspension of trading on The New York Stock Exchange, Inc., or minimum or maximum prices for trading shall have been fixed and be in force, or maximum ranges for prices for securities shall have

been required and be in force on The New York Stock Exchange, Inc., whether by virtue of a determination by that Exchange or by order of the SEC or any other governmental authority having jurisdiction, or any national securities exchange shall have imposed additional material restrictions not in force as of the date hereof with respect to trading in securities generally, or to the 2019A Bonds or similar obligations, or

(v) a general banking moratorium shall have been declared by either federal, State or New York authorities having jurisdiction and be in force, or

(vi) any legislation, ordinance, rule or regulation shall be enacted by the City or State, or any department or agency thereof, or a decision by any court of competent jurisdiction within the State shall be rendered which, in the reasonable opinion of the Representative, would have a material adverse effect on the market price or marketability of the 2019A Bonds, or

(vii) a war involving the United States, an outbreak or escalation of or adverse development in hostilities or terrorist activities or other national or international calamity or crisis shall have occurred which, in the reasonable opinion of the Representative, materially adversely affects the market price or marketability of the 2019A Bonds, or

(viii) there shall be any proceeding or threatened proceeding by the SEC against the City and such proceeding or threatened proceeding, in the reasonable opinion of the Representative, materially adversely affects the market price or marketability of the 2019A Bonds.

(2) If the City shall be unable to satisfy the conditions contained in this Agreement or if the Underwriters' obligations shall be terminated for any reason permitted by this Agreement, this Agreement shall terminate and neither the City nor the Underwriters shall have any further obligations hereunder with respect to the payment of the purchase price or the delivery of the 2019A Bonds.

#### 10. Closing Conditions.

(1) The Underwriters' obligations to purchase, to accept delivery of and to pay for the 2019A Bonds at the Closing shall be conditioned upon the City's performance of its obligations under Sections 6, 7 and 8 hereof prior to the Closing and the Underwriters' receipt of the following documents:

(i) three copies of the Official Statement manually executed by the Chief Financial Officer;

(ii) the approving opinions, dated the date of the Closing, of Co-Bond Counsel to the City, substantially in the form attached to the Official Statement as Appendix E;

(iii) the supplemental opinions, dated the date of the Closing and addressed to the Representative on behalf of the Underwriters and to the City, of Co-Bond Counsel, substantially in the form attached hereto as Exhibit B-1;

(iv) separate letters dated the date of the closing and addressed to the City and the Representative on behalf of the Underwriters, respectively, of Chapman and Cutler LLP, Special Disclosure Counsel to the City in connection with certain pension matters described in the Official Statement, substantially in the form attached hereto as Exhibit B-2;

(v) an opinion, dated the date of the Closing and addressed to the Representative on behalf of the Underwriters, of the Corporation Counsel of the City, substantially in the form attached hereto as Exhibit C;

(vi) an opinion or opinions, dated the date of the Closing and addressed to the Representative on behalf of the Underwriters, of Katten Muchin Rosenman LLP, Chicago, Illinois, as counsel for the Underwriters (“Underwriter’s Counsel”), in form and substance satisfactory to the Representative;

(vii) an opinion or opinions, dated the date of the Closing and addressed to the Representative on behalf of the Underwriters, of Cotillas and Associates, Chicago, Illinois, Disclosure Counsel to the City, substantially in the form attached hereto as Exhibit D;

(viii) a certificate, dated the date of the Closing, signed by the Chief Financial Officer, to the effect that (A) the representations and warranties of the City herein are correct in all material respects as of the date of the Closing; and (B) there has been no material adverse change in the financial condition of the City since December 31, 2017, as reflected in Appendix C to the Official Statement, except as set forth in the Official Statement;

(ix) a certificate of the Trustee to the effect that the Trustee has full legal right, power and authority to act as the Trustee, Bond Registrar, and Paying Agent under the Bond Ordinance and the Indenture;

(x) an executed copy of the Undertaking substantially in the form summarized in the Official Statement under the heading “SECONDARY MARKET DISCLOSURE”;

(xi) an executed copy of the Indenture;

(xii) a copy of an agreement between the City and DTC relating to the safekeeping and book-entry form of the 2019A Bonds;

(xiii) a copy, duly certified by the City Clerk of the City, of the Bond Ordinance, as passed by the City Council and approved by the Mayor;

(xiv) evidence satisfactory to the Representative that the 2019A Bonds have ratings of "BBB+ (stable outlook)" by Standard & Poor's, a division of The McGraw-Hill Companies, Inc., BBB- (stable outlook) by Fitch Ratings, and A (stable outlook) by Kroll Bond Rating Agency;

(xv) such additional closing certificates and agreements related to the 2019A Bonds, including such tax certifications and agreements relating to the 2019A Bonds, as Co-Bond Counsel shall reasonably determine to be necessary to deliver their opinions as provided hereinabove.

(2) All of the opinions, letters, certificates, instruments and other documents mentioned above or elsewhere in this Agreement will be deemed to be in compliance with the provisions hereof if, but only if, they are in form and substance satisfactory to the Representative, in its reasonable judgment. Payment for the 2019A Bonds and acceptance of the 2019A Bonds by the Underwriters shall constitute acknowledgment by the Underwriters of the City's full performance hereunder.

11. Expenses. The Underwriters shall be under no obligation to pay, and the City shall pay, any and all expenses incident to the performance of the City's obligations hereunder, including but not limited to: (a) the cost of the preparation and printing or other reproduction of the Bond Ordinance, the Indenture, the Preliminary Official Statement and the Official Statement, as well as the cost of shipping the Official Statement; (b) the cost of the preparation and printing of the 2019A Bonds; (c) the fees and disbursements of Co-Bond Counsel and Disclosure Counsel; (d) the fees and disbursements of any experts or consultants retained by the City; (e) the fees of the Trustee and DTC; and (f) the fees for the municipal bond ratings on the 2019A Bonds. The City shall be responsible for any meal, travel and lodging expenses of its own officials and employees, whether or not paid initially by the Underwriters. The Underwriters will pay the expenses incurred by any of them in connection with their public offering and distribution of the 2019A Bonds, including, but not limited to, the CUSIP Service Bureau charges, Blue Sky memorandum costs and filing fees, any amounts required to be paid to the MSRB, the fees and expenses of Underwriters' Counsel and advertising expenses directly incurred by the Underwriters.

12. Underwriters' Certificate. The City's obligations to sell and deliver the 2019A Bonds to the Underwriters at the Closing shall be conditioned upon the delivery by the Underwriters at the Closing of (1) a Representation Letter dated the date of the Closing, signed by the Representative and each of the Underwriters in the form attached hereto as Exhibit E, (2) an Issue Price Certificate of the Representative, dated the date of the Closing, signed by the Representative, in form and substance satisfactory to the City and Co-Bond Counsel and substantially in the form attached hereto as Exhibit F; and (3) a Certificate of the Representative executed by the Representative in the form attached hereto as Exhibit G.

13. Notices. Any notice or other communication to be given to the City under this Agreement shall be given by delivering the same in writing at the address set forth above, and any such notice or other communication to be given to the Underwriters shall be given by delivering the same in writing to the Representative at the following address:

Barclays Capital Inc.  
745 Seventh Avenue, 19<sup>th</sup> Floor  
New York, New York 10019

14. No Third Party Beneficiaries, Survival, Etc. This Agreement is made solely for the benefit of the City and the Underwriters (including the successors or assigns of any Underwriter), and no other person, partnership, association or corporation including any purchaser of the 2019A Bonds shall acquire or have any right hereunder or by virtue hereof. Except as provided in Section 9 (2), all of the representations and agreements by the City in this Agreement shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriters and shall survive the delivery of and payment for the 2019A Bonds.

15. Governing Law. The rights and obligations of the parties to this Agreement shall be governed by, construed and enforced in accordance with the laws of the State, without giving effect to the conflict of laws provisions thereof.

16. Representations and Warranties of the Underwriters.

(1) Each Underwriter, on its own behalf, warrants and represents that it is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization and that it is authorized to conduct business in the State.

(2) The Underwriters warrant and represent that this Agreement has been duly authorized, executed and delivered by the Representative on behalf of the Underwriters and assuming due authorization, execution and delivery by the City, is the legal binding joint and several obligation of the Representative on behalf of itself and the Underwriters enforceable in accordance with its terms, except as the enforceability of this Agreement may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditor's rights generally and from the application of general principles of equity and from public policy limitations on the exercise of any rights to indemnification and contribution. The Underwriters represent, warrant and covenant that they are and will be in compliance with all applicable laws, rules and regulations in connection with the offering, issuance and sale of the 2019A Bonds.

(3) The Underwriters have heretofore authorized the Representative to execute any document on behalf of or exercise any authority of and otherwise to act for, the Underwriters in all matters under or pertaining to this Agreement. Each Underwriter has warranted and confirmed to the Representative, and the Representative warrants and confirms to the City that: (i) it is duly registered under the 1934 Act, as a broker/dealer or municipal securities dealer and has duly paid the fee prescribed by MSRB Rule A-12 or is exempt from such requirements, (ii) it is (a) a member in good standing of the Financial

Industry Regulatory Authority (“FINRA”) or (b) otherwise eligible under FINRA rules to receive underwriting discounts and concessions available to such members with respect to underwriters of municipal securities, and (iii) it has complied with the dealer registration requirements, if any, of the various jurisdictions in which it offers 2019A Bonds for sale. The Underwriters represent, warrant and covenant that they are and will be in compliance with all applicable laws, rules and regulations in connection with the offering, issuance and sale of the 2019A Bonds.

(4) To the knowledge of the Underwriters, no person holding office of the City, either by election or appointment, is in any manner financially interested, either directly in the officer’s own name or indirectly in the name of any other person, association, trust or corporation, in any contract or agreement being entered into by the Underwriters or the performance of any work to be carried out by the Underwriters in connection with the issuance and sale of the 2019A Bonds upon which said officer may be called upon to act or vote.

(5) Each Underwriter severally represents to the City that neither the Underwriter, nor any Affiliate thereof is listed on any of the following lists maintained by the Office of Foreign Assets Control of the United States Department of the Treasury, the Bureau of Industry and Security of the United States Department of Commerce, the United States Department of State or their successors, or on any other list of persons or entities with which the City may not do business under any applicable law, rule, regulation, order or judgment: the Specially Designated Nationals List, the Denied Persons List, the Unverified List, the Entity List, the List of Statutorily Debarred Parties and the Excluded Parties List. Such representation shall be provided to the City in the form included in Exhibit E, attached hereto.

*For purposes of this representation, “Affiliate,” when used to indicate a relationship with a specified person or entity, means a person or entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such specified person or entity, and a person or entity shall be deemed to be controlled by another person or entity, if controlled in any manner whatsoever that results in control in fact by that other person or entity (or that other person or entity and any persons or entities with whom that other person or entity is acting jointly or in concert), whether directly or indirectly and whether through share ownership, a trust, a contract or otherwise.*

17. Approval. The approval of the Underwriters when required hereunder or the determination of their satisfaction as to any document referred to herein shall be in writing signed by the Representative and delivered to the City.

18. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the parties and their successors and assigns, and will not confer any rights upon any other person. The terms “successors” and “assigns” shall not include any purchaser of any 2019A Bond or 2019A Bonds from the Underwriters, or from any third party with whom the Underwriters enter into a distribution agreement to sell the 2019A Bonds, merely because of such purchase.

19. Enforceability. If any provision of this Agreement shall be held or deemed to be or shall, in fact, be invalid, inoperative or unenforceable as applied in any particular case in any jurisdiction or jurisdictions, or in all jurisdictions, because it conflicts with any provisions of any constitution, statute, rule or public policy, or for any other reason, such circumstances shall not have the effect of rendering the provision in question invalid, inoperative or unenforceable in any other case or circumstances, or of rendering any other provision or provisions of this Agreement invalid, inoperative or unenforceable to any extent whatsoever.

20. Counterparts. This Agreement may be executed in several counterparts, each of which shall be regarded as the original and all of which shall constitute one and the same document.

21. Cooperation with City Inspector General. As acknowledged by each Underwriters' Representation Letter set forth as Exhibit E, each Underwriter understands and agrees that it is required to and will comply with the provisions of Chapter 2-56 of the Municipal Code of Chicago. Pursuant to Section 2-56-090 of the Municipal Code of Chicago, it shall be the duty of each Underwriter to cooperate with the inspector general in any investigation or hearing undertaken pursuant to Chapter 2-56. Every Underwriter shall report, directly and without undue delay, to the City's inspector general any and all information concerning conduct by any person which such Underwriter knows to involve corrupt activity, pursuant to Section 2-156-018(b) of the Municipal Code of Chicago. As acknowledged by each Underwriters' Representation Letter, any Underwriter's knowing failure to report corrupt activity as required in subsection (b) of Section 2-156-018 of the Municipal Code of Chicago, shall constitute an event of default under this Agreement. For purposes of subsection (b) of Section 2-156-018 of the Municipal Code of Chicago, "corrupt activity" shall mean any conduct set forth in subparagraph (a)(1), (2) or (3) of Section 1-23-020 of the Municipal Code of Chicago:

- (1) bribery or attempted bribery, or its equivalent under any local, state or federal law, of any public officer or employee of the City or of any sister agency; or
- (2) theft, fraud, forgery, perjury, dishonesty or deceit, or attempted theft, fraud, forgery, perjury, dishonesty or deceit, or its equivalent under any local, state or federal law, against the City or of any sister agency; or
- (3) conspiring to engage in any of the acts set forth in items (1) or (2) of above.

The Underwriters (individually and collectively) agree and covenant that no payment, gratuity or offer of employment shall be made in connection with this Agreement, by or on behalf of a subcontractor to an Underwriter or any higher-tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order related to this Agreement.

22. Entire Agreement. This Agreement constitutes the entire agreement between the parties hereto with respect to the matters covered hereby and supersedes all prior

agreements and understandings between the parties. This Agreement shall only be amended, supplemented or modified in a writing signed by both of the parties hereto.

**[Signature page follows]**

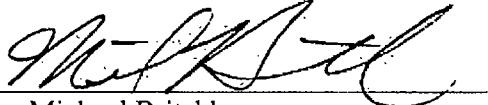
IN WITNESS WHEREOF, the parties hereto have caused this Bond Purchase Agreement in connection with the City of Chicago General Obligation Bonds, Series 2019A to be executed by their duly authorized representatives as of the date first above written.

Very truly yours,

**THE UNDERWRITERS**

Barclays Capital Inc.  
Cabrera Capital Markets, LLC  
IFS Securities, Inc.  
Mischler Financial Group, Inc.  
North South Capital LLC  
Ramirez & Co., Inc.  
Rice Financial Products Company

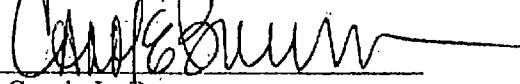
**By: BARCLAYS CAPITAL INC.**  
As Representative

By:   
Michael Britchkow

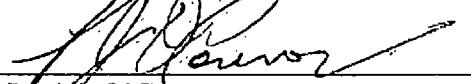
Director

Accepted by the City:

**CITY OF CHICAGO**

By:   
Carole L. Brown  
Chief Financial Officer

Concurred:

By:   
Patrick O'Connor  
Acting Chairman, Committee on  
Finance of the City Council

## SCHEDULE I

### TERMS OF BONDS

1. Aggregate Principal Amount: \$721,980,000
2. Date of Issuance (Expected to be April 10, 2019)
3. Maturities, Principal Amounts, Interest Rates, Yields and CUSIP Numbers:

#### **\$721,980,000 General Obligation Bonds, Series 2019A**

#### **\$235,690,000 Series 2019A Serial Bonds**

<b>Maturity (January 1)</b>	<b>Principal Amount</b>	<b>Interest Rate</b>	<b>Yield<sup>c</sup></b>	<b>CUSIP<sup>†</sup> No.</b>
2027	\$21,070,000	5.00%	3.45%	167486D30
2028	30,090,000	5.00%	3.51%	167486D48
2029	15,725,000	5.00%	3.59%	167486D55
2031	11,730,000	5.00%	3.76%	167486D63
2035	50,500,000	5.50%	3.96%	167486D71
2039	46,900,000	5.00%	4.27%	167486D89
2040	59,675,000	5.00%	4.30%	167486D97

**\$222,235,000 5.00% Series 2019A Term Bonds Due January 1, 2044, Yield 4.40%<sup>c</sup>, CUSIP<sup>†</sup> No. 167486E21**

**\$264,055,000 5.50% Series 2019A Term Bonds Due January 1, 2049, Yield 4.35%<sup>c</sup>, CUSIP<sup>†</sup> No. 167486E39**

<sup>c</sup>Yield priced to first call date of January 1, 2029.

*Redemption.*

The 2019A Bonds are subject to both optional and mandatory redemption prior to maturity, as described below. The 2019A Bonds shall be redeemed only in principal amounts of \$5,000 and integral multiples thereof (“Authorized Denominations”).

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<sup>†</sup> Copyright, American Bankers Association (“ABA”). CUSIP data herein are provided by CUSIP Global Services, operated on behalf of the ABA by S&P Global Market Intelligence, a division of S&P Global Inc. The CUSIP numbers listed above are being provided solely for the convenience of holders of the 2019A Bonds only at the time of issuance of the 2019A Bonds and neither the Corporation nor the Underwriters make any representation with respect to such numbers or undertakes any responsibility for their accuracy now or at any time in the future. The CUSIP number for a specific maturity is subject to being changed after the issuance of the 2019A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the 2019A Bonds.

*Optional Redemption of 2019A Bonds*

*Optional Redemption.* The 2019A Bonds maturing on or after January 1, 2031 are subject to redemption at the option of the City, on any date occurring on or after January 1, 2029, in such principal amounts and from such maturities and interest rates as the City shall determine and by lot within a single maturity and interest rate, at a Redemption Price of 100% of the principal amount thereof being redeemed plus accrued interest, if any, to the date of redemption. No redemption of less than all of the 2019A Bonds Outstanding shall be made unless the aggregate principal amount of 2019A Bonds to be redeemed is equal to \$5,000 multiples. Any redemption of less than all of the 2019A Bonds Outstanding shall be made in such a manner that all 2019A Bonds Outstanding after such redemption are in Authorized Denominations. If fewer than all 2019A Bonds Outstanding are to be optionally redeemed, the 2019A Bonds to be called shall be called from such maturities and interest rates as may be determined by an Authorized Officer.

*Mandatory Redemption of 2019A Bonds*

The 2019A Term Bonds maturing on January 1, 2044 and January 1, 2049 are subject to mandatory redemption prior to maturity at a Redemption Price on January equal to 100% of the principal amount being redeemed, plus accrued interest to the date of redemption, on the dates and in the amounts set forth below:

**Series 2019A Bonds maturing on January 1, 2044**

<u>Year</u> <u>(January 1)</u>	<u>Principal</u> <u>Amount</u>
2041	\$35,385,000
2042	\$37,210,000
2043	\$72,995,000
2044†	\$76,645,000

† Final maturity

**Series 2019A Bonds maturing on January 1, 2049**

<u>Year</u> <u>(January 1)</u>	<u>Principal</u> <u>Amount</u>
2045	\$47,310,000
2046	\$49,915,000
2047	\$52,660,000
2048	\$55,555,000
2049†	\$58,615,000

†Final maturity

The principal amount of any 2019A Bonds to be mandatorily redeemed in each year may be reduced through earlier optional redemption, with any partial optional redemption credited against future mandatory redemption requirements in such order as the City may determine. In addition, the City may, on or prior to the (60) days preceding any mandatory redemption date, direct the Trustee to purchase 2019A Bonds to be retired on such mandatory redemption date at such prices as the City shall determine.

*Selection of 2019A Bonds to be Redeemed*

If less than all the 2019A Bonds shall be called for redemption under any provision of the Indenture permitting partial redemption, (i) such redemption shall be by lot in such manner as the Trustee may determine among such 2019A Bonds, and (ii) subject to other applicable provisions of the Indenture, the portion of any 2019A Bond to be redeemed shall be in a principal amount equal to an Authorized Denomination.

**EXHIBIT A**  
**PRELIMINARY OFFICIAL STATEMENT**

**EXHIBIT B-1**

**SUPPLEMENTAL OPINIONS OF CO-BOND COUNSEL**

April \_\_, 2019

City of Chicago  
City Hall  
121 North LaSalle Street  
Chicago, Illinois 60602

The Underwriters listed  
on **Exhibit A**

Re: City of Chicago  
\$721,980,000 General Obligation Bonds, Series 2019A

Ladies and Gentlemen:

We acted as co-bond counsel in connection with the issuance by the City of Chicago (the "City") of \$721,980,000 aggregate original principal amount of its General Obligation Bonds, Series 2019A (the "Bonds"). We rendered our separate opinions today as co-bond counsel as to the validity of the Bonds.

The following opinions are based upon the same examination of the record of proceedings and accompanying certificates, and are subject to the same limitations, as described in our approving opinions as co-bond counsel described above. In addition to the items described in our approving opinions, the record of proceedings also includes executed copies of (i) the Bond Purchase Agreement, dated March 26, 2019 (the "Bond Purchase Agreement"), between the City and Barclays Capital Inc., as representative of the underwriters listed on Exhibit A (the "Underwriters"), (ii) the Continuing Disclosure Undertaking of the City, dated April \_\_, 2019 (the "Continuing Disclosure Undertaking"), with respect to the Bonds, (iii) the Preliminary Official Statement, dated March 18, 2019, of the City relating to the Bonds (the "Preliminary Official Statement"), and (iv) the Official Statement, dated March 26, 2019, of the City relating to the Bonds (the "Official Statement"). We are furnishing this opinion pursuant to Section 10(1)(iii) of the Bond Purchase Agreement. Capitalized terms used but not defined in this letter have the meanings ascribed to them in our approving opinions described above.

Based upon our examination as described in our approving opinions as co-bond counsel, we are further of the opinion as follows:

1. The Bonds are exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"). It is not necessary, in connection with the initial public offering and sale of the Bonds in the manner contemplated in the Bond Purchase Agreement, to register any securities under the Securities Act or to qualify the Bond Ordinance or the Indenture under the Trust Indenture Act of 1939, as amended.

2. We have reviewed the statements in the Preliminary Official Statement and the Official Statement on the front cover thereof, under the captions "INTRODUCTION," "THE 2019A BONDS," "SECURITY FOR THE 2019A BONDS," and "TAX MATTERS," and in APPENDIX A and, insofar as those statements purport to summarize certain provisions of the Bonds, the Indenture and the Bond Ordinance, such statements present fair and accurate summaries of those provisions. The statements in the Preliminary Official Statement and the Official Statement in the first paragraph on the front cover thereof, under the caption "TAX MATTERS" and in APPENDIX E present a fair and accurate summary of the matters relating to the tax status of interest on the Bonds discussed in such portions of the Preliminary Official Statement and the Official Statement.

3. The execution and delivery on behalf of the City of the Bond Purchase Agreement has been duly authorized by the City. The Bond Purchase Agreement has been duly executed and delivered by the City and is a binding contractual obligation of the City in accordance with its terms if it is a valid and binding obligation of the Underwriters (as to which we express no opinion).

4. The Continuing Disclosure Undertaking has been duly authorized, executed and delivered by the City and is a binding contractual obligation of the City in accordance with its terms.

Except as stated in paragraph 2 of this opinion letter, we have not undertaken to determine independently the accuracy or completeness of the Preliminary Official Statement or the Official Statement. However, we state that during our participation in the authorization and issuance of the Bonds as co-bond counsel (which included participation in conferences with the City and its financial advisors and counsel and the Underwriters and their counsel concerning the Preliminary Official Statement and the Official Statement), nothing has come to our attention which has caused us to believe that the Preliminary Official Statement or the Official Statement (except for statements under the captions "THE CITY", "PLAN OF FINANCING" (other than those statements purporting to summarize certain provisions of the Bonds, the Indenture and the Bond Ordinance), "FINANCIAL DISCUSSION AND ANALYSIS," "PENSION BENEFITS PROVIDED BY THE CITY," "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS," "GENERAL OBLIGATION DEBT," "INVESTMENT CONSIDERATIONS," "LITIGATION," "INDEPENDENT AUDITORS," "RATINGS," "FINANCIAL ADVISORS AND INDEPENDENT REGISTERED MUNICIPAL ADVISOR," "UNDERWRITING," "APPROVAL OF LEGAL MATTERS" (other than those statements purporting to summarize certain provisions of the Bonds, the Indenture and the Bond Ordinance), "SECONDARY MARKET DISCLOSURE—Corrective Action Related to Certain Bond Disclosure Requirements," Appendices B, C, D, and F, and the financial and statistical data in the Preliminary Official Statement or the Official Statement, as to which we express no view), as of its date or as of the date of this letter, contained or contains an untrue statement of a material fact or omitted or omits a material fact necessary to make the statements in it, in light of the circumstances under which they were made, not misleading.

The enforceability of provisions of the Bond Purchase Agreement and the Continuing Disclosure Undertaking may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights. Enforcement of provisions of the Bond Purchase Agreement or the Continuing Disclosure Undertaking pursuant to an equitable or similar remedy

is subject to general principles of law or equity governing such a remedy, including the exercise of judicial discretion whether to grant any particular form of relief. The enforceability of the indemnification provisions of the Bond Purchase Agreement may be limited by federal or state securities laws.

This opinion letter is based upon facts known or certified to us and laws in effect on its date and speaks as of that date. The opinions stated in this letter are expressions of professional judgment based upon such facts and law and are not a guaranty of a result. We have not undertaken any obligation to revise or supplement this opinion to reflect any facts or circumstances that may come to our attention after the date of this opinion or any changes in law that may occur after that date.

This opinion letter is furnished at the request of our client, the City, to satisfy a requirement of the Bond Purchase Agreement. Addressing our separate approving opinions as co-bond counsel described above and this opinion letter to the Underwriters does not create or reflect an attorney-client relationship between our firm and the Underwriters. The opinions rendered and assurances given in this letter are solely for the benefit of the persons to whom this letter is addressed in connection with the issuance and delivery of the Bonds and may not be relied upon by other persons or for any other purpose without our express prior written consent.

[Co-Bond Counsel]

**Exhibit A**

**The Underwriters**

Barclays  
Cabrera Capital Markets LLC  
IFS Securities  
Mischler Financial Group, Inc.  
North South Capital LLC  
Ramirez and Co  
Rice Financial

**EXHIBIT B-2**

## LETTERS OF SPECIAL PENSION DISCLOSURE COUNSEL

## LETTER TO CITY

, 2019

City of Chicago  
121 North LaSalle Street  
Chicago, Illinois 60602

Re: \$721,980,000 City of Chicago  
General Obligation Bonds, Series 2019A

Ladies and Gentlemen:

We have acted as special disclosure counsel to you, the City of Chicago (the "City"), solely in connection with the information contained under the captions "PENSION BENEFITS PROVIDED BY THE CITY" and "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS" (together, the *Pension Section*) of the Preliminary Official Statement dated March 18, 2019 (the *Preliminary Official Statement*) and the Official Statement dated March 26, 2019 (the *Official Statement*), each relating to the General Obligation Bonds, Series 2019A (the *Bonds*) issued by the City on this date.

In accordance with our understanding with the City, we have reviewed the Pension Section, certificates of officers of the City and other appropriate persons, and such other records, reports, opinions and documents, and we have made such investigations of law, as we have deemed appropriate as a basis for the conclusion hereinafter expressed. As to facts material to the views expressed herein, we have, with your consent, relied upon oral or written statements or representations of officers or other representatives or agents of or consultants to the City and of or to the Municipal Employees' Annuity and Benefit Fund of Chicago, the Policemen's Annuity and Benefit Fund of Chicago, the Firemen's Annuity and Benefit Fund of Chicago, and the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (collectively, the "*Retirement Funds*"), including the representations and warranties of the City in the Bond Purchase Agreement dated March 26, 2019, with respect to the Bonds, between the City and Barclays Capital Inc., on behalf of itself and the other underwriters named therein (collectively, the "*Underwriters*"). We have not independently verified such matters. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Official Statement.

In arriving at the conclusion hereinafter expressed, we are not expressing any opinion or view on, and with your permission are assuming and relying on, the validity, accuracy and sufficiency of the records, reports, documents, certificates and opinions referred to above (including the accuracy of all factual matters represented and legal conclusions contained therein, including, without limitation, any representations and legal conclusions regarding the due authorization, issuance, delivery, validity and enforceability of the Bonds, the tax treatment of interest on the Bonds for federal income tax purposes, and the application of Bond proceeds in accordance with the authorization therefor). We have assumed that all records, reports, documents, certificates and opinions that we have reviewed, and the signatures thereto, are genuine.

We are not passing upon, and do not assume any responsibility for, the accuracy, completeness or fairness of any of the statements contained in the Pension Section and make no representation that we have independently verified the accuracy, completeness or fairness of any such statements. In our capacity as special disclosure counsel to the City, to assist you in discharging your responsibility with respect to the Pension Section, we participated in conferences and correspondence with representatives of the City, the City's attorneys, Disclosure Counsel to the City, the Underwriters, counsel to the Underwriters, and other persons involved in the preparation of information for the Pension Section, during which the contents of the Pension Section and related matters were discussed and revised. The purpose of our professional engagement was not to establish or confirm factual matters set forth in the Pension Section, and we have not undertaken any obligation to verify independently any of the factual matters set forth therein. Moreover, many of the determinations required to be made in the preparation of the Pension Section involve matters of a non-legal nature. Based on our participation in the above-mentioned conferences and correspondence, and in reliance thereon and on our limited review of the records, reports, documents, certificates, statements, representations, warranties, opinions and matters mentioned above, without independent verification, we advise you as a matter of fact and not opinion that, during our engagement as special disclosure counsel to the City in connection with the Pension Section, no facts came to the attention of the attorneys in our firm rendering legal services in connection with such limited role which caused us to believe that the Pension Section (apart from the financial statements or other financial, operating, numerical, accounting or statistical data or forecasts, estimates, projections, assumptions or expressions of opinion, or matters of litigation contained or incorporated therein, as to which we do not express any conclusion or belief) contained as of the dates of the Preliminary Official Statement and the Official Statement or contains as of the date hereof any untrue statement of a material fact or omitted or omits to state a material fact required to be stated therein or necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. No responsibility is undertaken or statement rendered herein with respect to any other portions of the Preliminary Official Statement or the Official Statement or any other disclosure document, materials or activity, or as to any information from another document or source referred to by or incorporated by reference in the Preliminary Official Statement or the Official Statement.

By acceptance of this letter you recognize and acknowledge that: (i) the preceding paragraph is not a legal opinion but is rather in the nature of negative observations based on certain limited activities performed by specific lawyers in our firm during our engagement to the City as special disclosure counsel in connection with the Pension Section; (ii) the scope of those activities performed by us for purposes of delivering this letter was inherently limited and does not purport to encompass all activities necessary for compliance with applicable securities laws; and (iii) those activities performed by us rely on third party representations, warranties, certifications, statements and opinions, including and primarily, representations, warranties and certifications made by the City, and are otherwise subject to the conditions set forth herein.

We express herein no opinion or belief herein with respect to the validity of the Bonds or the taxation thereof or of the interest thereon, and our expression of belief with respect to the Pension Section assumes the validity of the Bonds and the tax treatment of the interest payable thereon for federal income tax purposes, all as set forth in the opinions of Co-Bond Counsel.

This letter is furnished by us in our limited capacity as special disclosure counsel to the City in connection with the Pension Section. This letter may not be used, quoted, relied upon or otherwise referred to for any other purpose or by any other person (including any person purchasing any of the Bonds from the Underwriters) without our prior written consent, except that such letter may be referenced in the Preliminary Official Statement, the Official Statement and the Bond Purchase Agreement with respect to the Bonds and included in the transcript of proceedings for the Bonds. This letter is given as of the date hereof and we assume no obligation to revise or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention.

Respectfully submitted,

## LETTER TO UNDERWRITERS

\_\_\_\_\_, 2019

Barclays Capital Inc.  
as Representative of the Underwriters  
named in the Bond Purchase Agreement  
described below

Re: \$721,980,000. City of Chicago  
General Obligation Bonds, Series 2019A

Ladies and Gentlemen:

We have acted as special disclosure counsel to the City of Chicago (the "City"), solely in connection with the information contained under the captions "PENSION BENEFITS PROVIDED BY THE CITY" and "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS" (together, the "*Pension Section*") of the Preliminary Official Statement dated March 18, 2019, as (the "*Preliminary Official Statement*") and the Official Statement dated March 26, 2019 (the "*Official Statement*"), relating to the General Obligation Bonds, Series 2019A (the "*Bonds*") issued by the City on this date.

In accordance with our understanding with the City, we have reviewed the Pension Section, certificates of officers of the City and other appropriate persons, and such other records, reports, opinions and documents, and we have made such investigations of law, as we have deemed appropriate as a basis for the conclusion hereinafter expressed. As to facts material to the views expressed herein, we have, with your consent, relied upon oral or written statements or representations of officers or other representatives or agents of or consultants to the City and of or to the Municipal Employees' Annuity and Benefit Fund of Chicago, the Policemen's Annuity and Benefit Fund of Chicago, the Firemen's Annuity and Benefit Fund of Chicago, and the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (collectively, the "*Retirement Funds*"), including the representations and warranties of the City in the Bond Purchase Agreement dated March 26, 2019, with respect to the Bonds, between the City and Barclays Capital Inc., on behalf of itself and the other underwriters named therein (collectively, the "*Underwriters*"). We have not independently verified such matters. Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Official Statement.

In arriving at the conclusion hereinafter expressed, we are not expressing any opinion or view on, and with your permission are assuming and relying on, the validity, accuracy and sufficiency of the records, reports, documents, certificates and opinions referred to above (including the accuracy of all factual matters represented and legal

conclusions contained therein). We have assumed that all records, reports, documents, certificates and opinions that we have reviewed, and the signatures thereto, are genuine.

We are not passing upon, and do not assume any responsibility for, the accuracy, completeness or fairness of any of the statements contained in the Pension Section and make no representation that we have independently verified the accuracy, completeness or fairness of any such statements. In our capacity as special disclosure counsel to the City, to assist it in discharging its responsibility with respect to the Pension Section, we participated in conferences and correspondence with your representatives, representatives of the City, the City's attorneys, Disclosure Counsel to the City, counsel to the Underwriters, and other persons involved in the preparation of information for the Pension Section, during which the contents of the Pension Section and related matters were discussed and revised. The purpose of our professional engagement was not to establish or confirm factual matters set forth in the Pension Section, and we have not undertaken any obligation to verify independently any of the factual matters set forth therein. Moreover, many of the determinations required to be made in the preparation of the Pension Section involve matters of a non-legal nature. Based on our participation in the above-mentioned conferences and correspondence, and in reliance thereon and on our limited review of the records, reports, documents, certificates, statements, representations, warranties, opinions and matters mentioned above, without independent verification, we advise you as a matter of fact and not opinion that, during our engagement as special disclosure counsel to the City in connection with the Pension Section, no facts came to the attention of the attorneys in our firm rendering legal services in connection with such limited role which caused us to believe that the Pension Section (apart from the financial statements or other financial, operating, numerical, accounting or statistical data or forecasts, estimates, projections, assumptions or expressions of opinion, or matters of litigation contained or incorporated therein, as to which we do not express any conclusion or belief) contained as of the dates of the Preliminary Official Statement and the Official Statement or contains as of the date hereof any untrue statement of a material fact or omitted or omits to state a material fact required to be stated therein or necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. No responsibility is undertaken or statement rendered herein with respect to any other portions of the Preliminary Official Statement or the Official Statement or any other disclosure document, materials or activity, or as to any information from another document or source referred to by or incorporated by reference in the Preliminary Official Statement or the Official Statement.

By acceptance of this letter you recognize and acknowledge that: (i) the preceding paragraph is not a legal opinion but is rather in the nature of negative observations based on certain limited activities performed by specific lawyers in our firm during our engagement to the City as special disclosure counsel in connection with the Pension Section; (ii) the scope of those activities performed by us for purposes of delivering this letter was inherently limited and does not purport to encompass all activities necessary for compliance with applicable securities laws; (iii) those activities performed by us rely on third party representations, warranties, certifications, statements and opinions, including and primarily, representations, warranties and certifications made by the City, and are

otherwise subject to the conditions set forth herein; (iv) we have not been engaged to act, and have not acted, as your counsel for any purpose in connection with the issuance of the Bonds; (v) no attorney-client relationship exists or has at any time existed between us in connection with the Bonds or by virtue of this letter; and (vi) this letter is based upon our review of proceedings and other documents undertaken as part of our engagement with the City, and in order to deliver this letter we neither undertook any duties or responsibilities to you nor conducted any activities in addition to those undertaken or conducted for the benefit of, and requested by, the City. Consequently, we make no representation that our review has been adequate for your purposes.

We express herein no opinion or belief herein with respect to the validity of the Bonds or the taxation thereof or of the interest thereon, and our expression of belief with respect to the Pension Section assumes the validity of the Bonds and the tax treatment of the interest payable thereon for federal income tax purposes, all as set forth in the opinions of Co-Bond Counsel.

This letter is furnished by us in our limited capacity as special disclosure counsel to the City in connection with the Pension Section and is solely for the benefit of the Underwriters. This letter may not be used, quoted, relied upon or otherwise referred to for any other purpose or by any other person (including any person purchasing any of the Bonds from the Underwriters) without our prior written consent, except that such letter may be referenced in the Preliminary Official Statement, the Official Statement and the Bond Purchase Agreement with respect to the Bonds and included in the transcript of proceedings for the Bonds. This letter is given as of the date hereof and we assume no obligation to revise or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention.

Respectfully submitted,

**EXHIBIT C**  
**OPINION OF CORPORATION COUNSEL OF THE CITY**

April 10, 2019

Barclays Capital Inc., as Representative  
of the Underwriters named in the Bond  
Purchase Agreement, dated March 26,  
2019, between such Underwriters and  
the City of Chicago

Ladies and Gentlemen:

This opinion is given to you pursuant to Section 10(1)(v) of that certain Bond Purchase Agreement dated March 26, 2019 (the "Bond Purchase Agreement"), between the City of Chicago (the "City") and Barclays Capital Inc., as representative of a group of underwriters (the "Representative"), with respect to the purchase of the City of Chicago General Obligation Bonds, Series 2019A between the City and the Representative (the "Bonds"). The Bonds are being issued in accordance with the Trust Indenture between the City and Amalgamated Bank of Chicago, as trustee (the "Trustee") dated as of April 1, 2019 (the "Indenture"). The Bonds are authorized by an ordinance of the City adopted by the City Council of the City (the "City Council") on March 13, 2019 (the "Ordinance"). Unless otherwise defined herein, capitalized terms used herein shall have the meanings assigned to them in the Bond Purchase Agreement.

In connection with the issuance of the Bonds, I have caused to be examined a certified copy of the record of proceedings of the City Council pertaining to the issuance of the Bonds by the City, and executed counterparts, where applicable, of the following documents:

- (a) the Ordinance;
- (b) the Indenture;
- (c) the Preliminary Official Statement dated March 18, 2019 relating to the Bonds;
- (d) the Official Statement dated March 26, 2019 relating to the Bonds;

- (e) the Bond Purchase Agreement; and
- (d) that certain Continuing Disclosure Undertaking dated the date hereof pursuant to the requirements of Section (b)(5) of Rule 15c-12 of the Securities and Exchange Commission (the "Undertaking").

On the basis of such examination and review of such other information, records and documents as was deemed necessary or advisable, I am of the opinion that:

1. The City is a home rule unit of local government duly organized and existing under the Constitution and laws of the State of Illinois with full power and authority, among other things, to adopt the Ordinance, to authorize the issuance of the Bonds, and to execute and deliver the Indenture, the Bond Purchase Agreement and the Undertaking.

2. The Bond Purchase Agreement, the Indenture, and the Undertaking have been duly authorized, executed and delivered by, and the Ordinance has been duly adopted by, the City, and, assuming the due execution and delivery by the other parties thereto, as appropriate, such instruments constitute legal and valid obligations of the City in each case enforceable in accordance with their respective terms except as may be limited by bankruptcy, insolvency and other laws affecting creditors' rights or remedies and the availability of equitable remedies generally.

3. To my knowledge, compliance with the provisions of the Bonds, the Ordinance, the Indenture, the Bond Purchase Agreement and the Undertaking does not conflict in a material manner with, or constitute a material breach of or material default under, any applicable law, administrative regulation, court order or consent decree of the State of Illinois, or any department, division, agency or instrumentality thereof or of the United States of America or any ordinance, agreement or other instrument to which the City is a party or is otherwise subject.

4. To my knowledge, all approvals, consents and orders of and filings (except with respect to state "blue sky" or securities laws) with any governmental authority, board, agency or commission having jurisdiction which would constitute conditions precedent to the performance by the City of its obligations under the Ordinance, the Indenture, the Bond Purchase Agreement, the Undertaking and the Bonds have been obtained.

5. There is no litigation or proceeding pending, or to my knowledge, threatened, materially affecting the existence of the City or seeking to restrain or enjoin the issuance of the Bonds, or contesting the validity or enforceability of the Bonds, the Ordinance, the Indenture, the Bond Purchase Agreement or the Undertaking or the completeness or accuracy of the Preliminary Official Statement, as of its date, or the Official Statement, or contesting the powers of the City or its authority with respect to the Bonds, the Ordinance, the Indenture, the Bond Purchase Agreement or the Undertaking.

Nothing has come to my attention which would lead me to believe that the Preliminary Official Statement, as of its date, or the Official Statement (excluding information under the captions "RATINGS," "UNDERWRITING," "TAX MATTERS," "APPENDIX C – CITY OF CHICAGO BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017 and "APPENDIX E -- OPINIONS OF CO-BOND COUNSEL," and "APPENDIX F"- Book-Entry Only System" relating to the Depository Trust Company ("DTC"), information sourced to sources other than the City or departments thereof, any information in or omitted from the Preliminary Official Statement or the Official Statement relating to DTC, any information in or omitted from the Preliminary Official Statement or the Official Statement relating to any information furnished by the Underwriters for use in the Preliminary Official Statement and the Official Statement, the financial statements and all other financial and statistical data contained in the Preliminary Official Statement and the Official Statement, including the Appendices thereto, or information designated as preliminary or permitted to be omitted from the Preliminary Official Statement pursuant to Rule 15c2-12) contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading in any material respect.

No opinion is expressed as to any "blue sky" or other securities laws or as to the laws regarding taxation of any state or the United States of America, or any disclosure or compliance related thereto.

The statements contained herein are made in an official capacity and not personally and no personal responsibility shall derive from them. Further, the only opinions that are expressed are the opinions specifically set forth herein, and no opinion is implied or should be inferred as to any other matter or transaction.

No one other than you shall be entitled to rely on this opinion.

Very truly yours,

Edward N. Siskel  
Corporation Counsel

**EXHIBIT D**  
**OPINION OF DISCLOSURE COUNSEL**

April \_\_\_, 2019

**CITY OF CHICAGO**  
**\$721,980,000**  
**General Obligation Bonds,**  
**Series 2019A**

City of Chicago  
Chicago, Illinois

Barclays Capital Inc., as Representative of the Underwriters  
Chicago, Illinois

Ladies and Gentlemen:

We have acted as disclosure counsel in connection with the issuance of the above-referenced bonds (the “*2019A Bonds*”) pursuant to a Bond Purchase Agreement dated March 26, 2019 (the “*Bond Purchase Agreement*”) by and between the City of Chicago (the “*City*”) and Barclays Capital Inc., (the “*Representative*”) on behalf of itself and the other underwriters named in the Bond Purchase Agreement (the “*Underwriters*”). In connection with the issuance of the 2019A Bonds and in accordance with our understanding with the City, we rendered legal advice and assistance to the City in the course of the City’s preparation and review of the Preliminary Official Statement of the City dated March 18, 2019 (the “*Preliminary Official Statement*”), relating to the 2019A Bonds and the Official Statement dated March 26, 2019 (the “*Official Statement*”), relating to the 2019A Bonds.

In the course of such participation we have reviewed information furnished to us by, and have participated in conferences with, the City’s representatives, the City’s Corporation Counsel, and the City’s finance department; Columbia Capital Management LLC and Swap Financial Group, as the City’s co-financial advisors (the “*Financial Advisors*”); the Representative; Miller, Canfield Paddock & Stone P.L.C and Zuber Lawler & Del Duca LLP, as co-bond counsel (“*Co-Bond Counsel*”); Katten Muchin Rosenman LLP, as underwriters’ counsel (“*Underwriters’ Counsel*”); and Chapman and Cutler LLP, as the City’s special disclosure counsel (“*Special Disclosure Counsel*”). We have also reviewed certain documents, certificates and opinions delivered to the Purchasers and the City in connection with the issuance of the 2019A Bonds and other documents and records

relating to the issuance and sale of the 2019A Bonds. In addition, we have relied upon statements, certificates and letters of the City's officials, the City's finance department, the City's Corporation Counsel, Co-Bond Counsel, Underwriters' Counsel, Special Disclosure Counsel, the Purchasers, and the Co-Financial Advisors. However, we have not independently investigated or verified the accuracy, completeness or fairness of any of the statements included in the Preliminary Official Statement or the Official Statement. In addition, we have assumed the genuineness of all signatures, the legal capacity of all individuals who have executed documents reviewed by us, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as certified, photostatic, reproduced, electronic or conformed copies.

Based solely on the foregoing, we advise that, (i) we are of the opinion that: (A) the 2019A Bonds are exempt from registration pursuant to the Securities Act of 1933, as amended, and it is not necessary in connection with the public offering and sale of the 2019A Bonds to register any security under the Securities Act of 1933, as amended and no ordinance or indenture in respect of the 2019A Bonds is required to be qualified under the Indenture Act of 1939, as amended, (B) the Continuing Disclosure Undertaking described in the Preliminary Official Statement and in the Official Statement, in that form as executed by the City, complies with the requirements of paragraph (b)(5) of Rule 15c2-12 in effect as of the date of the Closing, and (ii) although, during the course of the activities described in the preceding paragraph, we have made no independent investigation or verification of the accuracy, fairness or completeness of, and do not pass upon or assume any responsibility for, the statements included in the Preliminary Official Statement and in the Official Statement, nothing has come to our attention which would lead us to believe that the Preliminary Official Statement, as of its date, or the Official Statement in each case including the Appendices thereto (but excluding any information sourced to sources other than the City or departments thereof, or provided by or omitted from the Preliminary Official Statement or the Official Statement by the Underwriters relating to information furnished by the Underwriters for use therein, the financial statements and other financial and statistical data contained therein, including APPENDICES B and, C, the information contained in the Preliminary Official Statement and the Official Statement under the headings "PENSION BENEFITS PROVIDED BY THE CITY", and OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS," the descriptions of DTC and the DTC Book-Entry System, including references thereto in "THE BONDS—General" and APPENDIX F—"BOOK ENTRY ONLY SYSTEM", and the information included under the captions "RATINGS," "INDEPENDENT AUDITORS," "FINANCIAL ADVISORS AND INDEPENDENT REGISTERED MUNICIPAL ADVISORS," "UNDERWRITING," "APPROVAL OF LEGAL MATTERS", except as it relates to this letter, and "TAX MATTERS," any other information therein relating to the tax exempt status of the 2019A Bonds, including APPENDIX E, or information designated as preliminary or permitted to be omitted from the Preliminary Official Statement pursuant to Rule 15c2-12, as to any of which no view is expressed,), contains an untrue statement of a material fact or omits to state a material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading.

This letter is issued to and for the sole benefit of the above addressees and is issued

for the sole purpose of the transaction specifically referred to herein. No person other than the above addressees may rely upon this letter without our express prior written consent. This letter may not be utilized for any other purpose whatsoever and may not be quoted without our express prior written consent. We assume no obligation to review or supplement this letter subsequent to its date, whether by reasons of a change on any information contained in the Official Statement, in the current laws, by legislative or regulatory action, by judicial decision or for any other reason.

In further accordance with our understanding with you, we express no opinion or belief with respect to the validity or enforceability of the 2019A Bonds or the taxation thereof or of the interest thereon, and our expression of belief with respect to the Preliminary Official Statement and Official Statement assume the validity and enforceability of the 2019A Bonds in accordance with their terms and the exclusion of the interest payable thereon from gross income for federal income tax purposes, all as set forth in the opinion of Co-Bond Counsel.

The statements made and opinions expressed herein are an expression of the professional judgment of the attorneys participating in the transaction as to the matters addressed herein. By making such statements and rendering such opinions, the undersigned does not become an insurer or guarantor of that expression of professional judgment, of the transaction opined upon, or of the outcome of any legal dispute that may arise out of the transaction.

We express no opinion as to the laws of any jurisdiction other than laws of the State of Illinois (except that we express no opinion as to any choice of law provisions thereof) and the Federal laws of the United States of America to the extent cited herein. The foregoing opinions and Statement are based upon such laws as are in effect on the date hereof, and we assume no obligation to advise you or review or supplement this letter subsequent to its date, whether by reasons of a change on any of the information contained in the Official Statement or in the current laws, by legislative or regulatory action, by judicial decision or for any other reason and we expressly disclaim any undertaking to advise you of any subsequent changes therein.

Respectfully,

## EXHIBIT E

### REPRESENTATION LETTER

City of Chicago Department of Finance 121 North LaSalle Street, 7 <sup>th</sup> Floor Chicago, Illinois 60602 Attn.: Deputy Comptroller of Financial Policy	Barclays Capital Inc., as Representative of the Underwriters named in the Bond Purchase Agreement, dated March 26, 2019, between such Underwriters and the City of Chicago
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Pursuant to the Bond Purchase Agreement dated March 26, 2019 (the “Bond Purchase Agreement”), among the City of Chicago (the “City”), Barclays Capital Inc., as representative (the “Representative”) of the underwriters named therein (each an “Underwriter”) relating to the City’s General Obligation Bonds, Series 2019A (the “2019A Bonds”) and each of the undersigned Underwriters severally represents to the City that:

(1) It is registered and in good standing under the Securities Exchange Act of 1934, as amended (the “1934 Act”), as a municipal securities dealer.

(2) Neither the Representative nor any of the other Underwriters, nor any Affiliate of any of them, is listed on any of the following lists maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the Bureau of Industry and Security of the U.S. Department of Commerce, the U.S. Department of State or their successors, or on any other list of persons or entities with which the City may not do business under any applicable law, rule, regulation, order or judgment: the Specially Designated Nationals List, the Denied Persons List, the Unverified List, the Entity List, the List of Statutorily Debarred Parties and the Excluded Parties List.

*For purposes of this representation, “Affiliate,” when used to indicate a relationship with a specified person or entity, means a person or entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such specified person or entity, and a person or entity shall be deemed to be controlled by another person or entity, if controlled in any manner whatsoever that results in control in fact by that other person or entity (or that other person or entity and any persons or entities with whom that other person or entity is acting jointly or in concert), whether directly or indirectly and whether through share ownership, a trust, a contract or otherwise.*

(3) The undersigned Underwriters agree that in the event that any Underwriter or any of its Affiliates appears on any of the lists described in paragraph (2) above, at any time prior to the Closing (as defined in the Purchase Agreement) with respect to the 2019A Bonds, that Underwriter shall be deemed to have submitted to the Representative its Withdrawal From Agreement Among Underwriters.

(4) Each undersigned Underwriter understands and agrees that it is required to and will comply with the provisions of Chapter 2-56 of the Municipal Code of Chicago. Pursuant to Section 2-56-090 of the Municipal Code of Chicago, it shall be the duty of each Underwriter to cooperate with the inspector general in any investigation or hearing undertaken pursuant to Chapter 2-56. Every Underwriter shall report, directly and without undue delay, to the City's inspector general any and all information concerning conduct by any person which such Underwriter knows to involve corrupt activity, pursuant to Section 2-156-018(b) of the Municipal Code of Chicago. Any Underwriter's knowing failure to report corrupt activity as required in subsection (b) of Section 2-156-018 of the Municipal Code of Chicago, shall constitute an event of default under the Bond Purchase Agreement. For purposes of subsection (b) of Section 2-156-018 of the Municipal Code of Chicago, "corrupt activity" shall mean any conduct set forth in subparagraph (a)(1), (2) or (3) of Section 1-23-020 of the Municipal Code of Chicago:

- (i) bribery or attempted bribery, or its equivalent under any local, state or federal law, of any public officer or employee of the City or of any sister agency; or
- (ii) theft, fraud, forgery, perjury, dishonesty or deceit, or attempted theft, fraud, forgery, perjury, dishonesty or deceit, or its equivalent under any local, state or federal law, against the City or of any sister agency; or
- (iii) conspiring to engage in any of the acts set forth in items (i) or (ii) of above.

The Underwriters (individually and collectively) agree and covenant that no payment, gratuity or offer of employment shall be made in connection with the Bond Purchase Agreement, by or on behalf of a subcontractor to the Underwriter or any higher-tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order related to this Bond Purchase Agreement.

*[Signature page follows]*

IN WITNESS WHEREOF, the parties hereto have caused this Representation Letter in connection with the 2019A Bonds to be executed by their duly authorized representatives as of the date written below.

March 26, 2019

BARCLAYS CAPITAL INC.	CABRERA CAPITAL MARKETS, LLC.
By: _____ Its: _____	By: _____ Its: _____
IFS SECURITIES, INC.	MISCHLER FINANCIAL GROUP, INC.
By: _____ Its: _____	By: _____ Its: _____
NORTH SOUTH CAPITAL LLC	RAMIREZ & CO., INC.
By: _____ Its: _____	By: _____ Its: _____
RICE FINANCIAL PRODUCTS COMPANY	
By: _____ Its: _____	

## EXHIBIT F

### ISSUE PRICE CERTIFICATE OF THE REPRESENTATIVE

[Date of Closing]

The undersigned, Barclays Capital Inc. (the “*Representative*”), acting on behalf of itself and as representative of the underwriters (the “*Underwriting Group*”), hereby certifies as set forth below in connection with the issuance on the date hereof by the City of Chicago (the “*City*”) of its \$721,980,000 General Obligation Bonds, Series 2019A (the “*2019A Bonds*”).

1. *Sale of the General Rule Maturities.* As of the Sale Date, for each Maturity of the General Rule Maturities, the first price at which at least 10% of such Maturity was sold to the Public is the respective price listed in Schedule A.
2. *Initial Offering Price of the Hold-the-Offering-Price Maturities.*
  - (a) The Underwriting Group offered the Hold-the-Offering-Price Maturities to the Public for purchase at the respective initial offering prices listed in Schedule A (the “*Initial Offering Prices*”) on or before the Sale Date. A copy of the pricing wire or equivalent communication for the 2019A Bonds is attached to this certificate as Schedule B.
  - (b) As set forth in the Bond Purchase Agreement dated March 26, 2019 between the City and the Representative, the members of the Underwriting Group have agreed in writing that, (i) for each Maturity of the Hold-the-Offering-Price Maturities, they would neither offer nor sell any of the 2019A Bonds of such Maturity to any person at a price that is higher than the Initial Offering Price for such Maturity during the Holding Period for such Maturity (the “*hold-the-offering-price rule*”), and (ii) any selling group agreement shall contain the agreement of each dealer who is a member of the selling group, and any retail distribution agreement shall contain the agreement of each broker-dealer who is a party to the retail distribution agreement, to comply with the hold-the-offering-price rule. Pursuant to such agreement, no Underwriter (as defined below) has offered or sold any Maturity of the Hold-the-Offering-Price Maturities at a price that is higher than the respective Initial Offering Price for that Maturity of the 2019A Bonds during the Holding Period.
3. *Defined Terms.* The terms used herein and including the schedules attached hereto shall, except as set forth below, have the meanings assigned to them in the Tax Agreement to which this Issue Price Certificate of the Representative is attached.
  - (a) “*General Rule Maturities*” means those Maturities of the 2019A Bonds other than the Hold-the-Offering-Price Maturities.
  - (b) “*Hold-the-Offering-Price Maturities*” means the 2019A Bonds maturing \_\_\_\_\_.

- (c) "*Holding Period*" means, with respect to a Hold-the-Offering-Price Maturity, the period starting on the Sale Date and ending on the earlier of (i) the close of the fifth business day after the Sale Date, [\_\_\_\_], 2019, or (ii) the date on which the Underwriters have sold at least 10% of such Hold-the-Offering-Price Maturity to the Public at prices that are no higher than the Initial Offering Price for such Hold-the-Offering-Price Maturity.
- (d) "*Maturity*" means 2019A Bonds with the same credit and payment terms. 2019A Bonds with different maturity dates, or 2019A Bonds with the same maturity date but different stated interest rates, are treated as separate Maturities.
- (e) "*Public*" means any person (including an individual, trust, estate, partnership, association, company, or corporation) other than an Underwriter or a related party to an Underwriter. The term "related party" for purposes of this certificate generally means any two or more persons who have greater than 50 percent common ownership, directly or indirectly.
- (f) "*Sale Date*" means [\_\_\_\_], 2019, the first day on which there was a binding contract in writing for the sale of a Maturity of the 2019A Bonds.
- (g) "*Underwriter*" means (i) any person that agrees pursuant to a written contract with the City (or with the lead underwriter to form an underwriting syndicate) to participate in the initial sale of the 2019A Bonds to the Public, and (ii) any person that agrees pursuant to a written contract directly or indirectly with a person described in clause (i) of this paragraph to participate in the initial sale of the 2019A Bonds to the Public (including a member of a selling group or a party to a retail distribution agreement participating in the initial sale of the 2019A Bonds to the Public).

4. *Additional Information.*

- (a) We have been asked to calculate the arbitrage yield of the 2019A Bonds by determining the discount rate that, when used in computing the present value as of this date of all unconditionally payable payments of principal and interest produces an amount equal to the present value, using the same discount rate, of the aggregate Issue Price of the 2019A Bonds, plus accrued interest, as of this date. [For this purpose, the 2019A Bonds maturing in the years 20\_\_ through 20\_\_, inclusive, have been treated as being redeemed on \_\_\_\_\_, 20\_\_, at par, which is the retirement alternative that results in the lowest yield for each Maturity.] Based solely on this calculation, the arbitrage yield of the 2019A Bonds is \_\_\_\_%.
- (b) The CUSIP number for the final maturity of the 2019A Bonds is: 167486E39

The representations set forth in this Issue Price Certificate of the Representative are limited to factual matters only. Nothing in this Certificate of the Representative represents the Representative's interpretation of any laws, including specifically Sections 103 and 148 of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations thereunder. The undersigned understands that the foregoing information will be relied on by the City with respect

to certain of the representations set forth in the Tax Agreement to which this Issue Price Certificate of the Representative

is attached and with respect to compliance with the federal income tax rules affecting the 2019A Bonds, and by Miller Canfield, Paddock and Stone, P.L.C., Chicago, Illinois, and Zuber Lawler & Del Duca LLP, Chicago, Illinois in connection with rendering their opinions that the interest on the 2019A Bonds is excluded from gross income for federal income tax purposes, the preparation of the Internal Revenue Service Form 8038-G, and other federal income tax advice that it may give to the City from time to time relating to the 2019A Bonds.

IN WITNESS WHEREOF, the undersigned, on behalf of the Representative, has set his or her hand as of the date first written above.

BARCLAYS CAPITAL INC.,  
as Representative of the Underwriters

By:

Name: \_\_\_\_\_  
Title



## EXHIBIT G

**CITY OF CHICAGO  
\$721,980,000  
General Obligation Bonds, Series 2019A**

### CERTIFICATE OF REPRESENTATIVE

This certificate is being provided pursuant to Section 12 of the Bond Purchase Agreement, dated March 26, 2019 (the “*Bond Purchase Agreement*”), relating to the City of Chicago’s \$721,980,000 aggregate principal amount of General Obligation Bonds, Series 2019A (the “*2019A Bonds*”) by and between the City of Chicago (the “*City*”) and Barclays Capital Inc., on its own behalf and as representative (the “*Representative*”) of the underwriters (the “*Underwriters*”) under the Bond Purchase Agreement. Terms used in this Certificate of Representative that are defined in the Bond Purchase Agreement have the meanings ascribed to them in the Bond Purchase Agreement.

The undersigned as a duly authorized and acting officer of the Representative for itself and as representative of the other Underwriters, hereby certifies for itself and each Underwriter listed in the Bond Purchase Agreement that:

1. The Representative has full right, power and authority to enter into, execute and deliver the Bond Purchase Agreement, and each of the Representative and the Underwriters has full power and authority to perform each and all of the matters and things provided for therein.
2. The Bond Purchase Agreement has been duly executed and delivered by an authorized officer of the Representative and is the legal, valid and binding obligation of the Underwriters, enforceable against the Underwriters in accordance with its respective terms, except as limited by (i) bankruptcy, insolvency, readjustment of debt, liquidation, reorganization, moratorium and other laws relating to, or affecting generally, the enforcement of creditors' rights and remedies; (ii) the availability against the Underwriters of equitable remedies, including specific performance and injunctive relief and (iii) applicable securities laws with respect to the enforceability of rights to indemnification and contribution.
3. The representations and warranties of the Underwriters contained in the Bond Purchase Agreement are true and correct in all material respects on and as of the date hereof with the same effect as if made on the date hereof.
4. There is no action, suit, proceeding, inquiry or investigation at law or in equity before or by any public board or body pending or, to the best of the knowledge of the

undersigned, threatened, against or affecting the Underwriters that (i) affects, directly or indirectly, the validity of the Bond Purchase Agreement or restrains, enjoins or in any manner affects the execution and delivery thereof; (ii) affects the provisions made for the Underwriters to act as underwriters of the Bonds under the Bond Purchase Agreement; (iii) affects, in any way, the right or the authority of the Underwriters to carry out the terms or provisions of the Bond Purchase Agreement and the covenants and agreements therein; (iv) affects the respective corporate existence of each Underwriter; or (v) adversely affects the transactions described in the Bond Purchase Agreement.

5. The information relating to the Underwriters and the responsibilities of the Underwriters contained under the caption "UNDERWRITING" in the Preliminary Official Statement dated March 18, 2019 and in the Official Statement dated March 26, 2019, of the City is true, correct and accurate.

6. No approval, consent or authorization of any governmental agency or authority is required to be obtained by the Representative or any Underwriter in connection with the Representative's execution and delivery of the Bond Purchase Agreement and the performance of the duties thereunder by the Underwriters, except for such other approvals that will be obtained as required or, if not obtained, could not result in a material adverse effect on the ability of the Underwriters to perform their obligations under the Bond Purchase Agreement.

7. The undersigned hereby certifies that it filed a copy of the Official Statement of the City dated March 26, 2019 with respect to the 2019A Bonds with the Electronic Municipal Market Access System of the Municipal Securities Rulemaking Board on or prior to the date hereof.

8. The Underwriters have received all instruments and documents in form and substance satisfactory to the Representative that are required to be delivered pursuant to the Bond Purchase Agreement on the date hereof and all conditions to the delivery and payment for the Bonds pursuant to the Bond Purchase Agreement have been satisfied.

[SIGNATURE PAGE FOLLOWS]

Dated this \_\_\_\_\_ day of April, 2019

Barclays Capital Inc.,  
as Representative of the Underwriters

By: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT 2**

**OFFICIAL STATEMENT DATED MARCH 26, 2019**

**EXHIBIT 3**

**TRUST INDENTURE**

---

CITY OF CHICAGO

TO

AMALGAMATED BANK OF CHICAGO,  
as Trustee

TRUST INDENTURE

SECURING

CITY OF CHICAGO  
GENERAL OBLIGATION BONDS, SERIES 2019A

Dated as of April 1, 2019

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and is only for convenience of reference)

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## TRUST INDENTURE

THIS TRUST INDENTURE, made and entered into as of April 1, 2019 (this “*Indenture*”), from the CITY OF CHICAGO (the “*City*”), a municipal corporation and home rule unit of local government duly organized and existing under the Constitution and laws of the State of Illinois, to AMALGAMATED BANK OF CHICAGO, CHICAGO, ILLINOIS (the “*Trustee*”), an Illinois banking corporation with trust powers, having a corporate trust office located in the City of Chicago, Illinois, duly organized, validly existing and authorized to accept and execute trusts of the character herein set out under and by virtue of the laws of the United States of America,

### WITNESSETH:

WHEREAS, pursuant to an ordinance duly adopted by the City Council of the City (the “*City Council*”) on March 13, 2019 (the “*Bond Ordinance*”) the City duly authorized the issuance and sale of its General Obligation Bonds, Series 2019A (the “*Bonds*”) in order to provide the funds, together with other available funds, including proceeds of other general obligation bonds, for the purposes of (i) paying a portion of the costs of the 2019A Projects; (ii) retiring all currently outstanding commercial paper notes of the City; (iii) funding certain capitalized interest on the Bonds; and (iv) paying costs of issuance of the Bonds; and

WHEREAS, by virtue of Article VII of the Illinois Constitution of 1970 and pursuant to the Bond Ordinance, the City is authorized to issue the Bonds, enter into this Indenture and to do or cause to be done all the acts and things herein provided or required to be done; and

WHEREAS, the execution and delivery of the Bonds and of this Indenture have in all respects been duly authorized and all things necessary to make such Bonds, when executed by the City and authenticated by the Trustee, the legal, valid and binding obligations of the City and to make this Indenture a legal, valid and binding agreement, have been done; and

WHEREAS, the Bonds, and the Trustee’s Certificate of Authentication to be endorsed on such Bonds, shall be substantially in the form attached hereto as *Exhibit A*, with necessary and appropriate variations, omissions and insertions as permitted or required by this Indenture and the Bond Ordinance;

### NOW, THEREFORE, THIS INDENTURE WITNESSETH:

#### GRANTING CLAUSES

That the City, in consideration of the premises and the acceptance by the Trustee of the trusts hereby created, and of the purchase and acceptance of the Bonds by the Registered Owners thereof, and of the sum of one dollar, lawful money of the United States of America, to it duly paid by the Trustee at or before the execution and delivery of these presents, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, to secure the payment of the principal of, premium, if any, and interest on the Bonds according to their tenor and effect, and to secure the performance and observance by the City of all the covenants expressed or implied herein and in the Bonds, does hereby assign and grant a security interest in and to the following to the Trustee, and its successors in trust and assigns forever, for

the securing of the performance of the obligations of the City hereinafter set forth (the "*Trust Estate*");

### **GRANTING CLAUSE FIRST**

Any moneys, revenues, receipts, income, assets or funds of the City legally available for such purposes, all to the extent provided in this Indenture, including, but not limited to, the proceeds of a direct annual tax levied by the City in the Bond Ordinance upon all taxable property in the City;

### **GRANTING CLAUSE SECOND**

All moneys and securities from time to time held by the Trustee under the terms of this Indenture, except for moneys deposited with or paid to the Trustee and held in trust hereunder for the redemption of Bonds, notice of the redemption of which has been duly given; and

### **GRANTING CLAUSE THIRD**

Any and all other property, rights and interests of every kind and nature from time to time hereafter by delivery or by writing of any kind granted, bargained, sold, alienated, demised, released, conveyed, assigned, transferred, mortgaged, pledged, hypothecated or otherwise subjected hereto, as and for additional security hereunder by the City or by any other person on its behalf or with its written consent to the Trustee, and the Trustee is hereby authorized to receive any and all such property at any and all times and to hold and apply the same subject to the terms hereof;

TO HAVE AND TO HOLD all and singular the Trust Estate, whether now owned or hereafter acquired, unto the Trustee and its successors in said trust and assigns forever;

IN TRUST, NEVERTHELESS, upon the terms and trusts herein set forth for the equal and proportionate benefit, security and protection of all present and future Registered Owners of the Bonds, without privilege, priority or distinction as to the lien or otherwise of any of the foregoing over any other of the foregoing, except to the extent herein otherwise specifically provided;

*PROVIDED, HOWEVER*, that if the City, its successors or assigns shall well and truly pay, or cause to be paid, the principal of, premium, if any, and interest on the Bonds, at the times and in the manner set forth therein according to the true intent and meaning thereof, and shall cause the payments to be made on the Bonds as required herein, or shall provide, as permitted hereby, for the payment thereof, and shall well and truly cause to be kept, performed and observed all of its covenants and conditions pursuant to the terms of this Indenture, and shall pay or cause to be paid to the Trustee all sums of money due or to become due to them in accordance with the terms and provisions hereof, then upon the final payment thereof this Indenture and the rights hereby granted shall cease, determine and be void; otherwise this Indenture shall remain in full force and effect.

THIS INDENTURE FURTHER WITNESSETH, and it is expressly declared, that all Bonds issued and secured hereunder are to be issued, authenticated and delivered, and all said property,

rights and interests and any other amounts hereby assigned and pledged are to be dealt with and disposed of, under, upon and subject to the terms, conditions, stipulations, covenants, agreements, trusts, uses and purposes as herein expressed, and the City has agreed and covenanted, and does hereby agree and covenant, with the Trustee and the respective owners of the Bonds as follows:

## ARTICLE I

### DEFINITIONS AND GENERAL MATTERS

*Section 1.01. Definitions.* All capitalized terms used herein unless otherwise defined shall have the meanings given in the recitals above and the following meanings for purposes of this Indenture:

“*Authorized Denomination*” means \$5,000 and any integral multiple thereof.

“*Authorized Officer*” means (a) the Mayor, the Chief Financial Officer, the City Comptroller or any other official of the City so designated by a Certificate signed by the Mayor or Chief Financial Officer and filed with the Trustee for so long as such designation shall be in effect, and (b) the City Clerk with respect to the certification of any ordinance or resolution of the City Council or any other document filed in his or her office.

“*Beneficial Owner*” means the owner of a beneficial interest in the Bonds registered in the name of Cede & Co., as nominee of DTC (or a successor securities depository or nominee for either of them).

“*Bond Counsel*” means one or more firms of nationally recognized bond counsel designated by the Corporation Counsel of the City.

“*Bond Fund*” means the fund of that name established and described in Section 4.03 hereof.

“*Bondholder*,” “*holder*,” or “*owner of the Bonds*” means the Registered Owner or Beneficial Owner of any Bond, as the case may be.

“*Bond Ordinance*” has the meaning given to such term in the recitals hereto.

“*Bond Register*” means the registration books of the City kept by the Trustee to evidence the registration and transfer of Bonds.

“*Bond Year*” means a 12-month period commencing on January 2 of each calendar year and ending on January 1 of the next succeeding calendar year.

“*Bonds*” means the General Obligation Bonds, Series 2019A issued pursuant to Section 2.01 hereof.

*“Business Day”* means any day other than (i) a Saturday or Sunday, (ii) a day on which banks located in the city where the Designated Corporate Trust Office is located are authorized or required by law to close, and (iii) a day on which The New York Stock Exchange, Inc., is closed.

*“Certificate”* means an instrument of the City in writing signed by an Authorized Officer. Any such instrument in writing and supporting opinions or representations, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined shall be read and construed so as to form a single instrument. Any such instrument may be based, insofar as it relates to legal, accounting or engineering matters, upon the opinion or representation of counsel, accountants, or engineers, respectively, unless the officer signing such instrument knows that the opinion or representation with respect to the matters upon which such instrument may be based, as aforesaid, is erroneous. The same Authorized Officer, or the same counsel or accountant or other persons, as the case may be, need not certify to all of the matters required to be certified under any provision of this Indenture or any Supplemental Indenture, but different officers, counsel, accountants or other persons may certify to different facts, respectively.

*“Chief Financial Officer”* means the Chief Financial Officer appointed by the Mayor, or the City Comptroller of the City at any time a vacancy exists in the office of the Chief Financial Officer.

*“City”* means the City of Chicago, a municipal corporation and home rule unit of local government, organized and existing under the Constitution and laws of the State.

*“City Clerk”* means the duly qualified and acting City Clerk of the City or any Deputy City Clerk or other person that may lawfully take a specific action or perform a specific duty prescribed for the City Clerk pursuant to the Bond Ordinance.

*“City Comptroller”* meant the City Comptroller of the City.

*“Code”* means the United States Internal Revenue Code of 1986. References to the Code and to Sections of the Code shall include relevant final, temporary or proposed regulations thereunder as in effect from time to time and as applicable to obligations issued on the Date of Issuance.

*“Date of Issuance”* means April 10, 2019, the date of issuance and delivery of the Bonds to the initial purchasers thereof.

*“Defeasance Obligations”* means: (A) direct obligations of the United States of America; (B) obligations of agencies of the United States of America, the timely payment of principal of and interest on which are guaranteed by the United States of America; (C) obligations of the following government-sponsored agencies that are not backed by the full faith and credit of the U.S. Government: Federal Home Loan Mortgage Corp. (FHLMC) debt obligations, Farm Credit System (formerly: Federal Land Banks, Federal Intermediate Credit Banks, and Banks for Cooperatives) debt obligations, Federal Home Loan Banks (FHL Banks) debt obligations, Fannie

Mae debt obligations, Financing Corp. (FICO) debt obligations, Resolution Funding Corp. (REFCORP) debt obligations, and U.S. Agency for International Development (U.S. A.I.D.) Guaranteed notes; (D) 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; or (E) instruments evidencing an ownership interest in obligations described in the preceding clauses (A), (B) and (C).

“*Delivery Office*” shall mean the following office of the Trustee:

*For Purposes of Notice and Presentation of Bonds for payment or transfers:*

Amalgamated Bank of Chicago,  
Attn: Pamela Sumerall, Senior Vice President  
Corporate Trust Services  
30 N. LaSalle Street, 38th Floor  
Chicago, IL 60602

“*Deposit Date*” means the Business Day immediately preceding each Interest Payment Date.

“*Designated Corporate Trust Office*” means the corporate trust office of the Trustee located at the address of the Trustee set forth in the definition of “*Delivery Office*” herein, as such address may be changed from time to time by the Trustee.

“*DTC*” means The Depository Trust Company, New York, New York, or its nominee, and its successors and assigns, or any other depository performing similar functions.

“*Federal Obligation*” means any direct obligation of, or any obligation the full and timely payment of principal of and interest on which is guaranteed by, the United States of America.

“*Fitch*” means Fitch Ratings Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and assigns, and, if such corporation shall be dissolved or liquidated, or shall no longer perform the functions of a securities rating agency, “*Fitch*” shall be deemed to refer to any other nationally recognized securities rating agency designated by the City by notice to the Trustee.

“*Indenture*” means this Indenture, as amended and/or supplemented from time to time in accordance with Article IX hereof.

“*Interest Payment Date*” means each January 1 and July 1. The initial Interest Payment Date shall be July 1, 2019.

“*Kroll*” means Kroll Bond Rating Agency, its successors and assigns, and, if Kroll shall be dissolved or liquidated or shall no longer perform the functions of a security rating agency, “*Kroll*” shall be deemed to refer to any other nationally recognized securities rating agency designated by the City by notice to the Trustee.

“*Maturity Date*” means, for the Bonds of each specified maturity, the applicable maturity date set forth in Section 2.02.

“*Municipal Code*” means the Municipal Code of Chicago, as from time to time amended.

“*Ongoing Financing Services*” means any periodic fees and expenses payable to parties involved in the provision of ongoing services relating to the Bonds, such as rating agencies and entities providing financial market information to be used in connection with the structuring and sale of the Bonds, as defined in Section 7 of the Bond Ordinance.

“*Opinion of Bond Counsel*” means a written opinion of Bond Counsel in form and substance acceptable to the City.

“*Outstanding*.” means, when used with reference to any Bonds, all of such obligations issued under this Indenture that are unpaid, *provided* that such term does not include:

- (a) Bonds canceled at or prior to such date or delivered to or acquired by the Trustee at or prior to such date for cancellation;
- (b) matured or redeemed Bonds which have not been presented for payment in accordance with the provisions of this Indenture and for the payment of which the City has deposited funds with the Trustee;
- (c) Bonds for which the City has provided for payment by depositing in an irrevocable trust or escrow, cash or Defeasance Obligations, in each case, the maturing principal of and interest on which will be sufficient to pay at maturity, or if called for redemption on the applicable redemption date, the principal of, redemption premium, if any, and interest on such Bonds;
- (d) Bonds in lieu of or in exchange or substitution for which other Bonds shall have been authenticated and delivered pursuant to this Indenture; and
- (e) Bonds owned by the City and tendered to the Trustee for cancellation.

“*Participant*,” when used with respect to any Securities Depository, means any participant of such Securities Depository.

“*Paying Agent*” means the Trustee and any Paying Agent designated by the Trustee, and any successor thereto.

*“Permitted Investments”* means any of the following obligations or securities permitted under the laws of the State and the Municipal Code:

- (a) interest-bearing general obligations of the United States of America, the State or the City;
- (b) United States treasury bills and other non-interest bearing general obligations of the United States of America when offered for sale in the open market at a price below the face value of same, so as to afford the City a return on such investment in lieu of interest;
- (c) short-term discount obligations of the United States Government or United States Government agencies;
- (d) certificates of deposit of national banks or banks located within the City which are either (i) fully collateralized at least 110 percent by marketable United States Government securities marked to market at least monthly or (ii) secured by a corporate surety bond issued by an insurance company licensed to do business in the State and having a claims-paying rating in the top rating category as rated by a nationally recognized statistical rating organization and maintaining such rating during the term of such investment;
- (e) banker’s acceptances of banks and commercial paper of banks whose senior obligations are rated in the top two short-term rating categories by at least two national rating agencies and maintaining such rating during the term of such investment;
- (f) tax-exempt securities exempt from federal arbitrage provisions applicable to investments of proceeds of the City’s tax-exempt debt obligations;
- (g) shares of money market mutual funds registered under the Investment Company Act of 1940, which shares are registered under the Securities Act of 1933, including any such fund for which the Trustee or any of its affiliates provides any service including any service for which a fee may be paid; and
- (h) any other suitable investment instrument permitted by State laws and the Municipal Code governing municipal investments generally, subject to the reasonable exercise of prudence in making investments of public funds.

*“Pledged Taxes”* shall have the meaning given to such term in the Bond Ordinance.

*“Principal and Interest Account”* means the Account of that name established within the Bond Fund, as described in Section 4.03 hereof.

*“Principal and Interest Account Requirement”* means an amount, equal to the total principal installment and interest due on such Bonds as of each January 1 and July 1 (including any mandatory redemption of the Bonds as required by Section 3.01(c) hereof), which amount

shall be deposited in the Principal and Interest Account not later than the Deposit Date for such Interest Payment Date.

*“Project”* means the capital projects described in Section 2 of the Bond Ordinance.

*“Project Costs”* means the cost of acquisition, construction and equipping of the Project, including the cost of acquisition of all land, rights of way, property, rights, easements and interests acquired by the City for such construction, the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved, the cost of all machinery and equipment determined to be necessary and desirable by the City, financing charges, consultant fees, interest prior to and during construction and, as permitted under the Code for such period after completion of construction as the City shall determine, the cost of engineering and legal expenses, plans, specifications, estimates of cost and revenues, other expenses necessary or incident to determining the feasibility or practicability of constructing any portion of the Project, administrative expenses and such other costs, expenses and funding as may be necessary or incident to the construction of the Project, financing of such construction and placing the Project in operation.

*“Project Fund”* means the fund of that name established and described in Section 4.04 hereof.

*“Qualified Collateral”* means:

(a) Federal Obligations;

(b) direct and general obligations of any state of the United States of America or any political subdivision of the State which are rated not less than “AA” or “Aa2” or their equivalents by any nationally recognized securities rating agency; and

(c) public housing bonds issued by public housing authorities and fully secured as to the payment of both principal and interest by a pledge of annual contributions under any annual contributions contract or contracts with the United States of America, or project notes issued by public housing authorities, or project notes issued by local public agencies, in each case fully secured as to the payment of both principal and interest by a requisition or payment agreement with the United States of America.

*“Rating Agency”* means any of Fitch, S&P and Kroll, or another rating agency that has a credit rating assigned to the Bonds at the request of the City.

*“Record Date”* means each June 15 and December 15 (whether or not a Business Day).

*“Refunding Purposes”* means the retiring of any lines of credit or general obligation commercial paper notes outstanding from time to time, as defined in the Bond Ordinance.

*“Redemption Price”* means with respect to the Bonds, the principal amount thereof plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bonds.

*“Registered Owner”* or *“Owner”* means the person or persons in whose name or names a Bond shall be registered in the Bond Register.

*“S&P”* means S&P Global Ratings, a division of Standard & Poor’s Financial Services LLC, its successors and assigns, and, if S&P shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, *“S&P”* shall be deemed to refer to any other nationally recognized securities rating agency designated by the City by notice to the Trustee.

*“Securities Depository”* means DTC and any other securities depository registered as a clearing agency with the Securities and Exchange Commission pursuant to Section 17A of the Securities Exchange Act of 1934, as amended, and appointed as the securities depository for the Bonds.

*“State”* means the State of Illinois.

*“Supplemental Indenture”* means any indenture modifying, altering, amending, supplementing or confirming this Indenture duly entered into in accordance with the terms hereof.

*“Tax Certificate”* means the tax certificate of the City dated the Date of Issuance pertaining to the Bonds.

*“Trust Estate”* means the property conveyed to the Trustee pursuant to the Granting Clauses hereof.

*“Trustee”* means Amalgamated Bank of Chicago, Chicago, Illinois, an Illinois banking corporation with trust powers, and its successors and any entity resulting from or surviving any consolidation or merger to which it or its successors may be a party, and any successor trustee at the time serving as successor trustee hereunder.

*Section 1.02. Authority for Indenture.* This Indenture is executed and delivered by the City by virtue of and pursuant to the Bond Ordinance and as an exercise of its home rule powers. The City has ascertained and hereby determines and declares that the execution and delivery of this Indenture is necessary to meet the public purposes and obligations of the City, that each and every act, matter, thing or course of conduct as to which provision is made herein is necessary or convenient in order to carry out and effectuate such purposes of the City and to carry out its powers and is in furtherance of the public benefit, safety and welfare and that each and every covenant or agreement herein contained and made is necessary, useful or convenient in order to better secure the Bonds and are contracts or agreements necessary, useful or convenient to carry out and effectuate the corporate purposes of the City.

*Section 1.03. Indenture to Constitute Contract.* In consideration of the purchase and acceptance of Bonds by those who shall hold the same from time to time, the provisions of this Indenture and any Supplemental Indenture shall be a part of the contract of the City with the Owners of Bonds and shall be deemed to be and shall constitute a contract between the City, the Trustee, and the Owners from time to time of the Bonds. The City covenants and agrees with the Owners of Bonds and the Trustee that it will faithfully perform all of the covenants and agreements contained in this Indenture, in the Bond Ordinance and in the Bonds.

## ARTICLE II

### THE BONDS

*Section 2.01. Authority for and Issuance of Bonds.* The Bonds are authorized to be issued by virtue of and pursuant to the Bond Ordinance and as an exercise by the City of its home rule powers. No Bonds may be issued under the provisions of this Indenture except in accordance with this Article. Except as provided in Section 2.07 hereof, the total principal amount of Bonds that may be issued hereunder is expressly limited to \$721,980,000.

*Section 2.02. General Terms of Bonds.* (a) The Bonds shall constitute a single series in the aggregate principal amount of \$721,980,000, and be designated "City of Chicago General Obligation Bonds, Series 2019A" and shall be issued as fully registered bonds, without coupons, in Authorized Denominations substantially in the form attached as *Exhibit A* thereto. Unless the City shall otherwise direct, the Bonds shall be lettered and numbered from R-1 and upwards. Each Bond shall be dated the Date of Issuance and shall mature, subject to prior redemption as provided in Article III hereof, on its Maturity Date.

(b) Each Bond shall bear interest from the later of its date or the most recent Interest Payment Date to which interest has been paid or duly provided for, until the principal amount of such Bond is paid, such interest being payable on January 1 and July 1 of each year, commencing on July 1, 2019. Interest on each Bond shall be paid to the person in whose name such Bond is registered at the close of business on the Record Date next preceding the applicable Interest Payment Date, by check or draft of the Trustee, or, at the option of any registered owner of \$1,000,000 or more in aggregate principal amount of Bonds of a series, by wire transfer of immediately available funds to such bank in the continental United States of America as the registered owner of such Bonds shall request in writing to the Trustee.

(c) The principal of the Bonds and any redemption premium shall be payable in lawful money of the United States of America which, at the respective dates of payment thereof, is legal tender for the payment of public and private debts, upon presentation and surrender thereof at the Designated Corporate Trust Office of the Trustee.

(d) The Bonds shall mature on January 1 in each year shown in the following table in the respective principal amount set forth opposite each such year. The Bonds shall bear interest from and including the Date of Issuance as shown in the table below until payment of the principal or Redemption Price thereof shall have been made or provided for in accordance with the provisions hereof, whether at the applicable Maturity Date, upon redemption, or otherwise. Interest accrued on the Bonds shall be paid in arrears on each Interest Payment Date. Interest on

the Bonds shall be computed upon the basis of a 360 day year consisting of twelve 30 day months.

YEAR <u>(JANUARY 1)</u>	PRINCIPAL <u>AMOUNT</u>	INTEREST <u>RATE</u>
2027	\$21,070,000	5.00%
2028	30,090,000	5.00
2029	15,725,000	5.00
2031	11,730,000	5.00
2035	50,500,000	5.50
2039	46,900,000	5.00
2040	59,675,000	5.00
2044	222,235,000	5.00
2049	264,055,000	5.50

*Section 2.03. Execution.* The seal of the City or a facsimile thereof shall be affixed to or printed on each of the Bonds, and the Bonds shall be executed by the manual or facsimile signature of the Mayor and attested by the manual or facsimile signature of the City Clerk, and in case any officer whose signature shall appear on any Bond shall cease to be such officer before the delivery of such Bond, such signature shall nevertheless be valid and sufficient for all proposes, the same as if such officer had remained in office until delivery.

*Section 2.04. Authentication.* All Bonds shall have thereon a certificate of authentication substantially in the form attached hereto as part of *Exhibit A* duly executed by the Trustee as authenticating agent of the City and showing the date of authentication. No Bond shall be valid or obligatory for any purpose or be entitled to any security or benefit under this Indenture unless and until such certificate of authentication shall have been duly executed by the Trustee by manual signature, and such certificate of authentication upon any such Bond shall be conclusive evidence that such Bond has been authenticated and delivered under the Bond Ordinance and this Indenture. The certificate of authentication on any Bond shall be deemed to have been executed by the Trustee if signed by an authorized officer of such Trustee, but it shall not be necessary that the same officer sign the certificate of authentication on all of the Bonds issued hereunder.

*Section 2.05. Form of Bonds; Temporary Bonds.* The Bonds issued under this Indenture shall be substantially in the form attached hereto as *Exhibit A*, with such appropriate variations, omissions and insertions as are permitted or required by the Bond Ordinance and this Indenture.

Pending preparation of definitive Bonds, or by agreement with the purchasers of the Bonds, the City may issue and, upon its request, the Trustee shall authenticate, in lieu of definitive Bonds, one or more temporary printed or typewritten Bonds in Authorized Denominations of substantially the tenor recited above. Upon request of the City, the Trustee shall authenticate definitive Bonds in exchange for and upon surrender of an equal principal

amount of temporary Bonds. Until so exchanged, temporary Bonds shall have the same rights, remedies and security hereunder as definitive Bonds.

*Section 2.06. Delivery of Bonds.* Upon the execution and delivery of this Indenture, the City shall execute and deliver to the Trustee, and the Trustee shall authenticate, the Bonds and deliver them to the purchasers as may be directed by the City as hereinafter in this Section provided.

Prior to the delivery by the Trustee of any of the Bonds there shall be filed with the Trustee:

- (1) copies, duly certified by the City Clerk of the City, of the Bond Ordinance;
- (2) original executed counterparts of this Indenture;
- (3) an Opinion of Bond Counsel to the effect that this Indenture (i) has been duly and lawfully authorized by the City Council of the City and executed by the City in accordance with the provisions of the Bond Ordinance and (ii) will, when executed and delivered by the Trustee, be valid and binding upon the City and enforceable in accordance with its terms; and
- (4) a Certificate executed by the Chief Financial Officer stating that all conditions precedent with respect to the execution of all documents by the City relating to the Bonds have been satisfied.

*Section 2.07. Mutilated, Lost, Stolen or Destroyed Bonds.* If any Bond, whether in temporary or definitive form, is lost (whether by reason of theft or otherwise), destroyed (whether by mutilation, damage, in whole or in part, or otherwise) or improperly cancelled, the Trustee may authenticate a new Bond of like date, maturity date, interest rate, denomination and principal amount and bearing a number not contemporaneously outstanding; *provided* that (i) in the case of any mutilated Bond, such mutilated Bond shall first be surrendered to the Trustee, and (ii) in the case of any lost Bond or Bond destroyed in whole, there shall be first furnished to the Trustee evidence of such loss, theft, or destruction satisfactory to the City and the Trustee, together with indemnification of the City and the Trustee, satisfactory to the Trustee. If any lost, destroyed or improperly cancelled Bond shall have matured or is about to mature, or has been called for redemption, instead of issuing a duplicate Bond, the Trustee shall pay the same without surrender thereof if there shall be first furnished to the Trustee evidence of such loss, destruction or cancellation, together with indemnity, satisfactory to it. Upon the issuance of any substitute Bond, the Trustee may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto.

All Bonds shall be owned upon the express condition that the foregoing provisions, to the extent permitted by law, are exclusive with respect to the replacement or payment of mutilated, destroyed, lost, stolen or purchased Bonds, and shall preclude any and all other rights or remedies.

*Section 2.08. Transfer and Exchange of Bonds; Persons Treated as Owners.*

(a) Subject to the limitations contained in subsection (c) of this Section, upon surrender for registration of transfer of any Bond at the Designated Corporate Trust Office of the Trustee, duly endorsed by, or accompanied by a written instrument or instruments of transfer in form satisfactory to the Trustee and duly executed by the Bondholder or such Bondholder's attorney duly authorized in writing in such form and with guarantee of signature as shall be satisfactory to the Trustee, the City shall execute, and the Trustee shall authenticate and deliver, in the name of the transferee or transferees, one or more fully registered Bonds of the same interest rate and Maturity Date of Authorized Denominations, for a like principal amount bearing numbers not contemporaneously outstanding. Subject to the limitations contained in subsection (c) of this Section, Bonds may be exchanged at the Designated Corporate Trust Office of the Trustee for a like aggregate principal amount of Bonds of the same interest rate and Maturity Date of other Authorized Denominations bearing numbers not contemporaneously outstanding.

(b) No service charge shall be made for any transfer or exchange of Bonds, but the City or the Trustee may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any transfer or exchange of Bonds, except that no such payment may be required in the case of the issuance of a Bond or Bonds for the unredeemed portion of a Bond surrendered for redemption.

(c) The Trustee shall not be required to transfer or exchange any Bond during the period commencing on the Record Date next preceding any Interest Payment Date of such Bond and ending on such Interest Payment Date, or to transfer or exchange such Bond after the mailing of notice calling such Bond for redemption has been made as herein provided or during the period of 15 days next preceding the giving of notice of redemption of Bonds of the same Maturity Date and interest rate.

(d) Bonds delivered upon any registration of transfer or exchange as provided herein or as provided in Section 2.07 hereof shall be valid general obligations of the City, evidencing the same debt as the Bonds surrendered, shall be secured by this Indenture and shall be entitled to all of the security and benefits hereof and of the Bond Ordinance to the same extent as the Bond surrendered. The City and the Trustee may treat the Registered Owner of any Bond as the absolute owner thereof for all purposes, whether or not such Bond shall be overdue, and shall not be bound by any notice to the contrary. All payments of or on account of the principal of, premium, if any, and interest on any such Bond as herein provided shall be made only to or upon the written order of the Registered Owner thereof or such Registered Owner's legal representative, but such registration may be changed as herein provided. All such payments shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid.

*Section 2.09. Required Information in Bond Form.* On each date on which the Trustee authenticates and delivers a Bond, it shall complete the information required to be inserted by the Bond form and shall keep a record of such information.

*Section 2.10. Cancellation.* Any Bond surrendered for the purpose of payment or retirement, or for exchange, transfer or replacement, shall be canceled upon surrender thereof to

the Trustee. If the City shall acquire any of the Bonds, the City shall deliver such Bonds to the Trustee for cancellation and the Trustee shall cancel the same. Certification of Bonds canceled by the Trustee shall be made to the City. Canceled Bonds may be destroyed by the Trustee unless instructions to the contrary are received from the City.

*Section 2.11. Book Entry Provisions.* The provisions of this Section shall apply as long as the Bonds are maintained in book entry form with DTC or another Securities Depository, any provisions of this Indenture to the contrary notwithstanding. Notwithstanding anything else to the contrary herein, so long as DTC is the Securities Depository, the Bonds shall be subject to the operational arrangements of DTC in effect from time to time.

(a) The Bonds shall be payable to the Securities Depository, or its nominee, as the Registered Owner of the Bonds, in same day funds on each date on which the principal of, premium, if any, and interest on the Bonds is due as set forth in this Indenture and the Bonds. Such payments shall be made to the offices of the Securities Depository specified by the Securities Depository to the City and the Trustee in writing. Without notice to or the consent of the Beneficial Owners of the Bonds, the City and the Securities Depository may agree in writing to make payments of principal and interest in a manner different from that set forth herein. If such different manner of payment is agreed upon, the City shall give the Trustee notice thereof, and the Trustee shall make payments with respect to the Bonds in the manner specified in such notice. Neither the City nor the Trustee shall have any obligation with respect to the transfer or crediting of the principal of, premium, if any, and interest on the Bonds to Participants or the Beneficial Owners of the Bonds or their nominees.

(b) If (i) the City determines, or (ii) the City receives notice that the Securities Depository has received notice from its Participants having interests in at least 50 percent in principal amount of the Bonds, that the Securities Depository or its successor is incapable of discharging its responsibilities as a securities depository, or that it is in the best interests of the Beneficial Owners that they obtain certificated Bonds, the City may (or, in the case of clause (ii) above, the City shall) cause the Trustee to authenticate and deliver Bond certificates. The City shall have no obligation to make any investigation to determine the occurrence of any events that would permit the City to make any determination described in this paragraph.

(c) If, following a determination or event specified in paragraph (b) above, the City discontinues the maintenance of the Bonds in book entry form with the then current Securities Depository, the City will issue replacement Bonds to the replacement Securities Depository, if any, or, if no replacement Securities Depository is selected for the Bonds, directly to the Participants as shown on the records of the former Securities Depository or, to the extent requested by any Participant, to the Beneficial Owners of the Bonds shown on the records of such Participant. Any such Bonds so issued in replacement shall be in fully registered form and in Authorized Denominations, be payable as to interest on the Interest Payment Dates of the Bonds by check mailed to each Registered Owner at the address of such Registered Owner as it appears on the Bond Register or, at the option of any Registered Owner of not less than \$1,000,000 principal

amount of Bonds, by wire transfer to any address in the United States of America on such Interest Payment Date to such Registered Owner as of such Record Date, if such Registered Owner provides the Trustee with written notice of such wire transfer address not later than the Record Date (which notice may provide that it will remain in effect with respect to subsequent Interest Payment Dates unless and until changed or revoked by subsequent notice). Principal and premium, if any, on the replacement Bonds are payable only upon presentation and surrender of such replacement Bond or Bonds at the Designated Corporate Trust Office of the Trustee.

(d) The Securities Depository and its Participants, and the Beneficial Owners of the Bonds, by their acceptance of the Bonds, agree that the City and the Trustee shall not have liability for the failure of such Securities Depository to perform its obligations to the Participants and the Beneficial Owners of the Bonds, nor shall the City or the Trustee be liable for the failure of any Participant or other nominee of the Beneficial Owners to perform any obligation of the Participant to a Beneficial Owner of the Bonds.

(e) As long as Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the Registered Owner of the Bonds, as nominee of DTC, references herein to the Registered Owners of the Bonds shall mean Cede & Co. and shall not mean the Beneficial Owners of the Bonds.

(f) As long as Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the Registered Owner of the Bonds:

(i) selection of Bonds to be redeemed upon partial redemption or presentation of Bonds to the Trustee upon partial redemption, shall be deemed made when the right to exercise ownership rights in such Bonds through DTC or DTC's Participants is transferred by DTC on its books;

(ii) any notices of the interest rate on the Bonds to be provided by the Trustee shall be provided to anyone identifying itself to the Trustee as a person entitled to exercise ownership rights with respect to such Bonds through DTC or its Participants; and

(iii) DTC may present notices, approvals, waivers or other communications required or permitted to be made by Registered Owners under this Indenture on a fractionalized basis on behalf of some or all of those persons entitled to exercise ownership rights in the Bonds through DTC or its Participants.

## **ARTICLE III**

### **REDEMPTION OF BONDS**

*Section 3.01. Redemption Terms, Dates and Prices.* The Bonds shall be subject to redemption prior to their Maturity Date in the amounts, at the times and in the manner provided in this Section.

(a) *Optional Redemption.* The Bonds maturing on or after January 1, 2031 are subject to redemption at the option of the City, on any date occurring on or after January 1, 2029, in such principal amounts and from such maturities and interest rates as the City shall determine and by lot within a single maturity and interest rate, at a Redemption Price of 100% of the principal amount thereof being redeemed plus accrued interest, if any, to the date of redemption.

The City is authorized to sell or waive any right the City may have to call any of the Bonds for optional redemption, in whole or in part; *provided*, that such sale or waiver will not adversely affect the excludability of interest on the Bonds from gross income for federal income tax purposes.

(b) *General Provisions Regarding Redemptions.*

(i) No redemption of less than all of the Bonds Outstanding shall be made pursuant to Section 3.01(a) hereof unless the aggregate principal amount of Bonds to be redeemed is equal to \$5,000 multiples. Any redemption of less than all of the Bonds Outstanding shall be made in such a manner that all Bonds Outstanding after such redemption are in Authorized Denominations. If fewer than all Bonds Outstanding are to be optionally redeemed, the Bonds to be called shall be called from such maturities and interest rates as may be determined by an Authorized Officer.

(ii) Bonds may be called for redemption by the Trustee pursuant to Sections 3.01(a) and 3.01(c) hereof upon receipt by the Trustee at least 45 days prior to the redemption date (unless a shorter time period shall be satisfactory to the Trustee) of, in the case of a redemption pursuant to Section 3.01(a) of a written request of the City requesting such redemption, or in the case of a redemption pursuant to Section 3.01(c) in accordance with the mandatory schedule provided herein.

(iii) In lieu of redeeming Bonds pursuant to Section 3.01(a) hereof, the Trustee may, at the request of the City, use such funds available hereunder for redemption of Bonds to purchase Bonds in the open market at a price not exceeding the Redemption Price then applicable hereunder. Any Bond so purchased in lieu of redemption shall be delivered to the Trustee for cancellation and shall be canceled, all as provided in Section 2.10 hereof.

(c) *Mandatory Redemption of Bonds.*

The Bonds maturing on January 1, 2044 are subject to mandatory redemption prior to maturity on January 1 of the years and in the amounts set forth below, at a Redemption Price of 100 percent of the principal amount thereof plus accrued interest to the date fixed for redemption:

<u>YEAR</u>	<u>PRINCIPAL AMOUNT</u>
2041	\$35,385,000
2042	37,210,000
2043	72,995,000
2044*	76,645,000

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\*Final Maturity

The Bonds maturing on January 1, 2049 are subject to mandatory redemption prior to maturity at a Redemption Price on January 1 of the years and in the amounts set forth below, at a Redemption Price equal to 100 percent of the principal amount thereof plus accrued interest to the date fixed for redemption:

<u>YEAR</u>	<u>PRINCIPAL AMOUNT</u>
2045	\$47,310,000
2046	49,915,000
2047	52,660,000
2048	55,555,000
2049*	58,615,000

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\*Final Maturity

The principal amount of the Bonds to be mandatorily redeemed in each year may be reduced through the earlier optional redemption thereof, with any partial optional redemption of such Bonds credited against future mandatory redemption requirements in such order of the mandatory redemption dates as the City may determine. In addition, on or prior to the sixtieth (60th) day preceding any mandatory redemption date, the Trustee may, and if directed by the City shall, purchase Bonds required to be retired on such mandatory redemption date at such prices as the City shall determine. Any such Bond so purchased shall be canceled and the principal amount thereof shall be credited against the payment required on such next mandatory redemption date.

*Section 3.02. Notice of Redemption.* (a) Unless waived by any owner of Bonds to be redeemed, notice of the call for any such redemption shall be given by the Trustee on behalf of the City by mailing the redemption notice by first class mail at least 30 days and not more than 60 days prior to the date fixed for redemption to the Registered Owner of the Bond or Bonds to be redeemed at the address shown on the Bond Register or at such other address as is furnished in writing by such Registered Owner to the Trustee, but the failure to mail any such notice or any defect therein as to any Bond shall not affect the validity of the proceedings for the redemption of any other Bond. Any notice of redemption mailed as provided in this Section 3.02 shall be conclusively presumed to have been given whether or not actually received by the addressee.

All notices of redemption shall state:

- (1) the Series designation of the Bonds to be redeemed,
- (2) the redemption date,
- (3) the Redemption Price,
- (4) if less than all outstanding Bonds are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts and interest rates) of the Bonds to be redeemed,
- (5) that on the redemption date the Redemption Price will become due and payable upon each such Bond or portion thereof called for redemption, and that interest thereon shall cease to accrue or compound from and after said date,
- (6) the place where such Bonds are to be surrendered for payment of the Redemption Price, and
- (7) such other information as shall be deemed necessary by the Trustee at the time such notice is given to comply with law, regulation or industry standard.

(b) With respect to an optional redemption of Bonds, such notice may state that said redemption is conditioned upon the receipt by the Trustee on or prior to the date fixed for redemption of moneys sufficient to pay the Redemption Price of the Bonds. If such moneys are not so received, such redemption notice shall be of no force and effect, the City shall not redeem such Bonds and such failure to deposit such funds shall not constitute an Event of Default under this Indenture. The Trustee shall give notice, in the same manner in which the notice of redemption was given, that such moneys were not so received and that such Bonds will not be redeemed. Unless the notice of redemption shall be made conditional as provided above, on or prior to any redemption date for the Bonds, the City shall deposit with the Trustee an amount of money sufficient to pay the Redemption Price of all the Bonds or portions thereof which are to be redeemed on that date.

(c) Notice of redemption having been given as aforesaid, the Bonds, or portions thereof, so to be redeemed shall, on the redemption date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the City defaults in the payment of the Redemption Price or unless, in the event of a conditional notice as described above, the necessary moneys were not deposited) such Bonds, or portions thereof, shall cease to bear interest. Upon surrender of such Bonds for redemption in accordance with said notice, such Bonds shall be paid by the Trustee at the Redemption Price. Installments of interest due on or prior to the redemption date shall be payable as herein provided for payment of interest. Upon surrender for any partial redemption of any Bond, there shall be prepared for the Registered Owner a new Bond or Bonds of the same interest rate and maturity in the amount of the unpaid principal.

(d) If any Bond, or portion thereof, called for redemption shall not be so paid upon surrender thereof for redemption, the principal shall, until paid, bear interest from the redemption date at the rate borne by such Bond, or portion thereof, so called for redemption. All Bonds which have been redeemed shall be cancelled and destroyed by the Trustee and shall not be reissued.

(e) Failure to give notice in the manner prescribed hereunder with respect to any Bond, or any defect in such notice, shall not affect the validity of the proceedings for redemption for any Bond with respect to which notice was properly given. Upon the happening of the above conditions and if sufficient moneys are on deposit with the Trustee on the applicable redemption date to redeem the Bonds to be redeemed and to pay interest due thereon and premium, if any, the Bonds thus called shall not, after the applicable redemption date, bear interest, be protected by this Indenture or the Bond Ordinance or be deemed to be Outstanding under the provisions of this Indenture.

(f) If any Bond is transferred or exchanged on the Bond Register after notice has been given calling such Bond for redemption, the Trustee will attach a copy of such notice to the Bond issued in connection with such transfer or exchange.

(g) If any Bond is not presented for payment when the principal amount thereof becomes due, either at maturity or at a date fixed for redemption thereof or otherwise, and if moneys sufficient to pay such Bond are held by the Trustee for the benefit of the Registered Owner of such Bond, the Trustee shall hold such moneys for the benefit of the Registered Owner of such Bond without liability to the Registered Owner for interest. The Registered Owner of such Bond thereafter shall be restricted exclusively to such funds for satisfaction of any claims relating to such Bond.

*Section 3.03. Selection of Bonds for Redemption.* If less than all the Bonds shall be called for redemption under any provision of this Indenture permitting such partial redemption, (i) such redemption shall be by lot in such manner as the Trustee may determine among such Bonds, and (ii) subject to other applicable provisions of this Indenture, the portion of any Bond to be redeemed shall be in a principal amount equal to an Authorized Denomination. In selecting Bonds for redemption, the Trustee shall assign to each Bond of like Maturity Date and interest rate, a distinctive number for each minimum Authorized Denomination of such Bond and shall select by lot from the numbers so assigned as many numbers as, at such minimum Authorized Denomination for each number, shall equal the principal amount of such Bonds to be redeemed. In such case, the Bonds to be redeemed shall be those to which were assigned numbers so selected; provided that only so much of the principal amount of each Bond shall be redeemed as shall equal such minimum Authorized Denomination for each number assigned to it and so selected. If it is determined that one or more, but not all, of the integral multiples of the Authorized Denomination of principal amount represented by any Bond is to be called for redemption, then, upon notice of intention to redeem such integral multiple of an Authorized Denomination, the Registered Owner of such Bond shall forthwith surrender such Bond to the Trustee for (a) payment to such Registered Owner of the Redemption Price of the integral multiple of the Authorized Denomination of principal amount called for redemption, and (b) delivery to such Registered Owner of a new Bond or Bonds in the aggregate principal amount

of the unredeemed balance of the principal amount of such Bond. New Bonds representing the unredeemed balance of the principal amount of such Bond shall be issued to the Registered Owner thereof without charge therefor.

The Trustee shall promptly notify the City in writing of the Bonds, or portions thereof, selected for redemption and, in the case of any Bond selected for partial redemption, the principal amount thereof, and the interest rate thereof to be redeemed.

*Section 3.04. Deposit of Funds.* For the redemption of any of the Bonds, the City shall cause to be deposited in the Principal and Interest Account moneys sufficient to pay when due the principal of, and premium, if any, and interest on, the Bonds to be redeemed on the redemption date to be applied in accordance with the provisions hereof.

## ARTICLE IV

### APPLICATION OF BOND PROCEEDS; CREATION OF FUNDS AND SECURITY FOR BONDS

*Section 4.01. Source of Payment of Bonds.* Pursuant to the Bond Ordinance, the Bonds constitute direct and general obligations of the City for the punctual payment of which the City pledges its full faith and credit and, pursuant to the Bond Ordinance, the Pledged Taxes. The City covenants that the Pledged Taxes shall be used only for the payment of (i) principal of, interest on and Redemption Price, if any, on the Bonds (or for the purchase by the City of the Bonds which are then cancelled), and (ii) Ongoing Financing Services, each unless and until all of the Bonds are paid in full or are fully defeased pursuant to Article VI herein; provided, however, that the levy of Pledged Taxes is subject to abatement as provided in the Bond Ordinance.

*Section 4.02. Application of Bond Proceeds.* The proceeds of the sale of the Bonds, consisting of the principal amount of the Bonds plus original issue premium of \$55,023,924.10 and less an underwriters' discount of \$4,925,631.15, shall be applied simultaneously with their delivery as follows:

- (i) Deposit to Project Fund: \$592,781,893.00
- (ii) Deposit to Refunding Purposes Account: \$150,230,000.00
- (iii) Deposit to Capitalized Interest Account: \$27,312,036.88
- (iv) Deposit to Costs of Issuance Account: \$1,754,363.07

*Section 4.03. Creation of Accounts in Bond Fund.* (a) There is established with the Trustee a trust fund designated "City of Chicago General Obligation Bonds, Series 2019A Bond Fund."

(i) At each such time as is required under this Indenture, the City shall deposit into the Bond Fund, from funds of the City legally available therefor, an amount sufficient to satisfy the Principal and Interest Account Requirement.

(ii) Money on deposit in the Bond Fund shall be applied by the Trustee to pay the principal of (whether due at maturity or by mandatory redemption) and interest on the Bonds as the same shall become due.

(iii) Pending the use of moneys held in the Bond Fund, the Trustee shall invest such moneys in Permitted Investments upon the direction of the Chief Financial Officer or any person designated by the Chief Financial Officer. Income from such investments shall be credited to the account within the Bond Fund from which the investment was made.

(b) *Creation of Principal and Interest Account.* There is established with the Trustee an account within the Bond Fund, designated as the "Series 2019A Principal and Interest Account" (the "*Principal and Interest Account*"). Amounts on deposit in the Principal and Interest Account shall be used to pay principal and interest on the Bonds as the same shall become due after funds in the Series 2019A Capitalized Interest Account have been depleted.

(c) *Creation of Capitalized Interest Account.* There is established with the Trustee an account within the Bond Fund, designated as the "Series 2019A Capitalized Interest Account" (the "*Series 2019A Capitalized Interest Account*"). Moneys on deposit in the Series 2019A Capitalized Interest Account, and the interest earnings thereon, shall be applied to pay interest due on the Bonds on each of the Interest Payment Dates occurring on and before January 2, 2020. Any amount remaining on deposit in the Series 2019A Capitalized Interest Account on January 2, 2020, shall be used to pay interest on the Bonds, as the City shall direct, before funds from the Principal and Interest Account are used.

*Section 4.04. Project Fund.* (a) There is established with the Trustee a trust fund designated "City of Chicago General Obligation Bonds, Series 2019A Project Fund" to be held and applied in accordance with the terms and provisions of this Indenture. Moneys on deposit in the Project Fund will be paid out from time to time by the Trustee to or upon the order of the City in order to provide for the payment or to reimburse the City for the payment of Project Costs upon receipt by the Trustee of a certificate of an Authorized Officer describing the Project Costs to be paid or reimbursed with such moneys (including the identity of and method of payment for each payee), in the form attached hereto Exhibit B, and stating that:

(i) the costs in an aggregate amount set forth in such certificate are necessary and appropriate Project Costs that (a) have been incurred and paid or (b) are expected to be paid within the next 60 days;

(ii) the amount to be paid or reimbursed to the City as set forth in such certificate is reasonable and represents a part of the amount payable for the Project Costs and that such payment is to be made or, in the case of reimbursement to the City, was made, in

accordance with the terms of any applicable contracts and in accordance with usual and customary practice under existing conditions;

(iii) no part of the Project Costs that are the subject of such certificate was included in any certificate previously filed with the Trustee under the provisions of this Indenture; and

(iv) the use of the money so withdrawn from the Project Fund and the use of the facilities provided with such moneys will not result in a violation of any applicable covenant, term or provision of the Tax Certificate.

(b) In connection with the provision of each certificate provided to the Trustee as described above, the City shall provide the Trustee information which will indicate the allocation of sales proceeds of the Bonds with respect to each purpose for which the Bonds may be issued (which are further described in the Bond Ordinance), to wit:

- (i) 2018 and 2019 aldermanic menu program, design and support;
- (ii) public right-of-way infrastructure improvements in City neighborhoods;
- (iii) infrastructure improvements to enhance the development of economic activity;
- (iv) the acquisition of personal property;
- (v) constructing, equipping, altering and repairing various municipal facilities but excluding those municipal facilities described in items 6-13 below;
- (vi) Public Safety Training Academy to be located at 4301 West Chicago Avenue;
- (vii) financing of costs of the Chicago Smart Lighting Program;
- (viii) financing of costs of interior improvements at the Copernicus Senior Center, located at 3160 North Milwaukee Avenue;
- (ix) financing of costs of renovations to Humboldt Park Library, located at 1605 North Troy Street;
- (x) financing of costs of renovations to West Belmont Library, located at 3104 North Narragansett Avenue;
- (xi) financing of costs of renovations to Legler Library at 115 South Pulaski Road;
- (xii) financing of costs of design and construction of a new Engine Company 115;

- (xiii) financing of costs of renovations to the 3rd District Police Station;
- (xiv) Refunding Purposes; and
- (xv) costs of issuance,

so that there shall be no use, transfer or reallocation of the sales proceeds of the Bonds that deviates from the limitations and allocations of the not to exceed principal amounts pertaining to each purpose for which the Bonds may be issued, all as set forth in Sections 2 and 13(d) of the Bond Ordinance.

In connection with the initial deposit of funds to the Project Fund set forth in Section 4.02(i) above, the Trustee shall create the following subaccounts in the Project Fund and deposit the amounts as indicated for Project purposes as set forth below:

	<u>Subaccount</u>	<u>Deposit Amount</u>
1.	2018-19 Aldermanic Menu	\$107,724,208
2.	Rights of Way Improvements	70,000,000
3.	Economic Development Infrastructure	52,294,806
4.	Personal Property Acquisition	49,409,125
5.	Municipal Facility Improvements	75,000,000
6.	Public Safety Training Academy	65,000,000
7.	Copernicus Senior Center	1,000,000
8.	Humboldt Park Library	1,000,000
9.	West Belmont Library	1,000,000
10.	3 <sup>rd</sup> District Police Station	5,000,000
11.	Smart Lighting Program	130,353,754
12.	Legler Library	5,000,000
13.	Engine Company 115	30,000,000

(c) *Creation of Refunding Purposes Account.* There is established with the Trustee an account within the Project Fund, designated as the “Series 2019A Refunding Purposes Account” (the “*Series 2019A Refunding Purposes Account*”). At the written direction of the City, moneys on deposit in the Series 2019A Refunding Purposes Account shall be withdrawn by the Trustee on the Business Day prior to the redemption or maturity due date of the general obligation commercial paper notes to be retired. Moneys on deposit in the Series 2019A Refunding Purposes Account, including the investment earnings thereon, remaining after the retirement of such general obligation commercial paper notes, shall be deposited by the Trustee to the Series 2019A Investment Earnings Account.

(d) *Creation of Costs of Issuance Account.* There is established with the Trustee an account within the Project Fund, designated as the “Series 2019A Costs of Issuance Account” (the “*Series 2019A Costs of Issuance Account*”). Moneys on deposit in the Series 2019A Costs of Issuance Account shall be withdrawn by the Trustee and paid to or as directed by the City, upon receipt by the Trustee of a written disbursement request from the City identifying the costs of issuance and the amounts thereof to be paid pursuant to such request. Moneys on deposit in

the Series 2019A Costs of Issuance Account, including the investment earnings thereon, remaining after all disbursements for payment of the costs of issuance have been made shall be deposited by the Trustee to the Series 2019A Investment Earnings Account.

(e) *Creation of Investment Earnings Account.* There is established with the Trustee an account within the Project Fund, designated as the “Series 2019A Investment Earnings Account” (the “*Series 2019A Investment Earnings Account*”). Moneys on deposit in the Series 2019A Investment Earnings Account, including the investment earnings thereon, shall be retained therein and deposited to the 2018-19 Aldermanic Menu Subaccount, the Economic Development Infrastructure Subaccount, the Personal Property Acquisition Subaccount, or the Smart Lighting Program Subaccount, as the City shall direct.

(f) Moneys in the Project Fund shall be invested at the written direction of an Authorized Officer to the fullest extent practicable in Permitted Investments maturing in such amounts and at such times as may be necessary to provide funds when needed to pay, as applicable, Project Costs, Refunding Purposes or costs of issuance of the Bonds or such other costs as may be required to be paid from such moneys. The City may, and to the extent required for payments from the Project Fund shall, direct the Trustee in writing to sell any such Permitted Investments at any time, and the proceeds of such sale, and of all payments at maturity and upon redemption of such investments, shall be held in the Project Fund. Investment earnings received on moneys or securities in the Project Fund shall be deposited to the Series 2019A Investment Earnings Account.

(g) The completion, substantial completion or abandonment of each capital project set forth in Section 4.03(b)(i)-(xiii) and comprising the Project shall be evidenced by a certificate of an Authorized Officer, which shall be filed promptly with the Trustee, stating the date of such completion, anticipated completion or abandonment and the amount, if any, required in the opinion of the signer of such certificate for the payment of any remaining part of the Project Costs. Upon the filing of such certificate, the balance in the Project Fund in excess of the amount, if any, stated in such certificate of the City as necessary to complete the Project shall be deposited into the Principal and Interest Account and applied as directed in such certificate; provided that such direction shall be consistent with Section 4.06 and applicable provisions of the Tax Certificate.

*Section 4.05. Deposits into Bond Fund and Account Therein.* Not later than the Deposit Date, there shall be on deposit in the Bond Fund an amount equal to the Principal and Interest Account Requirement.

In addition to the Principal and Interest Account Requirement, there shall be deposited into the Bond Fund any other moneys received by the Trustee under and pursuant to this Indenture, when accompanied by directions from the person depositing such moneys that such moneys are to be paid into the Bond Fund and to one or more accounts therein.

Upon calculation by the Trustee of each Principal and Interest Account Requirement under this Section, the Trustee shall notify the City of the Principal and Interest Account

Requirement and the Deposit Date to which it relates, and shall provide the City with such supporting documentation and calculations as the City may reasonably request.

*Section 4.06. Tax Covenants.* (a) The City covenants that it will take no action in the investment of the proceeds of the Bonds which would result in making the interest payable on any of such Bonds subject to federal income taxes by reason of such Bonds being classified as "arbitrage bonds" within the meaning of Section 148 of the Code.

(b) The City further covenants that it will act with respect to the proceeds of the Bonds, the earnings on the proceeds of such Bonds and any other moneys on deposit in any fund or account maintained in respect of such Bonds, including, if necessary, a rebate of such earnings to the United States of America, in a manner which would cause the interest on such Bonds to continue to be exempt from federal income taxation under Section 103(a) of the Code.

*Section 4.07. Non-presentment of Bonds.* In the event any Bond shall not be presented for payment when the principal thereof becomes due, whether at maturity, at the date fixed for redemption or otherwise, if moneys sufficient to pay such Bond shall have been made available to the Trustee for the benefit of the Registered Owner thereof, subject to the provisions of the immediately following paragraph, all liability of the City to the Registered Owner thereof for the payment of such Bond shall forthwith cease, determine and be completely discharged, and thereupon it shall be the duty of the Trustee to hold such moneys, without liability for interest thereon, for the benefit of the Registered Owner of such Bond who shall thereafter be restricted exclusively to such moneys, for any claim of whatever nature on his or her part under this Indenture or on, or with respect to, such Bond.

Any moneys so deposited with and held by the Trustee not so applied to the payment of Bonds within two years after the date on which the same shall have become due shall be repaid by the Trustee to the City, and thereafter the Registered Owners of such Bonds shall be entitled to look only to the City for payment, and then only to the extent of the amount so repaid, and all liability of the Trustee with respect to such moneys shall thereupon cease, and the City shall not be liable for any interest thereon and shall not be regarded as a trustee of such moneys. The obligation of the Trustee under this Section to pay any such funds to the City shall be subject, however, to any provisions of law applicable to the Trustee or to such funds providing other requirements for disposition of unclaimed property.

*Section 4.08. Moneys Held in Trust.* All moneys required to be deposited with or paid to the Trustee for the account of any fund or account referred to in any provision of this Indenture shall be held by the Trustee in trust as provided in Section 8.07 of this Indenture, and shall, while held by the Trustee, constitute part of the Trust Estate and be subject to the lien or security interest created hereby.

## ARTICLE V

### INVESTMENT OF MONEYS

*Section 5.01. Investment of Moneys.* Moneys held in the funds, accounts and subaccounts established hereunder shall be invested and reinvested in accordance with the

provisions governing investments contained in this Indenture. All such investments shall be held by or under the control of the Trustee and shall be deemed at all times a part of the fund, account or subaccount for which they were made.

*Section 5.02. Investment Income.* The interest earned on any investment of moneys held hereunder, any profit realized from such investment and any loss resulting from such investment shall be credited or charged to the fund, account or subaccount for which such investment was made.

## ARTICLE VI

### DISCHARGE OF LIEN

*Section 6.01. Defeasance.* (a) If the City shall pay to the Registered Owners of the Bonds, or provide for the payment of, the principal, premium, if any, and interest to become due on the Bonds, then this Indenture and the Bond Ordinance shall be fully discharged and satisfied with respect to the Bonds. Upon the satisfaction and discharge of this Indenture, the Trustee shall, upon the request of the City, execute and deliver to the City all such instruments as may be desirable to evidence such discharge and satisfaction, and all fiduciaries shall pay over or deliver to the City all funds, accounts and other moneys or securities held by them pursuant to this Indenture which are not required for the payment or redemption of the Bonds. If payment or provision for payment is made to or for the Registered Owners of all or a portion of the Bonds, of the principal of and interest due and to become due on any Bond at the times and in the manner stipulated therein, and there is paid or caused to be paid to the Trustee all sums of money due and to become due according to the provisions of this Indenture, then these presents and the estate and rights hereby and by the Bond Ordinance granted shall cease, terminate and be void as to those Bonds or portions thereof except for purposes of registration, transfer and exchange of Bonds and any such payment from such moneys or obligations. Any Bond shall be deemed to be paid within the meaning of this Section when payment of the principal of any such Bond, plus interest thereon to the due date thereof (whether such due date be by reason of maturity or upon redemption as provided in this Indenture or otherwise), either (a) shall have been made or caused to have been made in accordance with the terms thereof, or (b) shall have been provided for by irrevocably depositing with the Trustee, in trust and exclusively for such payment, (1) moneys sufficient to make such payment or (2) Defeasance Obligations, or (3) a combination of the investments described in clauses (1) and (2) above, such amounts so deposited being available or maturing as to principal and interest in such amounts and at such times, without consideration of any reinvestment thereof, as will insure the availability of sufficient moneys to make such payment (all as confirmed by a nationally recognized firm of independent public accountants). If the City shall pay and discharge a portion of the Bonds as aforesaid, such portion shall cease to be entitled to any lien, benefit or security under this Indenture and the Bond Ordinance. The liability of the City with respect to such Bonds shall continue, but the Registered Owners thereof shall thereafter be entitled to payment (to the exclusion of all other Bondholders) only out of the Defeasance Obligations deposited with the Trustee under Article VIII of this Indenture.

(b) No such deposit under this Section shall be made or accepted hereunder and no use made of any such deposit unless the Trustee shall have received an opinion of nationally recognized municipal bond counsel to the effect that such deposit and use would not cause any of

such Bonds to be treated as “arbitrage bonds” within the meaning of Section 148 of the Code or any successor provision thereto.

(c) Nothing in this Indenture shall prohibit a defeasance deposit of escrow securities as provided in this Section from being subject to a subsequent sale of such escrow securities and reinvestment of all or a portion of the proceeds of that sale in escrow securities which, together with money to remain so held in trust, shall be sufficient to provide for payment of principal, redemption premium, if any, and interest on any of the defeased Bonds (all as confirmed by a nationally recognized firm of independent public accountants). Amounts held by the Trustee in excess of the amounts needed so to provide for payment of the defeased Bonds may be subject to withdrawal by the City. No such sale and reinvestment as provided in this paragraph shall be made or accepted hereunder unless the Trustee shall have received an opinion of nationally recognized municipal bond counsel to the effect that such sale and reinvestment would not cause any of the defeased Bonds to be treated as “arbitrage bonds” within the meaning of Section 148 of the Code or any successor provision thereto.

## ARTICLE VII

### DEFAULT PROVISIONS; REMEDIES

*Section 7.01. Defaults.* Each of the following events is hereby declared to be an “Event of Default:”

(a) payment of the principal or Redemption Price, if any, of any Bonds shall not be made when and as the same shall become due, whether at maturity or upon call for redemption or otherwise;

(b) payment of any installment of interest on any Bonds shall not be made when and as the same shall become due; or

(c) the City shall fail or refuse to comply with the provisions of this Indenture, or shall default in the performance or observance of any of the covenants, agreements or conditions on its part contained herein or in the Bonds, which materially affects the rights of the Owners of the Bonds and such failure, refusal or default shall continue for a period of 45 days after written notice thereof by the Trustee or the Owners of not less than 25 percent in aggregate principal amount of the Outstanding Bonds; *provided, however,* that in the case of any such default which can be cured by due diligence but which cannot be cured within the 45-day period, the time to cure shall be extended for such period as may be necessary to remedy the default with all diligence.

*Section 7.02. Remedies.* (a) Upon the happening and continuance of any Event of Default specified in paragraph (a) or (b) of Section 7.01 hereof, the Trustee shall proceed, or upon the happening and continuance of any Event of Default (beyond the time periods specified therein) specified in paragraph (c) of Section 7.01 hereof, the Trustee may proceed, and upon the written request of the Owners of not less than 25 percent in aggregate principal amount of the Outstanding Bonds, shall proceed, in its own name, subject to the provisions of this Section, to

protect and enforce its rights and the rights of the Owners of the Bonds by such of the following remedies as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights:

- (i) by mandamus or other suit, action or proceeding at law or in equity, to enforce all rights of the Owners of the Bonds including the right to require the City to receive and collect taxes adequate to carry out the covenants and agreements as to such taxes and to require the City to carry out any other covenant or agreement with the Owners of the Bonds and to perform its duties under this Indenture;
- (ii) by bringing suit upon the Bonds;
- (iii) by action or suit in equity, require the City to account as if it were the trustee of an express trust for the Owners of the Bonds; and/or
- (iv) by action or suit in equity, enjoin any acts or things which may be unlawful or in violation of the rights of the Owners of the Bonds.

(b) In the enforcement of any rights and remedies under this Indenture, the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts then or during any default becoming, and at any time remaining, due from the City but only out of moneys pledged as security for the Bonds for principal, Redemption Price, interest or otherwise, under any provision of this Indenture or of the Bonds, and unpaid, with interest on overdue payments at the rate or rates of interest specified in such Bonds, together with any and all costs and expenses of collection and of all proceedings hereunder and under such Bonds without prejudice to any other right or remedy of the Trustee or of the Owners of the Bonds, and to recover and enforce a judgment or decree against the City for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect from any moneys available under this Indenture for such purpose, in any manner provided by law, the moneys adjudged or decreed to be payable.

(c) Under no circumstance may the Trustee declare the principal of any Bond to be due and payable prior to its Maturity Date following the occurrence of an Event of Default under this Indenture.

## ARTICLE VIII

### TRUSTEE

*Section 8.01. Acceptance of Trusts.* The Trustee hereby accepts the trusts imposed upon it by this Indenture, and agrees to perform said trusts, but only upon and subject to the express terms and conditions set forth herein. Except as otherwise expressly set forth in this Indenture, the Trustee assumes no duties, responsibilities or liabilities by reason of its execution of this Indenture other than as set forth in this Indenture, and this Indenture is executed and accepted by the Trustee subject to all the terms and conditions of its acceptance of the trust under this Indenture. The Trustee shall make payments to Bondholders and effect optional and

mandatory redemptions when required, whether or not its fees and expenses have been fully paid.

*Section 8.02. Dealing in Bonds.* The Trustee, in its individual capacity, may buy, sell, own, hold and deal in any of the Bonds, and may join in any action which the Registered Owner of any Bond may be entitled to take with like effect as if it did not act in any capacity hereunder. The Trustee, in its individual capacity, either as principal or agent, may also engage in or be interested in any financial or other function with the City, and may act as depositary, trustee or agent for any committee or body of the Registered Owners of Bonds secured hereby or other obligations of the City as freely as if it did not act in any capacity hereunder.

*Section 8.03. Compensation of Trustee.* The City shall pay to the Trustee from time to time reasonable compensation for all services rendered under this Indenture and also all reasonable expenses, charges, counsel fees and other disbursements, including those of their attorneys, agents and employees incurred in and about the performance of their powers and duties under this Indenture and, except as provided in Section 8.01 hereof the Trustee shall have a lien therefor on any and all moneys at any time held by it under this Indenture. The City further agrees to indemnify and save the Trustee harmless against any liabilities which it may incur in the exercise and performance of its powers and duties hereunder, which are not due to its negligence or default.

*Section 8.04. Notice to Rating Agencies.* The Trustee hereby agrees that if at any time (a) the City redeems any portion of the Bonds Outstanding hereunder prior to their Maturity Date, (b) the City provides for the payment of any portion of the Bonds pursuant to Section 6.01, (c) a successor Trustee is appointed, (d) any supplement to this Indenture shall become effective, or any party thereto shall waive any provision of this Indenture, or (e) any other information that a Rating Agency may reasonably request in order to maintain the ratings on the Bonds, then, in each case, the Trustee shall give notice thereof to each Rating Agency then maintaining a rating on the Bonds.

Any notice given to a Rating Agency hereunder shall be mailed by first class mail as follows:

If to Fitch: Fitch Ratings Inc.  
33 Whitehall Street  
New York, NY 10004

If to Kroll: KBRA  
845 Third Avenue  
Fourth Floor  
New York, NY 10022

If to S&P: S&P Global Ratings  
130 East Randolph, 36<sup>th</sup> Floor  
Chicago, IL 60601

*Section 8.05. Qualification of Trustee.* The Trustee hereunder shall be a bank, trust company or national banking association having the powers of a trust company doing business and having a corporate trust office in the City of Chicago, Illinois.

*Section 8.06. Responsibilities of Trustee.* (a) The recitals of fact herein and in the Bonds shall be taken as the statements of the City and the Trustee assumes no responsibility for the correctness of the same. The Trustee makes no representations as to the validity or sufficiency of this Indenture or any Supplemental Indenture or of any Bonds issued hereunder or thereunder or in respect of the security afforded by this Indenture or any Supplemental Indenture and the Trustee shall not incur any responsibility in respect thereof. The Trustee shall, however, be responsible for its representation contained in its certificate of authentication on the Bonds. The Trustee shall not be under any responsibility or duty with respect to the issuance of the Bonds for value or the application of the proceeds thereof except to the extent such proceeds are paid to the Trustee in its capacity as Trustee. The Trustee shall not be under any obligation or duty to perform any act that would involve it in expense or liability or to institute or defend any action or suit in respect hereof, or to advance any of its own moneys, unless properly indemnified. Subject to the provisions of paragraph (b) of this Section, the Trustee shall not be liable in connection with the performance of its duties hereunder except for its own negligence or willful misconduct or that of its agents.

(b) The Trustee, prior to the occurrence of an Event of Default and after the remedy of all Events of Default that may have occurred, undertakes to perform such duties and only such duties as are specifically set forth in this Indenture and each Supplemental Indenture. In case an Event of Default has occurred and has not been remedied, the Trustee shall exercise such of the rights and powers vested in it by law, this Indenture and each Supplemental Indenture and shall use the same degree of care and skill in their exercise as a prudent person would exercise or use under the circumstances in the conduct of his or her own affairs. Any provision of this Indenture and any Supplemental Indenture relating to action taken or so to be taken by the Trustee or to evidence upon which the Trustee may rely shall be subject to the provisions of this Section.

*Section 8.07. Funds Held in Trust and Security Therefor.* Any moneys held by the Trustee, as such, at any time pursuant to the terms of this Indenture or any Supplemental Indenture shall be and hereby are assigned, transferred and set over unto the Trustee in trust for the purposes and upon the terms and conditions of this Indenture or any Supplemental Indenture. Subject to the terms of this Indenture concerning Permitted Investments, all moneys (not including securities) held by the Trustee, as such, may be deposited by the Trustee in its banking department, or with such other banks, trust companies, or national banking associations, each having a place of business in the City of Chicago, Illinois, as may be designated by the City and approved by the Trustee. No such funds shall be deposited with any bank, trust company or national banking association, other than the Trustee, in an amount exceeding 25 percent of the amount which an officer of such bank, trust company or national banking association shall certify to the Trustee and the City as the combined capital, surplus and undivided profits of such bank, trust company or national banking association. No such funds shall be deposited or remain on deposit with any bank, trust company or national banking association in excess of the amount insured by the Federal Deposit Insurance Corporation, unless (a) such bank, trust company or national banking association shall have deposited in trust with the trust department of the Trustee

or with a Federal Reserve Bank or branch or, with the written approval of the Trustee and the City, pledged to some other bank, trust company or national banking association, for the benefit of the City and the appropriate fund, account, subfund or subaccount, as collateral security for the moneys deposited, Qualified Collateral having a current market value (exclusive of accrued interest) at least equal to 110 percent of the amount of such moneys, or (b) in lieu of such collateral security as to all or any part of such moneys, there shall have been deposited in trust with the trust department of the Trustee, for the benefit of the City and the appropriate fund, account, subfund or subaccount, and remain in full force and effect as security for such moneys or part thereof, the indemnifying bond or bonds of a surety company or companies qualified as surety for deposits of funds of the United States of America and qualified to transact business in the State in a sum at least equal to the amount of such moneys or part thereof. The Trustee shall allow and credit interest on any such moneys held by it at such rate as it customarily allows upon similar moneys of similar size and under similar conditions or as required by law. Interest in respect of moneys or on securities in any fund, account, subfund or subaccount shall be credited in each case to the fund, account, subfund or subaccount in which such moneys or securities are held.

*Section 8.08. Evidence on which Trustee May Act.* The Trustee shall be protected in acting upon any notice, resolution, request, consent, order, certificate, report, opinion, bond or other paper or document believed by it to be genuine, and to have been signed or presented by the proper party or parties. The Trustee may consult with counsel, who may or may not be counsel to the City, and the opinion of such counsel shall be full and complete authorization and protection in respect of any action taken or suffered by it hereunder in good faith and in accordance therewith. Whenever the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering any action hereunder, including payment of moneys out of any fund or account, such matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a Certificate, and such Certificate shall be full warrant for any action taken or suffered in good faith under the provisions of this Indenture upon the faith thereof, but in its discretion the Trustee may in lieu thereof accept other evidence of such fact or matter or may require such further or additional evidence as to it may seem reasonable. Except as otherwise expressly provided herein or therein, any request, order, notice or other direction required or permitted to be furnished pursuant to any provision hereof or thereof by the City to the Trustee shall be sufficiently executed if executed in the name of the City by an Authorized Officer.

*Section 8.09. Permitted Acts and Functions.* The Trustee may become the Owner of any Bonds, with the same rights it would have if it were not the Trustee. To the extent permitted by law, the Trustee may act as depositary for, and permit any of its officers or directors to act as a member of, or in any other capacity with respect to, any committee formed to protect the rights of the Owners of Bonds or to effect or aid in any reorganization growing out of the enforcement of the Bonds or this Indenture, whether or not any such committee shall represent the Owners of a majority in aggregate principal amount of the Bonds then Outstanding.

*Section 8.10. Resignation.* The Trustee may at any time resign and be discharged of its duties and obligations created by this Indenture by giving not fewer than 60 days' written notice to the City and mailing notice thereof, to the Owners of Bonds at their addresses shown on

the registration books kept by the Trustee within 20 days after the giving of such written notice. Such resignation shall take effect upon the appointment and acceptance of appointment of a successor by the City or the Owners of Bonds as herein provided.

*Section 8.11. Removal.* The Trustee may be removed at any time by the Owners of a majority in aggregate principal amount of the Bonds then Outstanding, excluding any Bonds held by or for the account of the City, by an instrument or concurrent instruments in writing signed and duly acknowledged by such Owners of Bonds or by their attorneys duly authorized in writing and delivered to the City. Copies of each such instrument shall be delivered by the City to the Trustee and any successor. The City may remove the Trustee at any time, except during the existence of an Event of Default, for such cause (or upon 30 days' notice for any reason) as shall be determined in the sole discretion of the City by filing with the Trustee an instrument signed by an Authorized Officer and by mailing notice thereof to the Bank and to the Owners of Bonds at their addresses shown on the registration books kept by the Trustee. Any removal of the Trustee shall take effect upon the appointment and acceptance of appointment of a successor Trustee.

*Section 8.12. Appointment of Successor.* In case at any time the Trustee shall resign or shall be removed or shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or if a receiver, liquidator or conservator of the Trustee or of its property shall be appointed, or if any public officer shall take charge or control of the Trustee or of its property or affairs, a successor may be appointed by the Owners of a majority in aggregate principal amount of the Bonds then Outstanding, excluding any Bonds held by or for the account of the City, by an instrument or concurrent instruments in writing signed by such Owners or their attorneys duly authorized in writing and delivered to such successor Trustee, notification thereof being given to the City and the predecessor Trustee. Pending such appointment, the City shall forthwith appoint a Trustee to fill such vacancy until a successor Trustee (if any) shall be appointed by the Owners of Bonds as herein authorized. The City shall mail notice to Owners of Bonds of any such appointment within 20 days after such appointment. Any successor Trustee appointed by the City shall, immediately and without further act, be superseded by a Trustee appointed by the Owners of Bonds. If in a proper case no appointment of a successor Trustee shall be made pursuant to the foregoing provisions of this Section within 45 days after the Trustee shall have given to the City written notice of resignation as provided in Section 8.10 hereof or after the occurrence of any other event requiring or authorizing such appointment, the Trustee, or any Owner of Bonds may apply to any court of competent jurisdiction to appoint a successor. Said court may thereupon, after such notice, if any, as said court may deem proper and prescribe, appoint such successor Trustee. Any Trustee appointed under the provisions of this Section shall be a bank, trust company or national banking association, in any such case having corporate trust powers, doing business and having a corporate trust office in the City.

*Section 8.13. Transfer of Rights and Property to Successor.* Any successor Trustee appointed under this Indenture shall execute, acknowledge and deliver to its predecessor Trustee, and also to the City, a written instrument of acceptance respecting such appointment, and thereupon such successor Trustee, without any further act, deed or conveyance, shall become fully vested with all moneys, estates, properties, rights, powers, duties and obligations of such predecessor Trustee, with like effect as if originally named as Trustee; but the Trustee ceasing to

act shall nevertheless, on the request of the City, or of the successor Trustee, execute, acknowledge and deliver such instruments of conveyance and further assurance and do such other things as may reasonably be required for more fully and certainly vesting and confirming in such successor Trustee all the right, title and interest of the predecessor Trustee in and to any property held by it under this Indenture, and shall pay over, assign and deliver to the successor Trustee any money or other property subject to the trusts and conditions herein set forth. Should any deed, conveyance or instrument in writing from the City be required by such successor Trustee for more fully and certainly vesting in and confirming to such successor Trustee any such estates, rights, powers and duties, any and all such deeds, conveyances and instruments in writing shall, on request, and so far as may be authorized by law, be executed, acknowledged and delivered by the City.

*Section 8.14. Merger or Consolidation.* Any company into which the Trustee may be merged or converted or with which it may be consolidated or any company resulting from any merger, conversion or consolidation to which it shall be a party or any company to which the Trustee may sell or transfer all or substantially all of its corporate trust business, provided such company shall be a bank, trust company or national banking association which is qualified to be a successor to the Trustee under Section 8.12 hereof and shall be authorized by law to perform all the duties imposed upon it by this Indenture, shall be the successor to the Trustee without the execution or filing of any paper or the performance of any further act.

*Section 8.15. Adoption of Authentication.* In case any of the Bonds contemplated to be issued under this Indenture shall have been authenticated but not delivered, any successor Trustee may adopt the certificate of authentication of any predecessor Trustee so authenticating such Bonds and deliver such Bonds so authenticated, and in case any of the said Bonds shall not have been authenticated, any successor Trustee may authenticate such Bonds in the name of the predecessor Trustee, or in its own name.

*Section 8.16. Evidence of Signatures of Owners and Ownership of Bonds.* (a) Any request, consent or other instrument which this Indenture may require or permit to be signed and executed by the Owners of Bonds may be in one or more instruments of similar tenor, and shall be signed or executed by such Owners in person or by their attorneys appointed in writing. Proof of (i) the execution of any such instrument, or of an instrument appointing any such attorney, or (ii) the ownership by any person of the Bonds, shall be sufficient for any purpose of this Indenture (except as otherwise herein expressly provided) if made in the following manner, but the Trustee may nevertheless in its discretion require further or other proof in cases where it deems the same desirable:

(1) The fact and date of the execution by any Owner or his attorney of such instrument may be proved by the certificate, which need not be acknowledged or verified, of an officer of a bank or trust company satisfactory to the Trustee or of any notary public or other officer authorized to take acknowledgments of deeds to be recorded in the jurisdiction in which he purports to act, that the person signing such request or other instrument acknowledged to him the execution thereof, or by an affidavit of a witness of such execution, duly sworn to before such notary public or other officer.

(2) The authority of the person or persons executing any such instrument on behalf of a corporate Owner of Bonds may be established without further proof if such instrument is signed by a person purporting to be the president or vice president of such corporation with a corporate seal affixed and attested by a person purporting to be its secretary or an assistant secretary.

(b) The ownership of Bonds and the amount, numbers and other identification, and date of ownership of the same shall be proved by the Bond Register. Any request, consent or vote of the Owner of any Bond shall bind all future Owners of such Bond in respect of anything done or suffered to be done by the City or the Trustee in accordance therewith.

*Section 8.17. Preservation and Inspection of Documents.* All documents received by the Trustee under the provisions of this Indenture shall be retained in its possession and shall be subject at all reasonable times to the inspection of the City and any Owner of Bonds and their agents and their representatives, any of whom may make copies thereof.

## ARTICLE IX

### SUPPLEMENTAL INDENTURE

*Section 9.01. Supplemental Indenture Effective Upon Execution by the Trustee.* For any one or more of the following purposes and the purposes enumerated in Section 9.04 hereof, and at any time or from time to time, a Supplemental Indenture may be authorized by an ordinance adopted by the City Council of the City, which, upon the filing with the Trustee of a copy of such ordinance certified by the City Clerk and the execution and delivery of such Supplemental Indenture by the City and the Trustee, shall be fully effective in accordance with its terms and not subject to consent by the Registered Owners of the Bonds:

(a) to add to the covenants and agreements of the City in this Indenture other covenants and agreements to be observed by the City which are not contrary to or inconsistent with this Indenture as theretofore in effect;

(b) to add to the limitations and restrictions in this Indenture other limitations and restrictions to be observed by the City which are not contrary to or inconsistent with this Indenture as theretofore in effect;

(c) to surrender any right, power or privilege reserved to or conferred upon the City by the terms of this Indenture, but only if the surrender of such right, power or privilege is not contrary to or inconsistent with the covenants and agreements of the City contained in this Indenture;

(d) to confirm, as further assurance, the pledge herein, and the subjection of, additional properties, taxes or other collateral to any lien, claim or pledge created or to be created by, this Indenture;

- (e) to cure any ambiguity, supply any omission, or cure or correct any defect or inconsistent provision in this Indenture;
- (f) to insert such provisions clarifying matters or questions arising under this Indenture as are necessary or desirable and are not contrary to or inconsistent with this Indenture as theretofore in effect; or
- (g) to provide additional duties of the Trustee under this Indenture.

*Section 9.02. Supplemental Indentures Effective With Consent of Owners of Bonds.*

At any time or from time to time, a Supplemental Indenture may be authorized by an ordinance adopted by the City Council of the City, subject to consent by the Owners of Bonds in accordance with and subject to the provisions of this Article, which Supplemental Indenture, upon the filing with the Trustee of a copy of such ordinance certified by the City Clerk, upon compliance with the provisions of this Article, and upon execution and delivery of such Supplemental Indenture by the City and the Trustee, shall become fully effective in accordance with its terms.

*Section 9.03. General Provisions.* (a) This Indenture shall not be modified or amended in any respect except as provided in and in accordance with and subject to the provisions of this Article. Nothing in this Article shall affect or limit the right or obligation of the City to adopt, make, do, execute, acknowledge or deliver any ordinance, resolution, act or other instrument pursuant to the provisions of this Article or the right or obligation of the City to execute and deliver to the Trustee any instrument which elsewhere in this Indenture it is provided shall be delivered to the Trustee.

(b) Any ordinance authorizing a Supplemental Indenture referred to and permitted or authorized by Section 9.01 or 9.04 hereof may be adopted by the City Council of the City without the consent of any of the Owners of Bonds, but such Supplemental Indenture shall be executed and delivered by the City and the Trustee and shall become effective only on the conditions, to the extent and at the time provided in this Article. Every Supplemental Indenture delivered to the Trustee for execution shall be accompanied by an opinion of counsel stating that such Supplemental Indenture has been duly and lawfully authorized by the City Council of the City and executed by the City in accordance with the provisions of this Indenture, is authorized or permitted by this Indenture, and will, when executed and delivered by the Trustee, be valid and binding upon the City and enforceable in accordance with its terms.

(c) The Trustee is hereby authorized to enter into, execute and deliver any Supplemental Indenture referred to and permitted or authorized by this Article and to make all further agreements and stipulations which may be therein contained, and the Trustee, in taking such action, shall be fully protected in relying on an opinion of counsel that such Supplemental Indenture is authorized or permitted by the provisions of this Indenture.

(d) No Supplemental Indenture shall change or modify any of the rights or obligations of the Trustee without its written assent thereto.

(e) No Supplemental Indenture shall take effect unless and until there has been delivered to the Trustee an Opinion of Bond Counsel to the effect that such Supplemental Indenture does not adversely affect the exclusion from gross income for federal income tax purposes to which interest on the Bonds would otherwise be entitled.

*Section 9.04. Additional Matters.* Additionally, this Indenture may, without the consent of, or notice to, any of the Bondholders, be supplemented and amended, in such manner as shall not be inconsistent with the terms and provisions hereof, for any one or more of the following purposes:

(a) to provide for certificated Bonds; and

(b) to secure or maintain ratings from any Rating Agency in the highest long term debt rating category, of such Rating Agency which are available for the Bonds, which changes will not restrict, limit or reduce the obligation of the City to pay the principal of, premium, if any, and interest on the Bonds as provided in this Indenture or otherwise adversely affect the Registered Owners of the Bonds under this Indenture.

*Section 9.05. Mailing of Notice of Amendment.* Any provision in this Article for the mailing of a notice or other paper to owners of Bonds shall be fully complied with if it is mailed postage prepaid only (i) to each Registered Owner of then Outstanding Bonds at his address, if any, appearing upon the registration books maintained by the City at the Designated Corporate Trust Office of the Trustee, and (ii) to the Trustee.

*Section 9.06. Powers of Amendment.* Any modification or amendment of this Indenture or of the rights and obligations of the City and of the Owners of the Bonds, in particular, which requires the consent of the Bondholders, may be made by a Supplemental Indenture, with the written consent given as provided in Section 9.07, (a) of the Owners of a majority in aggregate principal amount of the Bonds Outstanding at the time such consent is given, or (b) in case less than all of the then Outstanding Bonds are affected by the modification or amendment, of the Owners of a majority in aggregate principal amount of the then Outstanding Bonds so affected. No such modification or amendment shall permit a change in the terms of redemption or maturity of the principal of any Outstanding Bonds or of any installment of interest thereon or a reduction in the principal amount or the Redemption Price thereof or in the rate of interest thereon, or in terms of purchase or the purchase price thereof, without the consent of the owner of such Bonds, or shall reduce the percentages or otherwise affect the classes of Bonds the consent of the owners of which is required to effect any such modification or amendment, or shall change or modify any of the rights or obligations of the Trustee without its written assent thereto. For the purposes of this Section, a Bond shall be deemed to be affected by a modification or amendment of this Indenture if the same adversely affects or diminishes the rights of the owners of such Bond.

*Section 9.07. Consent of Owners of Bonds.* (a) The City may at any time authorize a Supplemental Indenture making a modification or amendment permitted by the provisions of Section 9.06, to take effect when and as provided in this Section. A copy of such Supplemental Indenture (or brief summary thereof or reference thereto in form approved by the Trustee),

together with a request to the Owners of the Bonds for their consent thereto in form satisfactory to the Trustee, shall be mailed by the City to the Owners of the Bonds (but failure to mail such copy and request shall not affect the validity of the Supplemental Indenture when consented to as in this Section provided). Such Supplemental Indenture shall not be effective unless and until, and shall take effect in accordance with its terms when, (i) there shall have been filed with the Trustee (1) the written consents of Owners of the percentages of Outstanding Bonds specified in Section 9.06 and (2) an opinion of counsel stating that such Supplemental Indenture has been duly and lawfully executed and delivered by the City and the Trustee in accordance with the provisions of this Indenture, is authorized or permitted hereby and is valid and binding upon the City and enforceable in accordance with its terms upon its becoming effective as in this Section provided, and (ii) a notice shall have been mailed as hereinafter in this Section provided.

(b) The consent of an Owner of Bonds to any modification or amendment shall be effective only if accompanied by proof of the Ownership, at the date of such consent, of the Bonds with respect to which such consent is given, which proof shall be such as is permitted by Section 8.16. A certificate or certificates signed by the Trustee that it has examined such proof and that such proof is sufficient in accordance with Section 8.16 shall be conclusive that the consents have been given by the Owners of the Bonds described in such certificate or certificates. Any such consent shall be binding upon the Owner of the Bonds giving such consent and upon any subsequent Owner of such Bonds and of any Bonds issued in exchange therefor (whether or not such subsequent Owner thereof has notice thereof) unless such consent is revoked in writing by the Owner of such Bonds giving such consent or a subsequent Owner thereof by filing such revocation with the Trustee, prior to the time when the written statement of the Trustee hereinafter provided for in this Section is filed. The fact that a consent has not been revoked may likewise be proved by a certificate of the Trustee to the effect that no revocation thereof is on file with the Trustee.

(c) At any time after the Owners of the required percentages of Bonds shall have filed their consents to the Supplemental Indenture, the Trustee shall make and file with the City a written statement that the Owners of such required percentages of Bonds have filed such consents. Such written statement shall be conclusive that such consents have been so filed. At any time thereafter notice, stating in substance that the Supplemental Indenture (which may be referred to as a Supplemental Indenture entered into by the City and the Trustee as of a stated date, a copy of which is on file with the Trustee) has been consented to by the Owners of the required percentages of Bonds and will be effective as provided in this Section, shall be given to Owners by the Trustee by mailing such notice to the Owners of the Bonds (but failure to mail such notice shall not prevent such Supplemental Indenture from becoming effective and binding as provided in this Section). The Trustee shall file with the City proof of the mailing of such notice. A record, consisting of the papers required or permitted by this Section to be filed with the Trustee, shall be proof of the matters therein stated. Such Supplemental Indenture making such amendment or modification shall be deemed conclusively binding upon the Trustee and the Owners of all Bonds at the expiration of 40 days after the filing with the Trustee of proof of the mailing of such last mentioned notice, except in the event of a final decree of a court of competent jurisdiction setting aside such Supplemental Indenture in a legal action or equitable proceeding for such purpose commenced within such 40-day period; except that the Trustee and the City, during such 40-day period and any such further period during which any such action or

proceeding may be pending, shall be entitled in their absolute discretion to take such action, or to refrain from taking such action, with respect to such Supplemental Indenture as they may deem expedient.

*Section 9.08. Modifications by Unanimous Consent.* The terms and provisions of this Indenture and the rights and obligations of the City and of the Owners of the Bonds hereunder may be modified or amended in any respect upon the consent of the Owners of all the then Outstanding Bonds to the execution and delivery of such Supplemental Indenture, such consent to be given as provided in Section 9.07 except that no notice to the Owners of the Bonds shall be required; but no such modification or amendment shall change or modify any of the rights or obligations of the Trustee without its written assent thereto.

*Section 9.09. Exclusion of Bonds.* Bonds owned by or for the account of the City shall not be deemed Outstanding for the purpose of consent or other action or any calculation of Outstanding Bonds provided for in this Article, and the City shall not be entitled with respect to such Bonds to give any consent or take any other action provided for in this Article. At the time of any consent or other action taken under this Article, the City shall furnish the Trustee with a Certificate upon which the Trustee may rely, describing all Bonds so to be excluded.

*Section 9.10. Notation on Bonds.* Bonds authenticated and delivered after the effective date of any action taken as in this Article provided may, and, if the Trustee so determines, shall, bear a notation by endorsement or otherwise in form approved by the City and the Trustee as to such action, and in that case upon demand of the Owner of any Bond Outstanding at such effective date and presentation of his Bond for that purpose at the Designated Corporate Trust Office of the Trustee or upon any exchange or registration of transfer of any Bond Outstanding at such effective date, suitable notation shall be made on such Bond or upon any Bond issued upon any such exchange or registration of transfer by the Trustee as to any such action. If the City or the Trustee shall so determine, new Bonds so modified as in the opinion of the Trustee and the City to conform to such action shall be prepared, authenticated and delivered, and upon demand of the Owner of any Bond then Outstanding shall be exchanged, without cost to such Owner, for Bonds of the same maturity upon surrender of such Bond.

## ARTICLE X

### MISCELLANEOUS

*Section 10.01. Severability.* If any provision of this Indenture shall be held or deemed to be, or shall in fact be, illegal, inoperative or unenforceable, the same shall not affect any other provision or provisions herein contained or render the same invalid, inoperative or unenforceable to any extent whatever.

*Section 10.02. Payments Due on Saturdays, Sundays and Holidays.* If the date for making any payment, or the last date for the performance of any act or the exercise of any right, as provided in this Indenture, shall not be a Business Day, such payment may be made, act performed or right exercised on the next Business Day with the same force and effect as if done on the nominal date provided in this Indenture, and no interest shall accrue for the period after such nominal date.

*Section 10.03. Counterparts.* This Indenture may be simultaneously executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

*Section 10.04. Rules of Interpretation.* Unless expressly indicated otherwise, references to Sections or Articles are to be construed as references to Sections or Articles of this instrument as originally executed. Use of the words "herein," "hereby," "hereunder," "hereof, "hereinbefore," "hereinafter" and other equivalent words refer to this Indenture and not solely to the particular portion in which any such word is used. In the event of any conflict between the provisions of this Indenture and the Bond Ordinance (including in the form of Bond attached hereto as *Exhibit A*), the terms of this Indenture shall be deemed to control.

*Section 10.05. Captions.* The captions and headings in this Indenture are for convenience only and in no way define, limit or describe the scope or intent of any provisions or Sections of this Indenture.

[Signatures Appear on Following Page]

IN WITNESS WHEREOF, the City has caused these presents to be executed in its name and with its official seal hereunto affixed and attested by its duly authorized officials; and to evidence its acceptance of the trusts hereby created, the Trustee has caused these presents to be executed in its corporate name and with its corporate seal hereunto affixed and attested by its duly authorized officers, on the date first above written.

CITY OF CHICAGO

By:   
Carole L. Brown  
Chief Financial Officer

[SEAL]

Attest:

By:   
Andrea M. Valencia  
City Clerk

AMALGAMATED BANK OF CHICAGO

\_\_\_\_\_,  
as Trustee

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Authorized Signatory

IN WITNESS WHEREOF, the City has caused these presents to be executed in its name and with its official seal hereunto affixed and attested by its duly authorized officials; and to evidence its acceptance of the trusts hereby created, the Trustee has caused these presents to be executed in its corporate name and with its corporate seal hereunto affixed and attested by its duly authorized officers, on the date first above written.

CITY OF CHICAGO

By:   
Carole L. Brown  
Chief Financial Officer

[SEAL]

Attest:

By:   
Andrea M. Valencia  
City Clerk

AMALGAMATED BANK OF CHICAGO

as Trustee

By:   
Name: LINDA SUMNERALL  
Authorized Signatory

## EXHIBIT A

## FORM OF BOND

REGISTERED  
No. R-

\$ \_\_\_\_\_

# UNITED STATES OF AMERICA

## STATE OF ILLINOIS

## CITY OF CHICAGO

## **GENERAL OBLIGATION BOND SERIES 2019A**

See Reverse Side for  
Additional Provisions

Interest Maturity Date: Dated Date: CUSIP:  
Rate: \_\_\_\_% January 1, 20\_\_\_\_ April 10, 2019 167486D \_\_\_\_

Registered Owner: CEDE & CO.

**Principal Amount:**

The City of Chicago (the "City") hereby acknowledges itself to owe and for value received promises to pay to the Registered Owner identified above, or registered assigns as hereinafter provided, on the Maturity Date identified above, the Principal Amount identified above and to pay interest (computed on the basis of a 360-day year of twelve 30-day months) on such Principal Amount from the later of the date of this Bond or the most recent interest payment date to which interest has been paid at the Interest Rate per annum set forth above on January 1 and July 1 of each year commencing July 1, 2019, until said Principal Amount is paid. Principal of this Bond and redemption premium, if any, shall be payable in lawful money of the United States of America upon presentation and surrender at the designated corporate trust office of Amalgamated Bank of Chicago, Chicago, Illinois, as bond trustee, bond registrar and paying agent (the "Bond Registrar"). Payment of the installments of interest shall be made to the Registered Owner hereof as shown on the registration books of the City maintained by the Bond Registrar at the close of business on the 15th day of the month next preceding each interest payment date and shall be paid by check or draft of the Bond Registrar mailed to the address of such Registered Owner as it appears on such registration books or at such other address furnished in writing by such Registered Owner to the Bond Registrar or, at the option of any Registered Owner of \$1,000,000 or more in aggregate principal amount of the Bonds, by wire transfer of immediately available funds to such bank in the continental United States of America as the Registered Owner hereof shall request in writing to the Bond Registrar.

Reference is made to the further provisions of this Bond set forth on the reverse hereof and such further provisions shall for all purposes have the same effect as if set forth at this place.

It is certified and recited that all conditions, acts and things required by law to exist or to be done precedent to and in the issuance of this Bond did exist, have happened, and have been done and performed in regular and due form and time as required by law; that the indebtedness of the City, including the issue of Bonds of which this is one, does not exceed any limitation imposed by law; and that provision has been made for the collection of a direct annual tax sufficient to pay the interest hereon as it falls due and also to pay and discharge the principal hereof at maturity.

This Bond shall not be valid or become obligatory for any purpose until the certificate of authentication hereon shall have been signed by the Trustee.

IN WITNESS WHEREOF, the City of Chicago by the City Council has caused its corporate seal to be imprinted by facsimile hereon and this Bond to be signed by the duly authorized facsimile signature of the Mayor and attested by the facsimile signature of the City Clerk, all as of the Dated Date identified above.

(Facsimile Signature)

Mayor  
City of Chicago

Attest:

(Facsimile Signature)

City Clerk  
City of Chicago

[SEAL]

Date of Authentication: April 10, 2019

#### **CERTIFICATE OF AUTHENTICATION**

This Bond is one of the Bonds described in the within-mentioned Bond Ordinance and is one of the General Obligation Bonds, Series 2019A, of the City of Chicago.

AMALGAMATED BANK OF CHICAGO,  
as Trustee

By: (Manual Signature)  
Authorized Officer

**CITY OF CHICAGO  
GENERAL OBLIGATION BOND  
SERIES 2019A**

For the prompt payment of this Bond, both principal and interest, as aforesaid, as the same become due, and for the levy of taxes sufficient for that purpose, the full faith, credit and resources of the City irrevocably pledged.

This Bond is one of a series of Bonds aggregating the principal amount of \$721,980,000 issued pursuant to the constitutional home rule powers of the City for the purposes of (i) paying a portion of the costs of the Project; (ii) retiring all currently outstanding commercial paper notes of the City; (iii) funding certain capitalized interest on the Bonds; and (iv) paying costs of issuance of the Bonds, and was authorized by an Ordinance adopted by the City Council of the City on March 13, 2019 (the "*Bond Ordinance*") and pursuant to a Trust Indenture dated as of April 1, 2019 (the "*Indenture*"), by and between the City and the Trustee, for the purpose of issuing the Bonds.

The Bonds maturing on or after January 1, 2031, are redeemable prior to maturity at the option of the City, in whole or in part on any date on or after January 1, 2029, and if less than all of the outstanding Bonds are to be redeemed, the Bonds to be called shall be called from such maturities and interest rates as shall be determined by the City and if less than all of the Bonds of a single maturity and the same interest rate are to be redeemed then by lot within such maturity and interest rate in the manner hereinafter provided, the Bonds to be redeemed at the redemption price of 100% of the principal amount thereof being redeemed, plus accrued interest, if any, to the date of redemption.

The Bonds maturing on January 1, 2044, are subject to mandatory redemption prior to maturity on January 1 of the years 2041 to 2043, inclusive, and the Bonds maturing on January 1, 2049, are subject to mandatory redemption prior to maturity on January 1 of the years 2045 to 2048, inclusive, in each case at par and accrued interest to the date fixed for redemption.

In the event of the redemption of less than all the Bonds of like maturity and interest rate, the aggregate principal amount thereof to be redeemed shall be \$5,000 or an integral multiple thereof, and the Bond Registrar shall assign to each Bond of such maturity and interest rate a distinctive number for each \$5,000 principal amount of such Bond and shall select by lot from the numbers so assigned as many numbers as, at \$5,000 for each number, shall equal the principal amount of such Bonds to be redeemed. The Bonds to be redeemed shall be the Bonds to which were assigned numbers so selected; *provided* that only so much of the principal amount of each Bond shall be redeemed as shall equal \$5,000 for each number assigned to it and so selected.

In the event of the redemption of less than all of the Bonds of like maturity and interest rate, the Bonds to be redeemed will be selected pro-rata in the manner determined pursuant to the Bond Ordinance.

Notice of any such redemption shall be sent by first class mail not less than 30 days nor more than 60 days prior to the date fixed for redemption to the Registered Owner of each Bond to be redeemed at the address shown on the registration books of the City maintained by the Bond Registrar or at such other address as is furnished in writing by such Registered Owner to the Bond Registrar; *provided* that the failure to mail any such notice or any defect therein as to any Bond shall not affect the validity of the proceedings for the redemption of any other Bond. When so called for redemption, this Bond shall cease to bear interest on the specified redemption date, *provided* that funds for redemption are on deposit at the place of payment at that time, and shall not be deemed to be outstanding.

This Bond is transferable by the Registered Owner hereof in person or by its attorney duly authorized in writing at the designated corporate trust office of the Bond Registrar in Chicago, Illinois, but only in the manner, subject to the limitations and upon payment of the charges provided in the Bond Ordinance, and upon surrender and cancellation of this Bond. Upon such transfer a new Bond or Bonds of authorized denominations, of the same interest rate, series and maturity and for the same aggregate principal amount will be issued to the transferee in exchange therefor. The Bond Registrar shall not be required to transfer or exchange this Bond (A) after notice calling this Bond for redemption has been mailed, or (B) during a period of 15 days next preceding mailing of a notice of redemption of this Bond.

The Bonds are issued in fully registered form in the denomination of \$5,000 each or authorized integral multiples thereof. This Bond may be exchanged at the designated corporate trust office of the Bond Registrar for a like aggregate principal amount of Bonds of the same interest rate, series and maturity of other authorized denominations, upon the terms set forth in the Bond Ordinance.

The City and the Bond Registrar may deem and treat the Registered Owner hereof as the absolute owner hereof for the purpose of receiving payment of or on account of principal hereof and interest due hereon and redemption premium, if any, and for all other purposes and neither the City nor the Bond Registrar shall be affected by any notice to the contrary.

**(ASSIGNMENT)**

FOR VALUE RECEIVED, the undersigned sells, assigns and transfers unto \_\_\_\_\_

(Name and Address of Assignee)

the within Bond and irrevocably constitutes and appoints \_\_\_\_\_

attorney to transfer the said Bond on the books kept for registration thereof with full power of substitution in the premises.

Dated: \_\_\_\_\_

Signature guaranteed: \_\_\_\_\_

NOTICE: The signature to this assignment must correspond with the name of the Registered Owner as it appears upon the face of the within Bond in every particular, without alteration or enlargement or any change whatever.

## EXHIBIT B

### FORM OF PROJECT FUND REQUISITION

**To:** Amalgamated Bank of Chicago, as Trustee

**Re:** City of Chicago General Obligation Bonds, Series 2019A ("2019A Bonds")

**Requisition No.** \_\_\_\_\_

**Date:** \_\_\_\_\_

Ladies and Gentlemen:

You are requested to disburse funds from the "City of Chicago General Obligation Bonds, Series 2019A Project Fund" (the "Project Fund") pursuant to Section 4.04 of the Indenture (defined below) in the amount(s) and for the purpose(s) set forth on Exhibit A to this requisition (this "Requisition") and within the limits of (i) the Project Fund subaccount not to exceed amounts and (ii) the proceeds of the 2019A Bonds allocated to each Project Fund subaccount, each as set forth in Exhibit A. The terms used in this Requisition shall have the meanings given to those terms in the Trust Indenture (the "Indenture"), dated as of April 1, 2019, by and between the City of Chicago and Amalgamated Bank of Chicago, as Trustee, securing the above referenced 2019A Bonds.

The undersigned certifies that:

- (i) the costs in an aggregate amount set forth in this Requisition are necessary and appropriate Project Costs that (a) have been incurred and paid or (b) are expected to be paid within the next 60 days;
- (ii) the amount to be paid or reimbursed to the City as set forth in this Requisition is reasonable and represents a part of the amount payable for the Project Costs and such payment is to be made or, in the case of reimbursement to the City, was made, in accordance with the terms of any applicable contracts and in accordance with usual and customary practice under existing conditions;
- (iii) no part of the Project Costs that are the subject of this Requisition was included in any requisition previously filed with the Trustee under the provisions of this Indenture;
- (iv) the use of the money so withdrawn from the Series 2019A Project Fund and the use of the facilities provided with such moneys will not result in a violation of any applicable covenant, term or provision of the Tax Certificate; and
- (v) there shall be no use, transfer or reallocation of the sales proceeds of the 2019A Bonds that deviates from the limitations and allocations of the not to exceed principal amounts pertaining to each purpose for which the 2019A Bonds were issued, all as set forth in the Bond Ordinance.

Payment instructions sufficient to make the requested disbursement are provided by the City and attached hereto.

This Requisition is executed and delivered as of the date first set forth above.

CITY OF CHICAGO

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## Exhibit A

Project Fund Subaccount	Not to Exceed Ordinance Amount	Bond Proceeds Amount	Transfer from Investment Earnings Account	Amount Distributed to Date	Requisition Amount
2018-19 Aldermanic Menu	\$110,000,000	\$107,724,208			
Rights of Way Improvements	70,000,000	70,000,000	N/A		
Economic Development Infrastructure	70,000,000	52,294,806			
Personal Property Acquisition	55,000,000	49,409,125			
Municipal Facility Improvements	75,000,000	75,000,000	N/A		
Public Safety Training Academy	65,000,000	65,000,000	N/A		
Copernicus Senior Center	1,000,000	1,000,000	N/A		
Humboldt Park Library	1,000,000	1,000,000	N/A		
West Belmont Library	1,000,000	1,000,000	N/A		
3 <sup>rd</sup> District Police Station	5,000,000	5,000,000	N/A		
Smart Lighting Program	140,000,000	130,353,754			
Legler Library	5,000,000	5,000,000	N/A		
Engine Company 115	30,000,000	30,000,000	N/A		
<b>Total Requisition Amount</b>					

32765269.16\152996-00006

## SCHEDULE I

### TERMS OF BONDS

1. Aggregate Principal Amount: \$721,980,000
2. Date of Issuance (Expected to be April 10, 2019)
3. Maturities, Principal Amounts, Interest Rates, Prices and CUSIP Numbers:

**\$721,980,000**  
**City of Chicago**  
**General Obligation Bonds, Series 2019A**

<b>Maturity (January 1)</b>	<b>Principal Amount</b>	<b>Interest Rate</b>	<b>Yield</b>	<b>Price</b>	<b>CUSIP<sup>†</sup> No.</b>
2027	\$21,070,000	5.000%	3.45%	110.427%	167486D30
2028	30,090,000	5.000	3.51	111.109	167486D48
2029	15,725,000	5.000	3.59	111.483	167486D55
2031	11,730,000	5.000	3.76	110.016 <sup>c</sup>	167486D63
2035	50,500,000	5.500	3.96	112.323 <sup>c</sup>	167486D71
2039	46,900,000	5.000	4.27	105.753 <sup>c</sup>	167486D89
2040	59,675,000	5.000	4.30	105.509 <sup>c</sup>	167486D97

\$222,235,000 5.00% Series 2019A Term Bond Due January 1, 2044, Yield 4.40%, Price 104.699%<sup>c</sup>, CUSIP<sup>†</sup> No. 167486E21  
\$264,055,000 5.50% Series 2019A Term Bond Due January 1, 2049, Yield 4.35%, Price 109.033%<sup>c</sup>, CUSIP<sup>†</sup> No. 167486E39

<sup>c</sup> Priced to call date of January 1, 2029.

*Redemption.* The 2019A Bonds are subject to both optional and mandatory redemption prior to maturity, as described below. The 2019A Bonds shall be redeemed only in principal amounts of \$5,000 and integral multiples thereof (“Authorized Denominations”).

#### *Optional Redemption of 2019A Bonds.*

The 2019A Bonds maturing on or after January 1, 2031 are subject to redemption at the option of the City, on any date occurring on or after January 1, 2029, in such principal amounts and from such maturities and interest rates as the City shall determine and by lot within a single maturity and interest rate, at a Redemption Price of 100% of the principal amount thereof being redeemed plus accrued interest, if any, to the date of redemption. No redemption of less than all of the 2019A Bonds Outstanding shall be made unless the aggregate principal amount of 2019A Bonds to be redeemed is equal to \$5,000 multiples. Any redemption of less than all of the 2019A Bonds Outstanding shall be made in such a manner that all 2019A Bonds Outstanding after such redemption are in Authorized Denominations. If fewer than all 2019A Bonds Outstanding are to be optionally redeemed, the 2019A Bonds to be called shall be called from such maturities and interest rates as may be determined by an Authorized Officer.

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<sup>†</sup> Copyright, American Bankers Association (“ABA”). CUSIP data herein are provided by CUSIP Global Services, operated on behalf of the ABA by S&P Global Market Intelligence, a division of S&P Global Inc. The CUSIP numbers listed above are being provided solely for the convenience of holders of the 2019A Bonds only at the time of issuance of the 2019A Bonds and neither the Corporation nor the Underwriters make any representation with respect to such numbers or undertakes any responsibility for their accuracy now or at any time in the future. The CUSIP number for a specific maturity is subject to being changed after the issuance of the 2019A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the 2019A Bonds.

*Mandatory Redemption of 2019A Bonds.*

The 2019A Term Bonds maturing on January 1, 2044 and January 1, 2049 are subject to mandatory redemption prior to maturity at a Redemption Price on January equal to 100% of the principal amount being redeemed, plus accrued interest to the date of redemption, on the dates and in the amounts set forth below:

**Series 2019A Bonds maturing on January 1, 2044**

<u>Year</u> <u>(January 1)</u>	<u>Principal</u> <u>Amount</u>
2041	\$35,385,000
2042	37,210,000
2043	72,995,000
2044 <sup>†</sup>	76,645,000

<sup>†</sup>Final maturity

**Series 2019A Bonds maturing on January 1, 2049**

<u>Year</u> <u>(January 1)</u>	<u>Principal</u> <u>Amount</u>
2045	\$47,310,000
2046	49,915,000
2047	52,660,000
2048	55,555,000
2049 <sup>†</sup>	58,615,000

<sup>†</sup>Final maturity

**SCHEDULE II**  
**PAYMENT OF OUTSTANDING INDEBTEDNESS**

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## SOURCES AND USES OF FUNDS

### City of Chicago General Obligation Series 2019A - Final Pricing

Dated Date            04/10/2019  
Delivery Date        04/10/2019

#### Sources:

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Bond Proceeds:	
Par Amount	721,980,000.00
Premium	55,023,924.10
	<hr/>
	777,003,924.10
	<hr/>

#### Uses:

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Project Fund Deposits:	
Project Fund	592,781,893.00
CP Takeout	150,230,000.00
	<hr/>
	743,011,893.00

Other Fund Deposits:	
Capitalized Interest Fund	27,312,036.88

Delivery Date Expenses:	
Cost of Issuance	1,754,363.07
Underwriter's Discount	4,925,631.15
	<hr/>
	6,679,994.22

777,003,924.10

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<b>Facility</b>	<b>Series/ Year</b>	<b>Borrowing Authority</b>	<b>CP Takeout (\$ in thousands)</b>		<b>Bank</b>	<b>Ratings Thresholds</b>		
			<b>Amount Outstanding (March 1, 2019)</b>	<b>Expiration or Termination</b>		<b>Kroll</b>	<b>Fitch</b>	<b>S&amp;P</b>
Commercial Paper <sup>(1)</sup>	2002E	\$200,000	\$150,230	5/31/2020	BANA	BBB-	BBB-	BBB-

Source: City of Chicago, Department of Finance.

**SCHEDULE III**  
**NOTIFICATION OF TAX ABATEMENT**

STATE OF ILLINOIS )  
                     ) SS  
COUNTY OF COOK )

## **NOTIFICATION OF TAX ABATEMENT**

**CITY OF CHICAGO**  
**\$721,980,000**  
**GENERAL OBLIGATION BONDS,**  
**SERIES 2019A**

To: The City Council of the City of Chicago and the County Clerks of The Counties of Cook and DuPage, Illinois

Please be advised that responsive to authority contained in an Ordinance (the "Ordinance") adopted by the City Council (the "City Council") of the City of Chicago (the "City") on March 13, 2019, authorizing the issuance of up to \$850,000,000 aggregate principal amount of general obligation bonds of the City, plus original issue discount, on April 10, 2019 the City issued \$721,980,000 aggregate principal amount of General Obligation Bonds, Series 2019A (the "Bonds"), having the terms described in that certain Bond Purchase Agreement, dated March 26, 2019 (the "Bond Purchase Agreement"), between the City and Barclays Capital Inc., acting on behalf of itself and as representative of certain underwriters named therein (the "Underwriters").

Capitalized terms used herein without definition have the meanings assigned to such terms in the Ordinance.

Notification of the sale of the Bonds to the City Council and of the determinations made by the Chief Financial Officer of the City with respect to the sale of the Bonds, the filing of the Bond Purchase Agreement, and the Official Statement for the Bonds, all as provided for or required by the Ordinance was made by the filing with the City Clerk of a Notification of Sale executed and delivered by the Chief Financial Officer on the date of issuance of the Bonds.

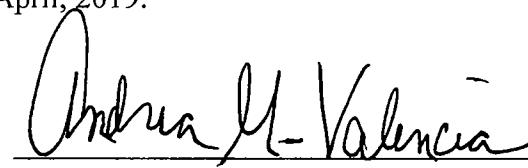
Please be further advised that Section 7 of the Ordinance provides for a direct annual tax in and for each of the years 2019 to 2058, inclusive, to pay the interest on the Bonds promptly when and as the same falls due and to pay and discharge the principal thereof at maturity. Pursuant to Section 12 of the Ordinance, please be further advised that the amount of the annual tax levy requirements for the payment of the principal of and interest on the Bonds resulting from the sale of the Bonds is less than the levy of taxes authorized in Section 7 of the Ordinance. I have determined that a reduction in the amount of the tax levy in the years 2019 to 2058, inclusive, is deemed desirable in connection with the sale of the Bonds. The amount of the taxes levied in the Ordinance to pay debt service on the Bonds, the amount of the taxes to be abated resulting from the sale of the Bonds, and the remainder of the taxes levied which is to be extended for collection are as follows:

LEVY YEAR	AMOUNT LEVIED IN THE ORDINANCE	EXCESS LEVY TO BE ABATED	TAX TO BE EXTENDED FOR PAYMENT OF THE BONDS
2019	\$500,000,000	\$462,328,225	\$37,671,775
2020	500,000,000	462,328,225	37,671,775
2021	500,000,000	462,328,225	37,671,775
2022	500,000,000	462,328,225	37,671,775
2023	500,000,000	462,328,225	37,671,775
2024	500,000,000	462,328,225	37,671,775
2025	500,000,000	441,258,225	58,741,775
2026	500,000,000	433,291,725	66,708,275
2027	500,000,000	449,161,225	50,838,775
2028	500,000,000	465,672,475	34,327,525
2029	500,000,000	453,942,475	46,057,525
2030	500,000,000	466,258,975	33,741,025
2031	500,000,000	466,258,975	33,741,025
2032	500,000,000	466,258,975	33,741,025
2033	500,000,000	415,758,975	84,241,025
2034	500,000,000	469,036,475	30,963,525
2035	500,000,000	469,036,475	30,963,525
2036	500,000,000	469,036,475	30,963,525
2037	500,000,000	422,136,475	77,863,525
2038	500,000,000	411,706,475	88,293,525
2039	700,000,000	638,980,225	61,019,775
2040	700,000,000	638,924,475	61,075,525
2041	700,000,000	604,999,975	95,000,025
2042	700,000,000	604,999,725	95,000,275
2043	700,000,000	638,116,975	61,883,025
2044	700,000,000	638,164,025	61,835,975
2045	700,000,000	638,164,350	61,835,650
2046	700,000,000	638,165,650	61,834,350
2047	700,000,000	638,161,175	61,838,825
2048	700,000,000	700,000,000	0
2049	700,000,000	700,000,000	0
2050	700,000,000	700,000,000	0
2051	700,000,000	700,000,000	0
2052	700,000,000	700,000,000	0
2053	700,000,000	700,000,000	0
2054	700,000,000	700,000,000	0
2055	700,000,000	700,000,000	0
2056	700,000,000	700,000,000	0
2057	700,000,000	700,000,000	0
2058	700,000,000	700,000,000	0

**ACKNOWLEDGEMENT OF FILING  
NOTIFICATION OF TAX ABATEMENT**

The foregoing Notification of Tax Abatement relating to \$721,980,000 aggregate principal amount of General Obligation Bonds, Series 2019A of the City of Chicago (the "City") has been filed in my office as City Clerk of the City and is part of the official files and records of my office.

IN WITNESS WHEREOF, I have hereunto affixed my signature and caused to be affixed hereto the corporate seal of the City this 9<sup>th</sup> day of April, 2019.



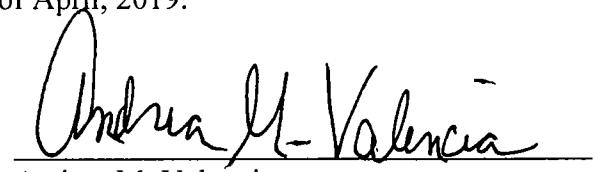
Andrea M. Valencia  
Andrea M. Valencia  
City Clerk

[SEAL]

**ACKNOWLEDGEMENT OF FILING  
NOTIFICATION OF SALE**

The foregoing Notification of Sale relating to \$721,980,000 aggregate principal amount of General Obligation Bonds, Series 2019A of the City of Chicago (the "*City*") has been filed in my office as City Clerk of the City and is part of the official files and records of my office.

IN WITNESS WHEREOF, I have hereunto affixed my signature and caused to be affixed hereto the corporate seal of the City this 10<sup>th</sup> day of April, 2019.



Andrea M. Valencia  
Andrea M. Valencia  
City Clerk

[SEAL]

32922241 2\088888-04460

Acknowledgement of Filing Notification of Sale  
Signature Page of City Clerk

**NEW ISSUE-GLOBAL BOOK ENTRY****RATINGS: See "RATINGS" herein.**

*Subject to the accuracy of certain representations and continuing compliance by the City of Chicago with certain covenants, in the respective opinions of Miller, Canfield, Paddock & Stone, P.L.C. and Zuber Lawler & Del Duca LLP, Co-Bond Counsel, under present law, interest on the 2019A Bonds is excludable from the gross income of their owners for federal income tax purposes and thus is exempt from present federal income taxes based upon gross income. Such interest is not included as an item of tax preference in computing the federal alternative minimum tax. See "TAX MATTERS" in this Official Statement for a more complete discussion of these matters. Interest on the 2019A Bonds is not exempt from present Illinois income taxes.*



**\$721,980,000  
CITY OF CHICAGO  
General Obligation Bonds  
Series 2019A**

**Dated: Date of Delivery****Due: January 1, as shown on the inside front cover**

The City of Chicago General Obligation Bonds, Series 2019A (the "2019A Bonds") are issuable as fully registered bonds and will be registered in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the 2019A Bonds. Purchasers of the 2019A Bonds will not receive certificates representing their interests in the 2019A Bonds purchased. Ownership by the beneficial owners of the 2019A Bonds will be evidenced by book-entry only. The 2019A Bonds are issuable in denominations of \$5,000 or any integral multiple thereof.

Interest on the 2019A Bonds will accrue from the date of issuance and be payable on each January 1 and July 1, commencing July 1, 2019. Principal of and interest on the 2019A Bonds will be paid by Amalgamated Bank of Chicago, Chicago, Illinois, as trustee under the Indenture described herein, to DTC, which in turn will remit such principal and interest payments to its participants for subsequent disbursement to the beneficial owners of the 2019A Bonds. As long as Cede & Co. is the registered owner as nominee of DTC, payments on the 2019A Bonds will be made to such registered owner, and disbursal of such payments will be the responsibility of DTC and its participants. See APPENDIX F—"BOOK-ENTRY ONLY SYSTEM."

The proceeds of the 2019A Bonds will be used to (i) pay a portion of the costs of the 2019A Projects; (ii) retire all currently outstanding commercial paper notes of the City; (iii) fund certain capitalized interest on the 2019A Bonds; and (iv) pay costs of issuance of the 2019A Bonds. See "PLAN OF FINANCING", "SOURCES AND USES OF FUNDS" and "GENERAL OBLIGATION DEBT—Short-Term Borrowing Program."

The 2019A Bonds are subject to redemption prior to maturity as described herein. See "THE 2019A BONDS—Redemption."

***For maturities, principal amounts, interest rates, yields, prices and CUSIP numbers of the 2019A Bonds, see the inside front cover.***

The 2019A Bonds are direct and general obligations of the City and all taxable property in the City is subject to a levy of *ad valorem* property taxes to pay the 2019A Bonds and the interest thereon without limitation as to rate or amount. The City has pledged its full faith and credit for the payment of the principal of and interest on the 2019A Bonds. See "SECURITY FOR THE 2019A BONDS" herein.

Prospective investors should read this Official Statement in its entirety prior to making an investment decision to purchase the 2019A Bonds.

*The 2019A Bonds are being offered when, as and if issued, and subject to the delivery of approving legal opinions by Miller, Canfield, Paddock & Stone, P.L.C., Chicago, Illinois, and Zuber Lawler & Del Duca LLP, Chicago, Illinois, Co-Bond Counsel, and to certain other conditions. Certain legal matters will be passed on for the City by (i) its Corporation Counsel, (ii) in connection with the preparation of this Official Statement, Cotillas and Associates, Chicago, Illinois, Disclosure Counsel to the City, and (iii) in connection with certain pension matters described in this Official Statement, Chapman and Cutler LLP, Chicago, Illinois, Special Disclosure Counsel to the City. Certain legal matters will be passed on for the Underwriters by Katten Muchin Rosenman LLP, Chicago, Illinois, Underwriters' Counsel. It is expected that the 2019A Bonds will be available for delivery through the facilities of DTC on or about April 10, 2019.*

**Barclays**

**Cabrera Capital Markets, LLC  
North South Capital LLC**

**IFS Securities, Inc.  
Ramirez & Co., Inc.**

**Mischler Financial Group, Inc.  
Rice Financial Products Company**



**MATURITIES, AMOUNTS, INTEREST RATES, YIELDS, PRICES AND CUSIP NUMBERS**

**City of Chicago  
\$721,980,000  
General Obligation Bonds  
Series 2019A**

**\$235,690,000 Series 2019A Serial Bonds**

<b>Maturity (January 1)</b>	<b>Principal Amount</b>	<b>Interest Rate</b>	<b>Yield</b>	<b>Price</b>	<b>CUSIP*</b>
2027	\$21,070,000	5.00%	3.45%	110.427	167486D30
2028	30,090,000	5.00%	3.51%	111.109	167486D48
2029	15,725,000	5.00%	3.59%	111.483	167486D55
2031	11,730,000	5.00%	3.76%	110.016 <sup>c</sup>	167486D63
2035	50,500,000	5.50%	3.96%	112.323 <sup>c</sup>	167486D71
2039	46,900,000	5.00%	4.27%	105.753 <sup>c</sup>	167486D89
2040	59,675,000	5.00%	4.30%	105.509 <sup>c</sup>	167486D97

**\$222,235,000 5.00% Series 2019A Term Bond Due January 1, 2044, Price 104.699<sup>c</sup>, Yield 4.40%  
CUSIP\* 167486E21**

**\$264,055,000 5.50% Series 2019A Term Bond Due January 1, 2049, Price 109.033<sup>c</sup>, Yield 4.35%  
CUSIP\* 167486E39**

<sup>c</sup> Priced to first optional call date of January 1, 2029.

\* Copyright, American Bankers Association ("ABA"). CUSIP data herein are provided by CUSIP Global Services, operated on behalf of the ABA by S&P Global Market Intelligence, a division of S&P Global, Inc. The CUSIP numbers listed are being provided solely for the convenience of the bondholders only at the time of issuance of the 2019A Bonds and neither the City nor the Underwriters make any representations with respect to such numbers or undertake any responsibility for their accuracy now or at any time in the future. The CUSIP number for a specific maturity is subject to change after the issuance of the 2019A Bonds as a result of various subsequent actions, including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the 2019A Bonds.



**CITY OF CHICAGO**

**MAYOR**

Rahm Emanuel

**CITY TREASURER**

Kurt A. Summers, Jr.

**CITY COUNCIL**

**COMMITTEE ON FINANCE**

Patrick O'Connor, Acting Chairman

**CHIEF FINANCIAL OFFICER**

Carole L. Brown

**CITY COMPTROLLER**

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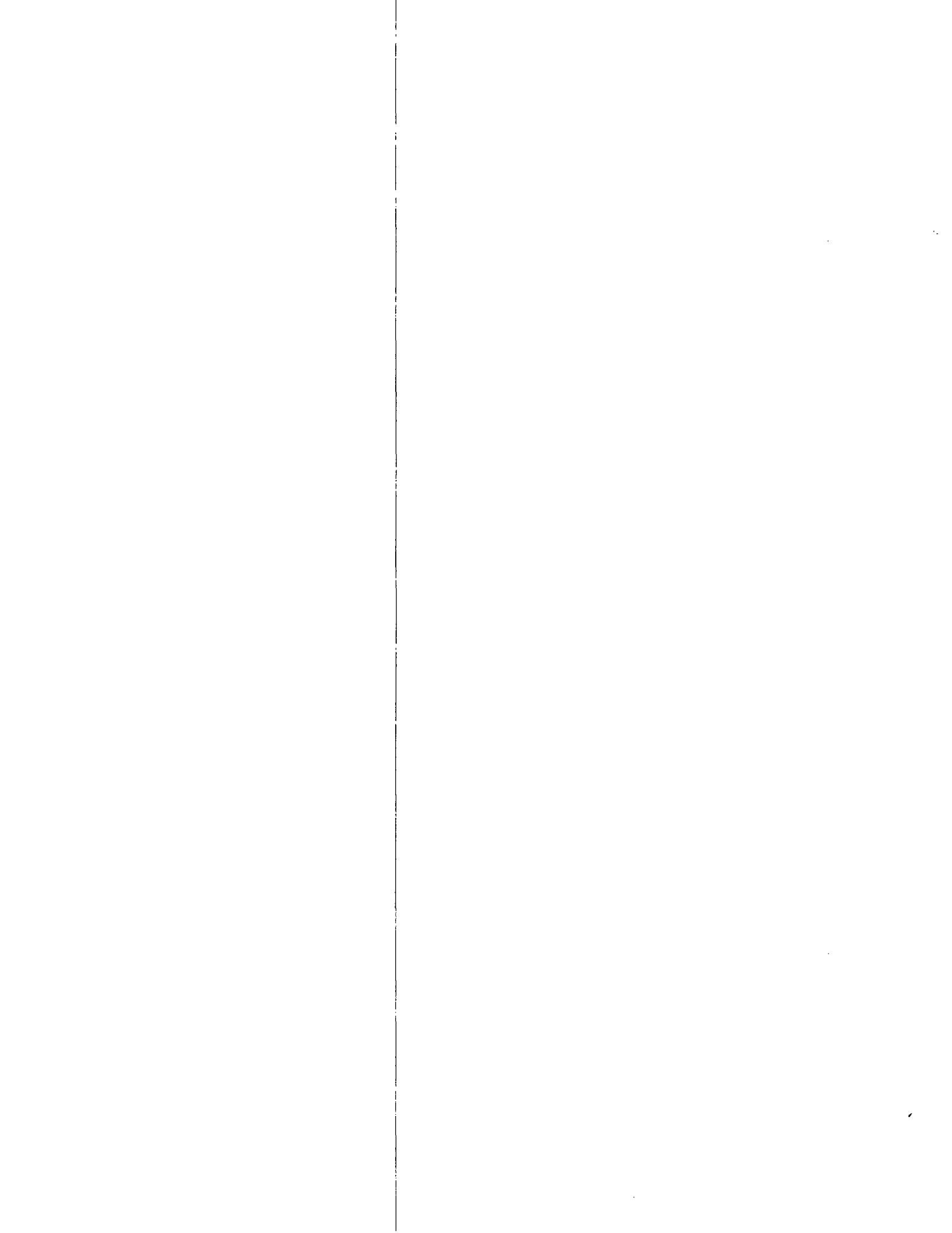
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Certain information contained or incorporated by reference in this Official Statement has been obtained by the City, from DTC and other sources that are deemed reliable. No representation or warranty is made, however, as to the accuracy or completeness of such information. The references in this Official Statement to the 2019A Bonds, the Bond Ordinance and the Indenture and the summaries thereof do not purport to be complete or definitive and are qualified in their entirety by reference to the provisions thereof. The information and expressions of opinion in this Official Statement are subject to change without notice, and neither the delivery of this Official Statement nor any sale of 2019A Bonds pursuant to this Official Statement shall under any circumstances create the implication that there has been no change in the matters referred to in this Official Statement since the date hereof. Prospective purchasers of the 2019A Bonds are expected to conduct their own review and analysis before making an investment decision.

No dealer, broker, salesperson or any other person has been authorized by the City or the Underwriters to give any information or to make any representation other than as contained or incorporated by reference in this Official Statement in connection with the offering described herein and, if given or made, such other information or representation must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy any securities other than those described on the cover page, nor shall there be any offer to sell, solicitation of an offer to buy or sale of such securities in any jurisdiction in which it is unlawful to make such offer, solicitation or sale. Neither this Official Statement nor any statement that may have been made verbally or in writing is to be construed as a contract with the registered or beneficial owners of the 2019A Bonds.

This Official Statement, including the Appendices, contains certain opinions, estimates and forward-looking statements and information, including projections, that are based on the City's beliefs as well as assumptions made by and information currently available to the City. Such opinions, estimates, projections and forward-looking statements set forth in this Official Statement were not prepared with a view toward complying with the guidelines established by the American Institute of Certified Public Accountants with respect to prospective financial information, but, in the view of the City, were prepared on a reasonable basis, reflect the best currently available estimates and judgments, and present, to the best of the City's knowledge and belief, the expected course of action and the expected future financial performance of the City. However, this information is not fact and should not be relied upon as being necessarily indicative of future results, and readers of this Official Statement are cautioned not to place undue reliance on such opinions, statements or prospective financial information.

The prospective financial information set forth in this Official Statement, except for certain information sourced to parties other than the City, is solely the product of the City. Neither the City's independent auditors, nor any other independent auditors, have compiled, examined, or performed any procedures with respect to, or been consulted in connection with the preparation of, the prospective financial information contained herein. The City's independent auditors assume no responsibility for the content of the prospective financial information set forth in this Official Statement, disclaim any association with such prospective financial information, and have not, nor have any other independent auditors, expressed any opinion or any other form of assurance on such information or its achievability.

The 2019A Bonds have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this document. Any representation to the contrary is a criminal offense.

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

Each Underwriter has provided the following sentence for inclusion in this Official Statement. The respective Underwriter has reviewed the information in this Official Statement in accordance with, and as part of, its responsibility to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but such Underwriter does not guarantee the accuracy or completeness of such information.

**THE 2019A BONDS WILL NOT BE REGISTERED UNDER THE SECURITIES ACT OF 1933, NOR HAS THE INDENTURE BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939.**

IN CONNECTION WITH THE OFFERING OF THE 2019A BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICES OF THE 2019A BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE PRICES AND OTHER TERMS RESPECTING THE OFFERING AND SALE OF THE 2019A BONDS MAY BE CHANGED FROM TIME TO TIME BY THE UNDERWRITERS AFTER THE 2019A BONDS ARE RELEASED FOR SALE, AND THE 2019A BONDS MAY BE OFFERED AND SOLD AT PRICES OTHER THAN THE INITIAL OFFERING PRICES, INCLUDING SALES TO DEALERS WHO MAY SELL THE 2019A BONDS INTO INVESTMENT ACCOUNTS.

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## OFFICIAL STATEMENT

**\$721,980,000  
CITY OF CHICAGO  
General Obligation Bonds  
Series 2019A**

## INTRODUCTION

This Official Statement is furnished by the City of Chicago (the “*City*”) to provide information with respect to the City’s \$721,980,000 General Obligation Bonds, Series 2019A (the “*2019A Bonds*”). Certain capitalized terms used in this Official Statement, unless otherwise defined, are defined in APPENDIX A—“SUMMARY OF THE INDENTURE—Glossary of Terms.”

The 2019A Bonds are direct and general obligations of the City and all taxable property in the City is subject to the levy of *ad valorem* property taxes to pay the 2019A Bonds and the interest thereon without limitation as to rate or amount. The 2019A Bonds shall be payable, as to principal and interest, from any moneys, revenues, receipts, income, assets or funds of the City legally available for such purpose, including, but not limited to, the proceeds of a direct annual tax levied by the City in the Bond Ordinance (hereinafter defined) upon all taxable property located in the City sufficient to pay the principal of and interest on the 2019A Bonds. The City has pledged its full faith and credit to the payment of the 2019A Bonds. See “SECURITY FOR THE 2019A BONDS.”

The proceeds of the 2019A Bonds will be used to (i) pay a portion of the costs of the 2019A Projects; (ii) retire all currently outstanding commercial paper notes of the City; (iii) fund certain capitalized interest on the 2019A Bonds; and (iv) pay costs of issuance of the 2019A Bonds. See “PLAN OF FINANCING”, “SOURCES AND USES OF FUNDS” and “GENERAL OBLIGATION DEBT—Short-Term Borrowing Program.”

The 2019A Bonds are being issued under the authority granted to the City as a home rule unit of local government under the Illinois Constitution of 1970 (the “*State Constitution*”). The 2019A Bonds are authorized by an ordinance adopted by the City Council of the City (the “*City Council*”) on March 13, 2019 (the “*Bond Ordinance*”) and are being issued pursuant to a Trust Indenture (the “*Indenture*”), dated as of April 1, 2019, between the City and Amalgamated Bank of Chicago, as trustee (the “*Trustee*”).

## THE CITY

### General

Chicago is the third largest city in the United States with a population of approximately 2.7 million. The City, located on the shores of Lake Michigan in the Midwestern United States, is the commercial and cultural center of a large and diverse regional economy. Trade, transportation, utilities, professional and business services, education and health services, government, leisure and hospitality and manufacturing are among the Chicago region’s largest industry sectors. The City’s transportation and distribution network includes Chicago O’Hare International Airport, Chicago Midway International Airport, rail traffic interchanges for the country’s six largest freight railroad companies, and two ports capable of handling

ocean-going ships and barges. See APPENDIX B – “ECONOMIC AND DEMOGRAPHIC INFORMATION.”

## **Government**

The City was incorporated in 1837. The City is a municipal corporation and home rule unit of local government under the State Constitution and as such, “may exercise any power and perform any function pertaining to its government and affairs including, but not limited to, the power to regulate for the protection of the public health, safety, morals and welfare; to license; to tax; and to incur debt” except that it can “impose taxes upon or measured by income or earnings or upon occupation” only if authorized by statute.

The Mayor and the City Council govern the City. The City Clerk and the City Treasurer along with the Mayor are the only three Citywide elected officials. The City is divided into fifty legislative districts, or wards. Each ward is represented by an alderman who is elected by their constituency. The Citywide officials and the fifty aldermen are elected to serve coterminous four-year terms. The next four-year term will commence on May 20, 2019. The fifty aldermen comprise the City Council, which serves as the legislative branch of government of the City. The legislative powers of the City Council are granted by the State of Illinois (the “State”) legislature and by home rule provisions of the State Constitution.

As the legislative body of the City, the City Council usually meets once every month to exercise general and specific powers delegated by State law. The City Council votes on loans extended by the City that exceed certain limits, bond issues, the City’s short-term borrowing programs (whether general obligation or revenue), land acquisitions and sales, zoning changes, traffic control issues, certain mayoral appointees, and financial appropriations. Its standing committees work with individual departments on the execution of City activities, and review proposed ordinances, resolutions and orders before they are voted on by the full City Council.

The Committee on Finance of the City Council considers ordinances, orders or resolutions that are referred or submitted to the Committee on Finance by aldermen, the Office of the Mayor, various City departments, and the general public. The Committee on Finance has jurisdiction over financial matters, including tax levies; general obligation bonds and notes and revenue bonds; the financing of municipal services and capital improvements; matters generally affecting the Department of Finance, the City Comptroller, and the City Treasurer; the Condominium Refuse Rebate Program; and all pecuniary claims against the City.

## **THE 2019A BONDS**

### **General**

The 2019A Bonds mature on January 1 of the years and in the amounts set forth on the inside front cover of this Official Statement. The 2019A Bonds are fully registered bonds. The 2019A Bonds are issuable in denominations of \$5,000 or any integral multiple thereof.

Each 2019A Bond will bear interest at the rates set forth on the inside cover of this Official Statement from the later of its date or the most recent Interest Payment Date to which interest has been paid or duly provided for, until the principal amount of such 2019A Bond is paid, such interest being payable on January 1 and July 1 of each year, commencing on July 1, 2019. Interest on each 2019A Bond will be paid to the person in whose name such 2019A Bond is registered at the close of business on the Record Date next preceding the applicable Interest Payment Date.

The Trustee will serve as bond registrar and paying agent for the 2019A Bonds. The 2019A Bonds will initially be registered through a book-entry only system operated by The Depository Trust Company, New York, New York (“DTC”). Beneficial interests in the 2019A Bonds may be held through DTC, directly as a participant or indirectly through organizations that are participants in DTC. Details of payments of the 2019A Bonds and the book-entry only system are described in APPENDIX F — “BOOK-ENTRY ONLY SYSTEM”. Except as described in APPENDIX F — “BOOK-ENTRY ONLY SYSTEM”, beneficial owners of the 2019A Bonds will not receive or have the right to receive physical delivery of the 2019A Bonds and will not be or be considered to be the registered owners thereof. Accordingly, beneficial owners must rely upon (i) the procedures of DTC and, if such beneficial owner is not a DTC Direct Participant or Indirect Participant (as defined in APPENDIX F — “BOOK-ENTRY ONLY SYSTEM”), the Direct or Indirect Participant who will act on behalf of such beneficial owner to receive notices and payments of principal or Redemption Price of and interest on the 2019A Bonds, and to exercise voting rights and (ii) the records of DTC and, if such beneficial owner is not a Participant, such beneficial owner’s Direct or Indirect Participant, to evidence its beneficial ownership of the 2019A Bonds. So long as DTC or its nominee is the registered owner of the 2019A Bonds, references herein to Bondholders or registered owners of such 2019A Bonds means DTC or its nominee and do not mean the beneficial owners of such 2019A Bonds.

### **Payment of the 2019A Bonds**

The principal of the 2019A Bonds will be payable in lawful money of the United States of America which, at the respective dates of payment thereof, is legal tender for the payment of public and private debts, upon presentation and surrender thereof at the Designated Corporate Trust Office of the Trustee.

Interest on each 2019A Bond will be paid to the person in whose name such 2019A Bond is registered at the close of business on the Record Date next preceding the applicable Interest Payment Date, by check or draft of the Trustee, or, at the option of any registered owner of \$1,000,000 or more in aggregate principal amount of 2019A Bonds, by wire transfer of immediately available funds to such bank in the continental United States of America as the registered owner of such 2019A Bonds requests in writing to the Trustee.

### **Redemption**

The 2019A Bonds are subject to both optional and mandatory redemption prior to maturity, as described below. The 2019A Bonds shall be redeemed only in principal amounts of \$5,000 and integral multiples thereof.

#### *Optional Redemption of the 2019A Bonds*

The 2019A Bonds maturing on or after January 1, 2031 are subject to redemption prior to maturity at the option of the City, in whole or in part, on any date on or after January 1, 2029, and if less than all of the outstanding 2019A Bonds of a single maturity are to be redeemed, the 2019A Bonds called shall be called by lot, in such principal amounts and from such maturities as the City shall determine, at a redemption price equal to the principal amount of the 2019A Bonds being redeemed plus accrued interest to the date fixed for redemption.

The City is authorized to sell (at prices as the City shall determine) or waive any right the City may have to call any of the 2019A Bonds for optional redemption, in whole or in part; provided, that such sale or waiver does not adversely affect the excludability of interest on the 2019A Bonds from gross income for federal income tax purposes.

### *Mandatory Redemption*

The 2019A Term Bonds maturing on January 1, 2044 and January 1, 2049 are subject to mandatory redemption prior to maturity on January 1 of the years and in the amounts set forth below, at a Redemption Price equal to 100 percent of the principal amount thereof plus accrued interest to the date fixed for redemption:

#### **Series 2019A Bonds maturing on January 1, 2044**

<u>Year</u> <u>(January 1)</u>	<u>Principal</u> <u>Amount</u>
2041	\$35,385,000
2042	37,210,000
2043	72,995,000
2044 <sup>†</sup>	76,645,000

<sup>†</sup>Final maturity

#### **Series 2019A Bonds maturing on January 1, 2049**

<u>Year</u> <u>(January 1)</u>	<u>Principal</u> <u>Amount</u>
2045	\$47,310,000
2046	49,915,000
2047	52,660,000
2048	55,555,000
2049 <sup>†</sup>	58,615,000

<sup>†</sup>Final maturity

### *Reduction of Mandatory Redemption Amounts*

The principal amount of the 2019A Term Bonds to be mandatorily redeemed in each year may be reduced through the earlier optional redemption thereof. Any partial optional redemption of 2019A Term Bonds of a maturity will be credited against future mandatory redemption requirements for that maturity in such order of the mandatory redemption dates as the City may determine.

In addition, on or prior to the sixtieth (60th) day preceding any mandatory redemption date, the Trustee, if directed by the City, shall purchase the 2019A Term Bonds required to be retired on such mandatory redemption date at such prices as the City shall determine. Any 2019A Term Bond so purchased shall be cancelled and the principal amount thereof shall be credited against the payment required on such next mandatory redemption date.

### *Selection of 2019A Bonds for Redemption*

While the 2019A Bonds are registered in the book-entry system and so long as DTC or a successor securities depository is the sole registered owner of such 2019A Bonds, if less than all of the 2019A Bonds of a maturity are to be redeemed prior to maturity, the particular 2019A Bonds or portions of such 2019A Bonds will be selected by lot by DTC or such successor securities depository in such manner as DTC or such successor securities depository may determine. See APPENDIX F—“BOOK-ENTRY ONLY SYSTEM.” If the 2019A Bonds are not registered in the book-entry system, the following procedures for the selection of such 2019A Bonds shall apply.

If less than all the 2019A Bonds of like Maturity Date and interest rate shall be called for redemption under any provision of the Indenture permitting such partial redemption, (i) such redemption shall be by lot in such manner as the Trustee may determine among such 2019A Bonds, and (ii) subject to other applicable provisions of the Indenture, the portion of any 2019A Bond to be redeemed shall be in a principal amount equal to an Authorized Denomination. In selecting 2019A Bonds for redemption, the Trustee shall assign to each 2019A Bond of like Maturity Date and interest rate a distinctive number for each minimum Authorized Denomination of such 2019A Bond and shall select by lot from the numbers so assigned as many numbers as, at such minimum Authorized Denomination for each number, shall equal the principal amount of such 2019A Bonds to be redeemed. In such case, the 2019A Bonds to be redeemed shall be those to which were assigned numbers so selected; provided that only so much of the principal amount of each 2019A Bond shall be redeemed as shall equal such minimum Authorized Denomination for each number assigned to it and so selected. If it is determined that one or more, but not all, of the integral multiples of the Authorized Denomination of principal amount represented by any 2019A Bond is to be called for redemption, then, upon notice of intention to redeem such integral multiple of an Authorized Denomination, the Registered Owner of such 2019A Bond shall forthwith surrender such 2019A Bond to the Trustee for (a) payment to such Registered Owner of the Redemption Price of the integral multiple of the Authorized Denomination of principal amount called for redemption, and (b) delivery to such Registered Owner of a new 2019A Bond or 2019A Bonds in the aggregate principal amount of the unredeemed balance of the principal amount of such 2019A Bond. New 2019A Bonds representing the unredeemed balance of the principal amount of such 2019A Bonds shall be issued to the Registered Owner thereof without charge therefor.

#### *Notice of Redemption*

Unless waived by any owner of 2019A Bonds to be redeemed, notice of the call for any such redemption shall be given by the Trustee on behalf of the City by mailing the redemption notice by first class mail at least 30 days and not more than 60 days prior to the date fixed for redemption to the Registered Owner of the 2019A Bond or 2019A Bonds to be redeemed at the address shown on the Bond Register or at such other address as is furnished in writing by such Registered Owner to the Trustee, but the failure to mail any such notice or any defect therein as to any 2019A Bond shall not affect the validity of the proceedings for the redemption of any other 2019A Bond. Any notice of redemption mailed as provided under the Indenture shall be conclusively presumed to have been given whether or not actually received by the addressee. All notices of redemption with respect to the 2019A Bonds shall state: (1) the redemption date; (2) the Redemption Price; (3) if less than all outstanding 2019A Bonds are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts and interest rates) of the 2019A Bonds to be redeemed; (4) that on the redemption date the Redemption Price will become due and payable upon each such 2019A Bond or portion thereof called for redemption, and that interest thereon shall cease to accrue or compound from and after said date; (5) the place where such 2019A Bonds are to be surrendered for payment of the Redemption Price; and (6) such other information as shall be deemed necessary by the Trustee at the time such notice is given to comply with law, regulation or industry standard.

With respect to an optional redemption of 2019A Bonds, such notice may state that said redemption is conditioned upon the receipt by the Trustee on or prior to the date fixed for redemption of moneys sufficient to pay the applicable Redemption Price of such 2019A Bonds. If such moneys are not so received, such redemption notice shall be of no force and effect, the City shall not redeem such 2019A Bonds and such failure to deposit such funds shall not constitute an Event of Default under the Indenture. The Trustee shall give notice, in the same manner in which the notice of redemption was given, that such moneys were not so received and that such 2019A Bonds will not be redeemed. Unless the notice of redemption shall be made conditional as provided above, on or prior to any redemption date for the 2019A Bonds, the City shall deposit with the Trustee an amount of money sufficient to pay the applicable Redemption Price of all the 2019A Bonds or portions thereof which are to be redeemed on that date.

## **2019A Bonds Not Presented for Payment**

If any 2019A Bond is not presented for payment when the principal amount thereof becomes due, either at maturity or at a date fixed for redemption thereof or otherwise, and if moneys sufficient to pay such 2019A Bond are held by the Trustee for the benefit of the Registered Owner of such 2019A Bond, the Trustee shall hold such moneys for the benefit of the Registered Owner of such 2019A Bond without liability to the Registered Owner for interest. The Registered Owner of such 2019A Bond thereafter shall be restricted exclusively to such funds for satisfaction of any claims relating to such 2019A Bond.

## **Registration and Transfers**

The Bond Register for the registration and transfer of the 2019A Bonds will be kept at the Designated Corporate Trust Office of the Trustee, as the registrar for the City in connection with the 2019A Bonds. See APPENDIX F—“BOOK-ENTRY ONLY SYSTEM” for a discussion of registration and transfer of the beneficial ownership interests in 2019A Bonds while they are in the book-entry system. The following provisions relate to the registration and transfer of 2019A Bonds when such 2019A Bonds are in certificated form.

Subject to the limitations described in the following paragraph, (i) upon surrender for registration of transfer of any 2019A Bond at the Designated Corporate Trust Office of the Trustee, duly endorsed by, or accompanied by a written instrument or instruments of transfer in form satisfactory to the Trustee and duly executed by the 2019A Bondholder or such 2019A Bondholder’s attorney duly authorized in writing in such form and with guarantee of signature as shall be satisfactory to the Trustee, the City shall execute, and the Trustee shall authenticate and deliver, in the name of the transferee or transferees, one or more fully registered 2019A Bonds of the same Maturity Date of Authorized Denominations, for a like principal amount bearing numbers not contemporaneously outstanding and (ii) 2019A Bonds may be exchanged at the Designated Corporate Trust Office of the Trustee for a like aggregate principal amount of 2019A Bonds of the same Maturity Date of other Authorized Denominations bearing numbers not contemporaneously outstanding.

The Trustee shall not be required to transfer or exchange any 2019A Bond during the period commencing on the Record Date next preceding any Interest Payment Date of such 2019A Bond and ending on such Interest Payment Date, or to transfer or exchange such 2019A Bond after the mailing of notice calling such 2019A Bond for redemption has been made as provided in the Indenture or during the period of 15 days next preceding the giving of notice of redemption of 2019A Bonds of the same Maturity Date.

No service charge shall be made for any transfer or exchange of 2019A Bonds, but the City or the Trustee may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any transfer or exchange of such 2019A Bonds, except that no such payment may be required in the case of the issuance of a 2019A Bond or 2019A Bonds for the unredeemed portion of a 2019A Bond surrendered for redemption.

2019A Bonds delivered upon any registration of transfer or exchange will be valid general obligations of the City, evidencing the same debt as the 2019A Bonds surrendered, will be secured by the Indenture and will be entitled to all of the security and benefits of the Indenture and of the Bond Ordinance to the same extent as such 2019A Bond surrendered.

## **Registered Owner Treated as Absolute Owner**

The City, the Trustee and any Paying Agent may treat the Registered Owner of any 2019A Bond as the absolute owner thereof for all purposes, whether or not such 2019A Bond shall be overdue, and shall

not be bound by any notice to the contrary. All payments of or on account of the principal of and interest on any such 2019A Bond as provided in the Indenture shall be made only to or upon the written order of the Registered Owner thereof or such Registered Owner's legal representative, but such registration may be changed as provided in the Indenture. All such payments shall be valid and effectual to satisfy and discharge the liability upon such 2019A Bond to the extent of the sum or sums so paid.

## **SECURITY FOR THE 2019A BONDS**

### **General Obligation of the City**

The 2019A Bonds are direct and general obligations of the City and all taxable property in the City is subject to the levy of *ad valorem* property taxes to pay the 2019A Bonds and the interest thereon without limitation as to rate or amount. The 2019A Bonds are payable, as to principal and interest, from any moneys, revenues, receipts, income, assets or funds of the City legally available for such purpose including, but not limited to, the proceeds of a direct annual tax levied by the City in the Bond Ordinance (the "*Bond Property Tax Levy*") upon all taxable property located in the City in an amount not less than the principal of and interest on the 2019A Bonds. The Bond Ordinance also authorizes the City to use the proceeds of the Bond Property Tax Levy for costs of certain ongoing financing services related to the 2019A Bonds (the "*Ongoing Financing Services*"). In the Indenture, the City covenants that, until all of the 2019A Bonds have first been fully paid or fully defeased in accordance with the Indenture, the Bond Property Tax Levy shall not be used for any purpose other than the payment of (i) principal of, interest on and Redemption Price, if any, on the 2019A Bonds (or for the purchase by the City of 2019A Bonds which are then cancelled), and (ii) Ongoing Financing Services; provided, however, that the Bond Property Tax Levy is subject to abatement as provided in the Bond Ordinance. The Bond Property Tax Levy will be on file with the County Clerks of Cook and DuPage Counties, Illinois (the "*County Clerks*") at the time of issuance of the 2019A Bonds. See "FINANCIAL DISCUSSION AND ANALYSIS—Property Taxes" and APPENDIX D—"PROPERTY TAXES."

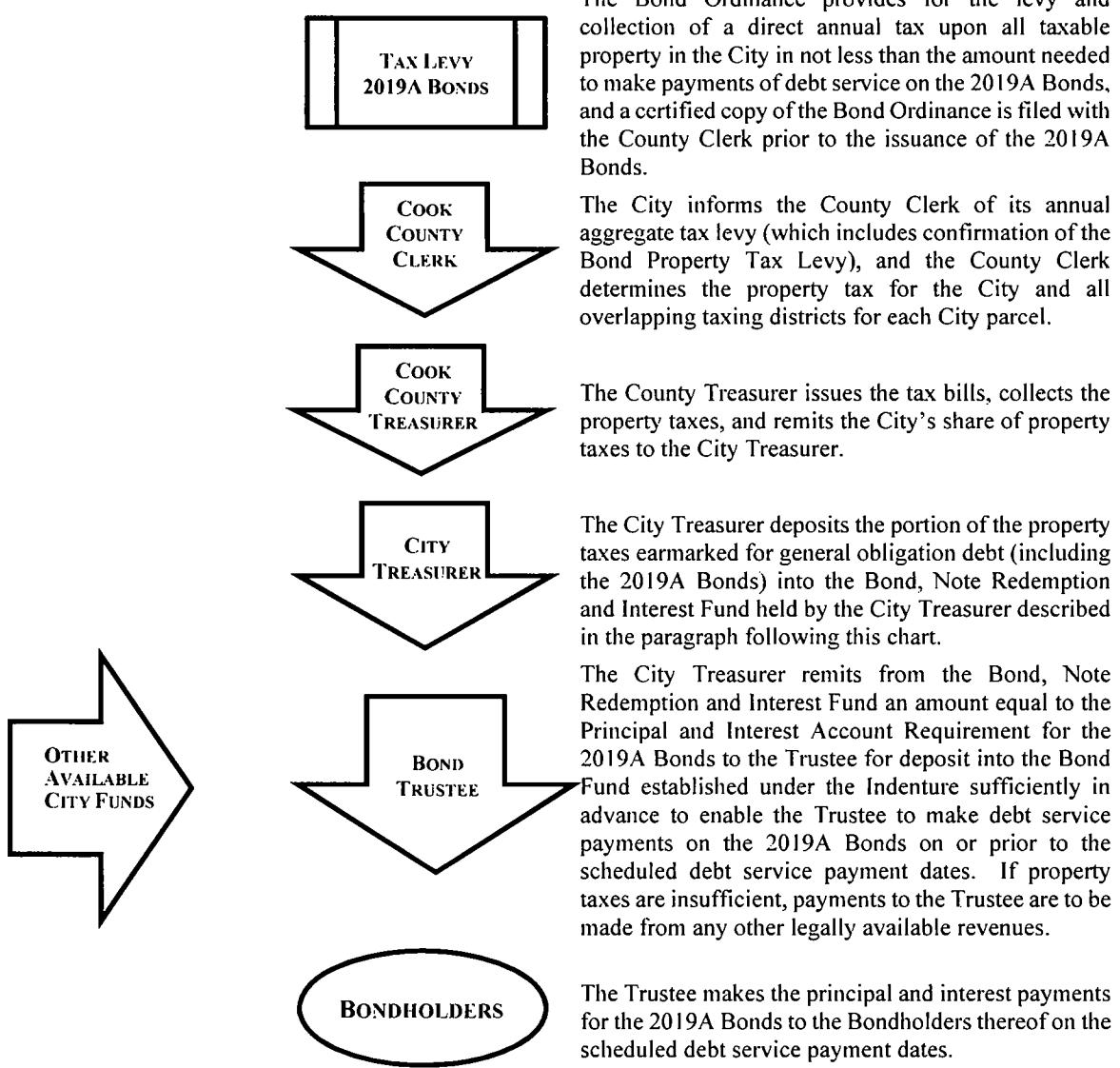
The City has pledged its full faith and credit to the payment of the 2019A Bonds. Under the Bond Ordinance, the City is obligated to appropriate amounts sufficient to pay principal of and interest on the 2019A Bonds authorized by the Bond Ordinance for the years such amounts are due, and the City covenanted in the Bond Ordinance to take timely action as required by law to carry out such obligation; however, if for any such year the City fails to do so, the Bond Ordinance constitutes a continuing appropriation of such amounts without any further action by the City.

If the revenues raised by the Bond Property Tax Levy are not available in time to make any payments of principal of or interest on the 2019A Bonds when due, then the appropriate fiscal officers of the City are directed in the Bond Ordinance to make such payments from any other moneys, revenues, receipts, income, assets or funds of the City that are legally available for that purpose in advance of the collection of the Bond Property Tax Levy, and when the proceeds thereof are received, such other funds shall be replenished.

### **Property Tax Collection Process for the 2019A Bonds**

The City's annual aggregate property tax levy is used primarily to pay debt service on the City's general obligation debt and to fund City contributions to the City's pension plans. See "FINANCIAL DISCUSSION AND ANALYSIS—Property Taxes." The Bond Property Tax Levy is included in the calculation of the City's annual aggregate property tax levy.

Set forth below is a general schematic of the process by which the Bond Property Tax Levy in Cook County (being the County in which approximately 99.99 percent of the taxable property in the City is located) is levied, billed, collected, and remitted to the City and, ultimately, to the Trustee.



As shown above, when property taxes are remitted by the Cook County Treasurer to the City, the property taxes for debt service are deposited and held in the Bond, Note Redemption and Interest Fund maintained by the City Treasurer. The Bond, Note Redemption and Interest Fund is used for the payment of debt service on all of the City's general obligation bonds, including the 2019A Bonds, for which the City has levied property taxes, and is one of a number of governmental funds used by the City to account for its governmental activities.

## **Lien and Security Interest Status**

2019A Bondholders do not have a statutory lien on remittances from the Bond Property Tax Levy or any other funds on deposit in the Bond, Note Redemption and Interest Fund. The Bond, Note Redemption and Interest Fund is held by the City Treasurer. Until remittances from the Bond Property Tax Levy are deposited with the Trustee as required by the Indenture, any claim for payment made by 2019A Bondholders against such funds, or any other funds in the Bond, Note Redemption and Interest Fund, will be subject to any competing claims which may exist against such funds. Once remittances from the Bond Property Tax Levy are deposited with the Trustee as required by the Indenture, such funds are subject to the 2019A Bondholders' security interest and may be used by the Trustee solely for the purposes authorized by the Indenture, including payment of principal of and interest on the 2019A Bonds. See "INVESTMENT CONSIDERATIONS—Bankruptcy" and "—Uncertain Enforcement of Remedies."

There is no guarantee that the flow of revenues from the Bond Property Tax Levy will always be maintained as described above. The City Council could alter the Bond Property Tax Levy, or the City could use remittances from the Bond Property Tax Levy or other funds held in the Bond, Note Redemption and Interest Fund for other uses besides debt service on the 2019A Bonds as authorized by the Bond Ordinance. The Illinois General Assembly could alter the procedure by which property taxes are extended and collected. However, because the 2019A Bonds are a general obligation of the City to which it has pledged its full faith and credit, if revenues from the Bond Property Tax Levy were insufficient to pay debt service on the 2019A Bonds, the City would still be obligated to find other sources of funds to remit to the Trustee for the payment of principal of and interest on the 2019A Bonds when due.

For additional information on real property assessment, tax levies and collections, see APPENDIX D—"PROPERTY TAXES."

## **PLAN OF FINANCING**

The proceeds of the 2019A Bonds will be used to (i) pay a portion of the costs of the 2019A Projects; (ii) retire all currently outstanding commercial paper notes of the City; (iii) fund certain capitalized interest on the 2019A Bonds; and (iv) pay costs of issuance of the 2019A Bonds. For additional information, see "SOURCES AND USES OF FUNDS" and "GENERAL OBLIGATION DEBT—Short-Term Borrowing Program," below.

### **Financing of the 2019A Projects**

The Bond Ordinance authorizes the City to use the 2019A Bond proceeds to finance the following purposes (collectively, the "*Authorized Uses*"): (i) 2018 and 2019 aldermanic menu program, design and support; (ii) public right-of-way infrastructure improvements in City neighborhoods, including street, alley and viaduct construction and improvements, bridge and sidewalk improvements and replacement, and curb and gutter repairs and replacement and transportation improvements, including street resurfacing, freight tunnel rehabilitation, traffic signal modernization, new traffic signal installation, intersection safety improvements and transit facility improvements; (iii) infrastructure improvements to enhance the development of economic activity, including industrial street construction and improvements, streetscaping, median landscaping, demolition of hazardous, vacant or dilapidated buildings that pose a threat to public safety and welfare, shoreline reconstruction, riverbank stabilization, residential and commercial infrastructure redevelopment and noise mitigation projects; (iv) the acquisition of personal property, including, but not limited to, computer hardware and software, vehicles or other capital items useful or necessary for City purposes; (v) constructing, equipping, altering and repairing various municipal facilities including fire stations, police stations, libraries, parks, schools, senior and health centers and other municipal facilities including the duly authorized acquisition of improved and unimproved real property

within the City for municipal purposes, and the improvement, demolition and/or remediation of any such property but excluding those municipal facilities described in items (vi) through (xiii) below; (vi) financing of costs of construction and equipping of a new, state-of-the-art Public Safety Training Academy to be located at 4301 West Chicago Avenue in the City's West Garfield Park neighborhood, as part of the City's continued efforts to provide the best tools, technology and training for its first responders; (vii) financing of costs of the Chicago Smart Lighting Program, including the replacement of outdated light fixtures, pole replacement and wiring repairs and creating a modern lighting management system to streamline maintenance and repairs and reduce electric costs; (viii) financing of costs of interior improvements at the Copernicus Senior Center, located at 3160 North Milwaukee Avenue, including the replacement and repair of mechanical equipment and envelope work; (ix) financing of costs of renovations to Humboldt Park Library, located at 1605 North Troy Street, including the roof replacement, the replacement and repair of equipment and additional interior improvements; (x) financing of costs of renovations to West Belmont Library, located at 3104 North Narragansett Avenue, including interior improvements, the replacement and repair of mechanical equipment and envelope work; (xi) financing of costs of renovations to Legler Library at 115 South Pulaski Road in the City's West Garfield Park neighborhood to establish a West Side regional library; (xii) financing of costs of design and construction of a new Engine Company 115, including associated environmental remediation, site preparation, new building construction and site development, including utilities as required, in the City's West Pullman neighborhood; (xiii) financing of costs of renovations to the 3rd District Police Station, serving Woodlawn and Greater Grand Crossing communities, including the replacement and repair of mechanical equipment and interior and exterior improvements; (xiv) Refunding Purposes; and (xv) costs of issuance, including underwriters' discount, and capitalized interest.

The Bond Ordinance and the Indenture provide that the City will not transfer or reallocate sales proceeds of the 2019A Bonds in any manner that deviates from certain limitations and allocations of the not to exceed aggregate principal amounts pertaining to each purpose for which the 2019A Bonds may be issued. See APPENDIX A—"SUMMARY OF THE INDENTURE."

The total aggregate principal amount of the 2019A Bonds may not exceed \$850,000,000 plus an amount equal to the amount of any net original issue discount used in the marketing of such 2019A Bonds (not to exceed 15 percent of the principal amount of the 2019A Bonds). The 2019A Bonds were authorized under the Bond Ordinance for the purposes described above in an aggregate principal amount not exceeding the amount specified above, or such lesser amounts as may be determined by the City's Chief Financial Officer or the City Comptroller (each such officer is referred to as an "*Authorized Officer*"). Projects described in categories (i) through (xiii) above, are collectively referred to as the "2019A Projects". See "Retiring of Commercial Paper Notes."

Investment income derived from 2019A Bond proceeds may be (i) expended for the same purposes for which 2019A Bond proceeds may be expended, (ii) used for the payment or prepayment of City debt obligations, (iii) deposited in the Corporate Fund of the City or (iv) rebated to the United States of America as provided in the Bond Ordinance, if needed to preserve the exemption on federal income taxation of the 2019A Bonds under the Internal Revenue Code of 1986, as amended (the "*Code*"), all as determined by an Authorized Officer or the City's Budget Director. See APPENDIX A—"SUMMARY OF THE INDENTURE."

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## **Retiring of Commercial Paper Notes**

A portion of the proceeds of the 2019A Bonds are expected to be used to retire all currently outstanding commercial paper notes of the City (the “*Retired Commercial Paper Notes*”) within 90 days of the date of delivery of the 2019A Bonds. See “**SOURCES AND USES OF FUNDS**” and “**GENERAL OBLIGATION DEBT—Short-Term Borrowing Program**.”

## **SOURCES AND USES OF FUNDS**

The following tables set forth the sources and uses of funds from the sale of the 2019A Bonds as described under “**PLAN OF FINANCING**.”

### **SOURCES OF FUNDS:**

Principal Amount of the 2019A Bonds	\$721,980,000.00
Original Issue Premium	55,023,924.10
<b>Total Sources of Funds</b>	<b><u>\$777,003,924.10</u></b>

### **USES OF FUNDS:**

Costs of 2019A Projects	\$592,781,893.00
Capitalized Interest	27,312,036.88
Retired Commercial Paper Notes	150,230,000.00
Costs of Issuance (including the Underwriters’ Discount)	6,679,994.22
<b>Total Uses of Funds</b>	<b><u>\$777,003,924.10</u></b>

## **FINANCIAL DISCUSSION AND ANALYSIS**

### **Annual Budget**

#### *Budget Process*

Each year, the City prepares an annual budget that accounts for revenue from taxes and other sources and sets forth a plan for how the City intends to utilize those resources over the course of the following year. In accordance with the Illinois Municipal Code, the City produces a balanced budget, meaning that its appropriated expenditures do not exceed the amount of resources it estimates will be available for that year.

The budget process begins each summer, when City departments inform the Office of Budget and Management (“*OBM*”) of their personnel and non-personnel needs for the upcoming year. OBM then prepares a preliminary budget based on the requests submitted by the departments and the resources OBM expects will be available to fund those needs.

Throughout the remainder of the summer, OBM continues the process of reviewing each department’s operating and programmatic needs and developing detailed departmental budgets. OBM also estimates Citywide expenses, pension contributions, employee health care and debt service. In addition, OBM prepares estimates on the amount of revenue that the City expects to collect in the following year.

In the fall, the Mayor’s Office and OBM work with departments to develop one final budget for the entire City government. OBM then compiles and balances the Mayor’s proposed budget, which is

typically introduced to the City Council on or before October 15 of each year. The City Council holds committee and public hearings on the Mayor's proposed budget and may propose amendments to it. Once the proposed budget, as amended, is adopted by the City Council, and approved by the Mayor, it becomes the Annual Appropriation Ordinance. The Annual Appropriation Ordinance is implemented on January 1 of the following year and represents the City's operating budget for that year.

#### *Budget Documents*

The documents that are prepared as part of the City's budget process are set forth below. *Such documents are not prepared for investors in securities issued by the City or as a basis for making investment decisions with respect to any bonds, notes, or other debt obligations of the City, including the 2019A Bonds. Prospective purchasers of the 2019A Bonds are cautioned not to rely on any of the information in the budget documents in connection with the offering of the 2019A Bonds.*

#### **Annual Budget Documents**

<b>Document</b>	<b>Purpose</b>
<b>Annual Financial Analysis</b>	Provides a review of the City's revenues and expenditures for the past 10 years, a forecast of the City's finances for the next three years and analysis of the City's reserves, pension contributions, debt obligations and capital improvement program.
<b>Budget Overview</b>	Provides a summary of the proposed budget and detailed information on the City's anticipated revenues, expenditures, and personnel.
<b>Budget Recommendations</b>	Constitutes the Mayor's proposed budget to the City Council in accordance with State law.
<b>Consolidated Plan &amp; Action Plan</b>	The five-year plan setting forth priorities for the City's housing and non-housing community needs based on housing and community development assessments.
<b>Annual Appropriation Ordinance</b>	The City's line-item budget as passed by the City Council.
<b>Capital Improvement Program</b>	A comprehensive list of capital improvements scheduled to occur in the City over the next five years.

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## *Budget Calendar*

The general budget calendar of the City is presented in the following table.

### **Annual Budget Calendar**

<b>Month</b>	<b>Action</b>
June	Departments submit preliminary revenue and expense estimates to OBM.
August/September	OBM receives detailed budget requests from City departments and holds a series of meetings with each department regarding the department's needs for the coming year. OBM works with the Mayor's Office to match expenses with available resources and balance the next year's budget.
October	In October, the Mayor submits a proposed budget to the City Council, and the City Council conducts hearings on the budget, including at least one public hearing, to gather comments on the proposed budget.
November/December	Additions or changes to the proposed budget are considered. The City Council must approve a balanced budget by December 31, at which point the Budget Recommendations become the Annual Appropriation Ordinance. The Final Action Plan and Final Consolidated Plan are submitted annually to the U.S. Department of Housing and Urban Development for funding consideration.
January	The City's Annual Appropriation Ordinance goes into effect.
Throughout The Year	Throughout the year, OBM manages the resources allocated through the Annual Appropriation Ordinance. OBM regularly reviews revenues, expenditures, and any trends or events that may affect City finances. On an ongoing basis, City departments provide information about the performance of City programs to ensure that City resources are used in a manner that maximizes taxpayer value and provides the highest quality services.

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## City Fund Structure

The City organizes its activities by funds, each of which is accounted for separately. Each fund has a specific set of revenue sources, which are utilized to support a specific set of City services and functions. Descriptions of the City's eight major governmental funds and its special revenue and proprietary funds are set forth below. See APPENDIX C—“CITY OF CHICAGO BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017.”

### City Funds

Fund	Purpose
<b>General Fund</b>	The General Fund is the City's general operating fund and supports essential City services and activities, such as police and fire protection, trash collection, and public health programs. The General Fund also supports a portion of the City's share of pension contributions for its employees. General Fund revenues come primarily from a variety of local and intergovernmental taxes, fees, and fines. See “—General Fund” below.
<b>Federal, State and Local Grants Fund</b>	Grant funding, largely from the State and federal governments, makes up a significant and recurring source of revenue for the City and is utilized to provide a range of City services and certain capital improvements.
<b>Special Taxing Areas Fund</b>	The Special Taxing Areas Fund accounts for expenditures for special area operations and maintenance and for redevelopment project costs as provided by tax levies on special areas, including tax increment financing districts.
<b>Service Concession &amp; Reserve Fund</b>	Established in connection with the long-term lease/concession of City assets to create reserves for unexpected contingencies, emergencies, or revenue shortfalls. These reserves are not included in the City's annual operating budget. See “Fund Stabilization – Asset Lease and Concession Reserves” below.
<b>Bond, Note Redemption and Interest Fund</b>	Accounts for the expenditures for principal and interest as provided by property tax, utility tax, sales tax, transportation tax, and investment income.
<b>Community Development and Improvement Projects Fund</b>	The Community Development and Improvement Projects Fund accounts for proceeds of debt used to acquire property, finance construction, and finance authorized expenditures and supporting services for various activities. See “—Capital Improvements” below.
<b>STSC Debt Service Fund</b>	The STSC Debt Service Fund accounts for the expenditures for principal and interest as provided by sales tax revenues.
<b>Pension Fund</b>	The Pension Fund accounts for the City's contribution to the City's four Employees' Annuity and Benefit Funds as provided by the tax levy and other sources of revenue, including the allocable share from special revenue and proprietary funds.
<b>Special Revenue Funds</b>	The City's special revenue funds (the “ <i>Special Revenue Funds</i> ”) are used to account for revenue from specific sources that by law are designated to finance particular functions, such as road repair, snow removal, the library system, emergency management and special events and tourism promotion.
<b>Proprietary Funds</b>	The City's proprietary funds (the “ <i>Enterprise Funds</i> ”) include the water fund, the sewer fund, the garbage collection fund, and a separate fund for each of the City's major airports. These funds are self-supporting, in that each fund derives its revenue from charges and associated user fees.

The revenue sources of the Federal, State and Local Grants Fund, the Community Development and Improvement Projects Fund and the Enterprise Funds are restricted as to use by law and those of the Special Revenue Funds are largely dedicated to specific services and functions. The revenues from these funds are not otherwise available to pay for general Citywide expenses, including debt service on the City's general obligation bonds or notes (including the 2019A Bonds) and the City's pension costs exceeding amounts properly allocable to the funds.

### **General Fund**

The City has historically presented information on the City's Corporate Fund in connection with its general obligation bond issues. The Corporate Fund comprises approximately 99.0 percent of the City's General Fund, which is the City's primary operating fund and accounts for all of the City's sources and uses of general operating revenue. The General Fund, and not the Corporate Fund, is included in the City's basic financial statements. The City is presenting information in this Official Statement about the General Fund in order to facilitate the reader's review of the City's basic financial statements. See APPENDIX C—“CITY OF CHICAGO BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017.”

The General Fund does not account for the portion of the City's pension obligations that are paid from the City's property tax levy or the Enterprise Funds, nor does it account for the principal and interest payments on the City's long-term general obligation bonds that are paid from the property tax levy. For information regarding the use of the City's property taxes for the payment of pension costs and general obligation bond debt service, see “—Property Taxes—*Use of City Property Tax Levy*,” below.

### *Selected Financial Information*

The following table sets forth revenues and other financing sources (collectively, “*resources*”) and expenditures and other financing uses for the General Fund on a historical basis for the years 2013 to 2017. The financial information is based on the modified accrual basis of accounting for the General Fund as reported in the City's audited basic financial statements for the years 2013 to 2017, respectively. This table should be read in conjunction with the financial information set forth in APPENDIX C—“CITY OF CHICAGO BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017.”

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**General Fund<sup>(1)</sup>**  
**For Fiscal Years Ended 2013 – 2017**  
**(*\$* in thousands)**

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Revenues:</b>					
Utility Tax .....	\$ 456,869	\$ 473,496	\$ 437,780	\$ 434,409	\$ 438,979
Sales Tax .....	583,681	620,299	665,793	674,515	500,360
State Income Tax .....	308,899	278,031	336,959	413,673	388,236
Other Taxes <sup>(2)</sup> .....	749,742	803,961	935,658	1,080,423	1,109,348
Federal/State Grants .....	1,871	2,335	1,845	1,869	2,514
Other Revenues <sup>(3)</sup> .....	<u>929,429</u>	<u>998,028</u>	<u>1,088,600</u>	<u>1,077,723</u>	<u>1,120,022</u>
<b>Total Revenues</b> .....	<b><u>3,030,491</u></b>	<b><u>3,176,150</u></b>	<b><u>3,466,635</u></b>	<b><u>3,682,612</u></b>	<b><u>3,559,459</u></b>
<b>Expenditures:</b>					
<b>Current:</b>					
Public Safety .....	1,953,572	2,020,072	2,061,540	2,195,201	2,228,705
General Government .....	885,268	929,918	1,064,470	993,682	929,471
Other <sup>(4)</sup> .....	267,852	270,899	298,817	263,503	277,643
Debt Service <sup>(5)</sup> .....	<u>2,382</u>	<u>10,369</u>	<u>8,275</u>	<u>20,822</u>	<u>19,039</u>
<b>Total Expenditures</b> .....	<b><u>3,109,074</u></b>	<b><u>3,231,258</u></b>	<b><u>3,433,102</u></b>	<b><u>3,473,208</u></b>	<b><u>3,454,858</u></b>
<b>Revenues Under Expenditures</b> .....	<b><u>(78,583)</u></b>	<b><u>(55,108)</u></b>	<b><u>33,533</u></b>	<b><u>209,404</u></b>	<b><u>104,601</u></b>
<b>Other Financing Sources (Uses):</b>					
Proceeds of Debt, Net of Original Discount/Including Premium .....					
-	-	19,300	-	-	-
Transfers In .....	21,018	39,700	34,551	14,998	180,227
Transfers Out .....	<u>(10,583)</u>	<u>(10,081)</u>	<u>(12,760)</u>	<u>(169,955)</u>	<u>(268,263)</u>
<b>Total Other Financing     Sources (Uses)</b> .....	<b><u>10,435</u></b>	<b><u>29,619</u></b>	<b><u>41,091</u></b>	<b><u>(154,957)</u></b>	<b><u>(88,036)</u></b>
<b>Revenues and Other Financing</b>					
Sources Over (Under) Expenditures and Other Financing Uses .....					
(68,148)	(25,489)	74,624	54,447	16,565	-
Fund Balance - Beginning of Year .....	231,302	167,057	141,278	215,232	269,582
Change in Inventory .....	<u>3,903</u>	<u>(290)</u>	<u>(670)</u>	<u>(97)</u>	<u>2,214</u>
<b>Fund Balance - End of Year</b> .....	<b><u>\$ 167,057</u></b>	<b><u>\$ 141,278</u></b>	<b><u>\$ 215,232</u></b>	<b><u>\$ 269,582</u></b>	<b><u>\$ 288,361</u></b>

Source: City of Chicago Comprehensive Annual Financial Report (“*City CAFR*”), Exhibit 4 for the respective years. The City CAFR is available upon request from the Department of Finance.

<sup>(1)</sup> The General Fund is the chief operating fund of the City. It is comprised of the Corporate Fund as well as other non-major operating funds where the fund balance is not restricted or committed as defined by the Governmental Accounting Standards Board (“*GASB*”).

<sup>(2)</sup> Includes Transaction, Transportation, Recreation, and Business Taxes, as well as the City’s share of the State Auto Rental Tax.

<sup>(3)</sup> Includes Internal Service, Licenses and Permits, Fines, Investment Income, Charges for Services, and Miscellaneous Revenues.

<sup>(4)</sup> Includes Health, Streets and Sanitation, Transportation, Cultural and Recreational, and Other Current Expenditures.

<sup>(5)</sup> Represents debt service on general obligation bonds that are not payable from a levy of property taxes. See “GENERAL OBLIGATION DEBT—Long-Term General Obligation Bonds.”

### *General Fund Revenue*

The General Fund's revenue sources consist of utility taxes, sales taxes, state income taxes, other taxes, federal and state grants and other revenues. With the exception of federal and state grants, which are less than 1 percent of overall General Fund revenues, the various sources of General Fund revenues are described below.

**Utility Taxes.** Utility taxes consist of taxes on the purchase of telecommunications services, electricity, natural gas, and cable television. The following table sets forth the sources of utility tax revenue for the years 2013 through 2017:

**Utility Tax Revenue 2013 – 2017**  
(\$ in thousands)

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Gas .....	\$ 122,139	\$ 153,274	\$ 119,705	\$ 111,087	\$ 124,681
Electric .....	98,557	96,353	95,215	98,694	95,389
Commonwealth Edison .....	90,602	90,202	87,578	91,436	88,311
Telecommunication .....	119,348	106,129	105,514	103,577	101,892
Fiber Optics .....	23	—	—	—	—
Cable Television .....	26,200	27,538	29,768	29,615	28,706
<b>Total Utility Tax .....</b>	<b>\$ 456,869</b>	<b>\$ 473,496</b>	<b>\$ 437,780</b>	<b>\$ 434,409</b>	<b>\$ 438,979</b>

Source: City CAFR, Schedule A-1 for the respective years.

These combined taxes have constituted 15.1 percent to 11.8 percent of total General Fund resources between 2013 and 2017. In 2013, utility taxes were \$456.9 million, declining to \$439.0 million in 2017. The reasons for fluctuations within the major categories of utility taxes are discussed below. Fiber optics and cable television are excluded from the discussion because the amounts are immaterial.

**Gas Tax.** The City imposes two natural gas-related taxes. The natural gas occupation tax is an 8.0 percent tax imposed on gross receipts for gas and delivery charges. The natural gas use tax is imposed at a rate of 6.3 cents per therm on entities not subject to the natural gas occupation tax. Natural gas tax collections are highly dependent upon weather conditions and price. Colder weather increases consumption and associated tax revenues, as natural gas is used to heat homes and buildings. Because the natural gas occupation tax is a percentage of gross revenues as opposed to a per-unit rate, these revenues are more directly impacted by price than electricity taxes, which are imposed entirely on a per-unit basis. Natural gas-related tax revenues in 2013, were \$122.1 million, accounting for 4.0 percent of total General Fund resources. In 2017, natural gas-related tax revenues were \$124.7 million, accounting for 3.5 percent of total General Fund resources.

**Electric and Commonwealth Edison Taxes.** The City's electricity taxes (shown in the table above under "Electric" and "Commonwealth Edison") are charged based on the number of kilowatt hours of electricity used. Revenues from electricity taxes are dependent upon consumption and also weather conditions, particularly summer temperatures due to the electricity needed to cool homes and buildings. Electricity rates, conservation efforts, and technological changes that contribute to energy efficiency also affect the amount of electricity used and thus revenue from these taxes. Electricity tax revenues have been 5.5 percent, on average, of total General Fund resources from 2013 to 2017, averaging \$186.5 million each year, and have held relatively constant.

**Telecommunications Tax.** Revenue from telecommunications taxes, which are levied by the City on charges for telephone services in the City, has declined over the past decade, reflecting trends in the industry and consumer preferences. In 2013, telecommunications tax revenue was \$119.3 million and made up 3.9 percent of General Fund resources. By 2017, telecommunications tax revenue had dropped to \$101.9 million, accounting for 2.9 percent of total General Fund resources. The overall decline in revenues was due in part to the continuing reduction in the use of landlines as more customers rely solely on wireless services, and also a decline in the number of wireless accounts as use of online communication services has increased. In addition, federal law exempts most wireless data services, such as mobile broadband, from taxation. Consequently, growth in the market for such wireless services has not resulted in increased telecommunications tax revenues for the City.

***Sales Taxes.*** In December 2017, the City entered into an agreement (the “*Agreement*”) with a special purpose corporation known as the Sales Tax Securitization Corporation (the “*Corporation*”) pursuant to which the City sold to the Corporation the City’s rights to receive sales tax revenues collected by the State (“*State-Collected Sales Tax Revenues*”) and in return the City received the proceeds of bonds issued by the Corporation and secured by such State-Collected Sales Tax Revenues (the “*Sales Tax Securitization Transaction*”). The Corporation uses the State-Collected Sales Tax Revenues to pay its operating expenses and pay debt service on the Corporation’s bonds. Thereafter, any remaining State-Collected Sales Tax Revenues (the “*Residual Sales Tax Revenues*”) are transferred to the City and are recorded in the City’s Corporate Fund as “Transfers In” rather than recorded as “Revenues” as they were previously. For a discussion of the Residual Sales Tax Revenues, see “– Other Financing Sources and Transfers In.” Certain sales taxes imposed by the City and collected by the City were not sold to the Corporation and continue to be recorded in the City’s Corporate Fund as revenues. These City-collected sales taxes consist of the use tax on non-titled personal property authorized by the Home Rule Municipal Use Tax Act of the State and the use tax on titled personal property on sales outside the six-county area authorized by the Home Rule Municipal Use Tax Act of the State. In 2017, General Fund revenue from sales taxes was \$500.4 million, or 14.1 percent of total General Fund resources. This revenue included the City-collected sales taxes and State-collected sales taxes received by the City prior to the effective date of the implementation of the transfer of the State-Collected Sales Tax Revenues to the Corporation under the Agreement.

***State Income Taxes.*** State income tax revenues consist of the City’s share of the state income taxes, including personal property replacement taxes. The following table sets forth sources of state income tax revenue received by the General Fund for the years 2013 through 2017:

<b>State Income Taxes 2013 – 2017</b> <b>(\$ in thousands)</b>					
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Income Taxes .....	\$ 275,979	\$ 250,279	\$ 286,473	\$ 253,968	\$ 239,894
Personal Property Replacement Taxes	<u>32,920</u>	<u>27,752</u>	<u>50,486</u>	<u>159,705</u>	<u>148,342</u>
<b>Total State Income Tax .....</b>	<b><u>\$ 308,899</u></b>	<b><u>\$ 278,031</u></b>	<b><u>\$ 336,959</u></b>	<b><u>\$ 413,673</u></b>	<b><u>\$ 388,236</u></b>

Source: City CAFR, Schedule A-1 for the respective years.

***Income Tax.*** Income tax revenues are impacted by a combination of factors, including employment rates, population, federal rules, and the timing of state distributions. The City’s share of State income tax revenues can vary with changes in the State’s personal and corporate income tax rates and/or changes to the percentage of total Income Tax receipts paid into the Local Government Distributive Fund (the “*LGDF*”). The LGDF is the fund from which all municipalities in Illinois are paid their share of State Income Tax revenue.

In 2011, the State increased the personal income tax rate from 3.0 percent to 5.0 percent and the corporate income tax rate from 4.8 percent to 7.0 percent. However, municipalities did not receive a share of this increase because the State, concurrently with increasing tax rates, reduced the percentage of total income tax receipts that flow into the LGDF. Distributions to the LGDF were decreased from 10 percent of both personal and corporate income tax revenue to 6.0 percent of personal income tax receipts and 6.86 percent of corporate income tax receipts.

In 2015, the State's income tax rate increase ended, and the personal income tax rate decreased to 3.75 percent and the corporate income tax rate decreased to 5.25 percent. As part of the sunset provision, distributions to the LGDF increased to 8.0 percent for personal income tax and to 9.14 percent for corporate income tax receipts, instead of the earlier 10 percent share. The sunset of the higher tax rates and changes to LGDF distributions did not happen concurrently. As a result, some 2014 income tax payments (at higher tax rates) received in 2015 were distributed to the LGDF based on a higher distribution rate and subsequently paid to municipalities. The timing of these changes increased income tax distributions to the City in the first two quarters of 2015.

Since then, individual income tax receipts declined due in part to shifts in the stock market, fewer capital gains, and lower corporate income tax receipts. Despite employment and wage gains in 2016 and 2017, income tax revenue declined relative to the early 2010s, dropping to \$239.9 million in 2017, or 6.7 percent of General Fund revenues.

Beginning in July 2017, the personal income tax rate increased to 4.95 percent and the corporate income tax rate increased to 7.0 percent. The State adjusted the distribution to the LGDF by decreasing the percentage of income tax revenue distributed to the LGDF to 6.06 percent for individual income tax and 6.85 percent to corporate income tax. The State reduced the amount deposited into the LGDF by another 10.0 percent for State fiscal year 2018. The 10.0 percent decrease to LGDF is to account for a change in how income tax disbursements will be paid to municipalities. The State began depositing income tax revenue directly into the LGDF instead of the revenue first passing through the State's general revenue fund with a subsequent transfer to the LGDF.

*Personal Property Replacement Tax.* The personal property replacement tax ("PPRT") derives its revenues primarily from an additional State income tax levied by the State on corporations, partnerships, trusts and S corporations. Currently, corporations pay a 2.5 percent tax on income, while partnerships, trusts and S corporations pay a 1.5 percent tax on income. The PPRT also derives some of its revenues from various taxes imposed on utilities at various rates. The tax is collected by the State and is paid to local governments in order to replace revenues that were lost when the State eliminated the authority of local governments to collect personal property taxes on business entities.

The City historically utilized its PPRT revenue in part to support the General Fund and in part to pay for the City's share of pension contributions. In 2015, the City changed the way it accounts for the non-property tax portion of its pension contributions. Historically, the City's pension contributions not paid from property taxes had been paid from PPRT revenues, which were recorded directly into the respective pension fund and did not flow through the Corporate Fund. Effective in 2016, the total receipt of PPRT revenue is deposited into the Corporate Fund, and a portion of the City's share of pension contributions is paid out of the Corporate Fund to the pension funds. See "PENSION BENEFITS PROVIDED BY THE CITY—Determination of City's Contributions." This change has the effect of increasing the Corporate Fund revenues by the amount of the PPRT revenues deposited into the Corporate Fund and increasing the Corporate Fund expenditures by a like amount.

In 2016, the Illinois Department of Revenue ("IDOR") reported a misclassification of pass-through withholding payments resulting in an overpayment of PPRT and an underpayment of income tax. This error resulted in overpayments to local taxing districts such as the City, Board of Education of the City of

Chicago (“CBOE”), and Chicago Park District (the “*Park District*”), among others, of \$168 million. A final review in 2017 showed the actual amount was \$166.831 million. When IDOR reported the error in early 2016, the original plan was to reconcile the previous returns in early 2017. Once the reconciliation was done, a repayment schedule was to be determined and the overpayments recouped from future distributions. However, the State’s fiscal year 2016 and 2017 budgets appropriated monies to community college districts out of the PPRT Fund in lieu of recouping the overpayment of PPRT monies. In late 2017 IDOR provided notification to local taxing districts that it will not seek to recoup any of the overpaid amounts from future distributions of PPRT.

PPRT revenue was \$148.3 million in 2017, \$11.4 million lower than 2016 revenue of \$159.7 million, and accounts for 4.2 percent of total 2017 General Fund resources at year-end.

**Other Taxes.** Other tax revenues consist of various taxes imposed by the City, such as transportation taxes, transaction taxes, recreation taxes, business taxes as well as the City’s share of the State auto rental tax. The following table sets forth sources of other tax revenue for the years 2013 through 2017.

<b>Other Taxes 2013 – 2017</b> (\$ in thousands)					
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Transportation Tax					
Parking.....	\$ 124,384	\$ 126,516	\$ 131,489	\$ 134,464	\$ 135,363
Vehicle Fuel.....	49,089	48,161	49,332	53,042	54,230
Ground Transportation.....	9,070	10,399	17,056	59,594	85,406
Transaction Tax					
Real Property .....	141,907	157,194	191,148	197,080	161,737
Personal Property Lease .....	140,227	152,576	192,504	259,939	265,724
Motor Vehicle Lessor .....	6,249	6,431	6,656	6,588	6,757
Recreation Tax					
Amusement.....	96,739	112,895	145,675	163,563	172,617
Automatic Amusement .....	631	584	544	499	443
Liquor .....	32,048	32,113	33,651	33,137	32,631
Boat Mooring.....	1,275	1,309	1,386	1,332	1,303
Cigarette .....	16,268	24,022	22,832	23,131	21,254
Off Track Betting.....	604	547	512	592	554
Soft Drink .....	21,564	22,210	22,910	24,354	24,338
Business Tax					
Hotel .....	89,851	100,407	109,784	113,500	131,609
Employers Expense .....	11,261	—	—	—	—
Foreign Fire Insurance .....	4,601	4,422	5,983	5,385	5,603
Shopping Bag Tax .....	—	—	—	—	5,642
State Auto Rental Tax .....	3,974	4,175	4,196	4,223	4,137
Total Other Taxes.....	<u>\$ 749,742</u>	<u>\$ 803,961</u>	<u>\$ 935,658</u>	<u>\$ 1,080,423</u>	<u>\$ 1,109,348</u>

Source: City CAFR, Schedule A-1 for the respective years.

With the exception of State auto rental taxes, which are immaterial, the various sources of other taxes are described below.

**Transportation Taxes.** Transportation tax revenues include taxes on vehicle fuel, garage parking and hired ground transportation. On average, these combined taxes have been 6.4 percent of total General Fund resources between 2013 and 2017.

Parking taxes which are imposed on parking garage operators, have consistently made up the largest portion of this category of revenues. Rate adjustments that took effect in 2012 and 2015 contributed to greater revenue growth. In 2013, the City changed this tax from a tiered flat-rate structure to a percentage-based tax to comply with changes in State law. This change reduced the effective tax rate for economy parking while increasing the effective rate for premium garages and valet services. The City further increased parking garage taxes by 2.0 percent in 2015. The current parking garage tax rate is 22.0 percent on total charges for daily parking during the work week, weekly, and monthly parking and 20.0 percent on total charges for daily parking on the weekends.

The vehicle fuel tax is a 5 cent per gallon tax on the sale of vehicle fuel to a retailer doing business in the City, or who purchases fuel for use in the City. In 2013 through 2017, the vehicle fuel tax generated an average of \$50.8 million, accounting for an average of 1.5 percent of total General Fund resources.

In recent years the City has included a number of revisions to the ground transportation tax. In 2015 a \$5.00 per trip surcharge on all transportation network provider (“TNP”) vehicles for airport, Navy Pier, and McCormick Place pick-up and drop-off went into effect. Before November 2015, TNP companies were not authorized to pick up at Chicago airports, though they were authorized to pick up at Navy Pier and McCormick Place with no surcharge. There was no surcharge associated with drop-offs at any of these locations. The \$5.00 per trip surcharge went into effect in November 2015. In 2017, the City implemented an additional fee on ground transportation providers the revenues from which are designated to fund transportation capital infrastructure. As a result of expanded service areas and increases in usage and rates, ground transportation revenues have greatly increased from \$9.1 million in 2013 to \$85.4 million in 2017.

*Transaction Taxes.* Transaction taxes include taxes on the transfer of real estate, the lease or rental of personal property, and the short-term lease of motor vehicles within the City. Combined transaction taxes have constituted an average of 11.2 percent of total General Fund resources between 2013 and 2017. Fluctuations in these revenue sources track closely with the economy and the real estate market.

In the years leading up to the recession, real property transfer tax collections reached record levels. While commercial real estate activity started to increase in 2010 and continued to improve in 2011, the residential real estate market was slower to recover and did not show sustained growth until 2012. By 2013, home sales increased by 19 percent and median home prices increased by 10 percent from 2012, bringing overall real property transfer tax revenues to \$141.9 million. During 2014, median home prices increased by 11 percent over 2013 while home sales decreased by 7 percent due largely to inventory shortages. Due to the increase in median home prices, 2014 revenues increased to \$157.2 million. The recovering housing market, in combination with continued strong commercial real estate activity, drove real property transfer tax revenues up to \$191.1 million in 2015 and \$197.1 million in 2016. In 2017, real property transfer tax revenues were \$161.7 million, 4.5 percent of total General Fund revenues.

As with other transaction and consumer-driven tax revenues, collections of personal property lease transaction tax suffered due to the recession’s impact on personal and business consumption, but in recent years revenues started increasing with consumer confidence and continued economic recovery. Lease tax revenues reached \$192.5 million in 2015 following an increase in the rate from 8.0 percent to 9.0 percent. Lease tax revenues were \$265.7 million, 7.5 percent of General Fund revenues, in 2017.

Historically, the City had assessed a tax on companies for leasing software and computers that perform various business functions. Over time, companies have moved to accessing certain services through cloud applications and technology. To reflect these changing behaviors, in 2016 the City restructured the tax covering leased software and computers. Specifically, the City reduced the rate on non-possessory leases of certain cloud products to 5.25 percent effective January 1, 2016. This reduction applies to instances where the customer is using such products to work with its own data. The City maintained the 9.0 percent tax rate for traditional database services used for financial and legal research. As part of this

change, the City exempted small companies from paying or collecting the lease tax for up to five years after start-up.

*Recreation Taxes.* Recreation taxes include taxes on amusement activities and devices, liquor, the mooring of boats, cigarettes, off-track betting and non-alcoholic beverages. Recreation taxes accounted for approximately 7.1 percent of General Fund revenues in 2017.

Amusement taxes apply to most large sporting events, theater and musical performances in the City. Amusement tax revenues vary significantly from year-to-year due to a variety of factors, including tourism and the cost of attending live performances and sporting events. The current amusement tax rate of 5.0 percent is applied to charges to view live theatrical, live musical, or other live cultural performances that take place in a venue with a capacity of more than 750 people; there is no amusement tax for live theatrical, live musical or other live cultural performances in venues with a capacity of 750 people or fewer. For all other types of amusement activities, the tax rate is 9.0 percent. Amusement tax revenue is impacted by any post-season play of Chicago-area sports teams; the popularity of certain shows and theater performances opening in Chicago; economic factors; rate changes; and phase-outs of certain special exemptions. The phase-out of the partial tax exemption cable television companies received was eliminated in 2014, and 2015 was the first year that special seating areas, such as skyboxes, were taxed at the full rate. Since 2013, revenues collected from the amusement tax have grown by 78.4 percent to \$172.6 million in 2017, when they accounted for 4.8 percent of total General Fund revenues.

Cigarette tax revenues have declined consistent with an overall decline in smoking as well as a decrease in cigarette purchases in Chicago as the tax rate increased in recent years. In 2016, the City started taxing liquid nicotine or “e-cigarettes.” The tax has two parts: a \$0.55 per milliliter of e-liquid and a \$0.80 per container of e-liquid. A container includes single-use e-cigarettes, replacement cartridges, and bottles of e-liquid. Cigarette tax revenues were \$21.3 million, 0.6 percent of Corporate Fund revenues, in 2017. Similar to cigarette tax revenue, liquor tax revenues are also impacted by changes in usage, but unlike the cigarette tax, revenues are not as impacted by the price sensitivity of purchasers after rate increases. Revenue from taxes on the purchase of non-alcoholic beverages includes the tax on bottled water and has remained relatively unchanged over the last decade. Liquor tax revenues reached \$32.6 million, 0.9 percent of General Fund revenues, in 2017.

*Business Taxes.* The City’s business tax revenues currently consist of revenue from taxes on hotel accommodations, foreign fire insurance tax, and the checkout bag tax. Business taxes accounted for an average of 3.5 percent of total General Fund revenues between 2013 and 2017. Foreign fire insurance and checkout bag taxes are excluded from the more detailed discussion of business taxes below because the amounts received therefrom are immaterial.

The City’s hotel tax receipts have historically benefited from growth in tourism and business travel, as well as changes to the tax rate and the implementation of a surcharge on vacation rentals and shared housing units. However, the recession significantly decreased hotel tax revenue as revenue per available room (“RevPAR”) – a key metric that accounts for both occupancy and room price – dropped precipitously to \$109 in 2009 from \$144 in 2008. Since 2012, the City has made a number of adjustments to the hotel tax rate and its application to new industries to significantly growing tax revenue. In February 2015, the City began requiring website booking facilitators, also called home sharing facilitators, to collect the hotel accommodations tax on transactions facilitated by their websites. Additionally, starting in July 2016, the City implemented a 4.0 percent surcharge on rental of licensed vacation rentals and home sharing units. Despite a dip in RevPAR from \$158 in 2015 to \$156 in 2016, the first decline since the recession, hotel accommodation tax revenue reached \$131.6 million, 3.7 percent of Corporate Fund revenues, in 2017. This is due to the resolution of a decade-long litigation related to payment of the City’s hotel tax by internet hotel booking websites. In May 2017, the City received a net settlement payment of over \$12 million.

**Other Revenues.** Other revenues consist of internal service, licenses and permits, fines, investment income, charges for services, municipal utilities, leases, rentals and sales, and miscellaneous revenues. The following table sets forth the sources of other revenues for the years 2013 through 2017.

**Other Revenues 2013 – 2017**

**(\$ in thousands)**

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Internal Service .....	\$ 306,523	\$ 305,716	\$ 345,426	\$ 342,606	\$ 347,738
Licenses and Permits .....	123,633	119,940	126,727	130,399	133,500
Fines .....	313,506	338,329	366,309	318,388	344,925
Investment Income .....	1,436	1,573	911	8,251	6,978
Charges for Services.....	119,857	134,593	119,598	185,196	182,148
Municipal Utilities.....	6,429	7,257	6,511	7,476	7,654
Leases, Rentals and Sales.....	19,008	24,127	25,489	26,111	25,885
Miscellaneous.....	39,037	66,493	97,629	59,296	71,194
Total Other Revenues.....	<u>\$ 929,429</u>	<u>\$ 998,028</u>	<u>\$1,088,600</u>	<u>\$1,077,723</u>	<u>\$ 1,120,022</u>

Source: City CAFR, Schedule A-1 for the respective years.

With the exception of investment income and municipal utilities, which are immaterial sources, the various categories of other revenues, including major revenue types within the categories, are described below.

**Internal Service.** Internal service revenues are transfers to the General Fund for services provided to other City funds and departments, such as police, fire, and sanitation services provided to the City's Enterprise Funds. Such transfers averaged 9.7 percent of General Fund resources from 2013 through 2017 and have ranged from \$306.5 million in 2013 to \$347.7 million in 2017.

**Licenses and Permits.** License and permit-related revenue is generated through fees for business licenses, building permits, and various other licenses and permits. License and permit activity often reflects economic health, with more construction commencing and businesses starting up when the economy is strong. As the real estate market has rebounded, license and permit activity and related revenues began to recover in 2012. Licenses and permits revenue in 2017 was \$133.5 million, or 3.8 percent of total General Fund resources.

**Fines.** Fines consist of fines, forfeitures, and penalties, including parking tickets, red-light and speed camera tickets, and fines for items such as building code violations. These revenues have increased from \$313.5 million in 2013 to \$344.9 million in 2017. These revenues accounted for 9.7 percent of total 2017 General Fund resources. This increase in revenues is partly a result of the increased use of technology, including the implementation of on-line bill payment systems and additional parking enforcement field technology. Increases in fine and penalty rates and improved debt collection have also impacted overall fine, forfeiture, and penalty revenues.

**Charges for Services.** Revenues from charges for services are generated by charging for activities such as inspections, public information requests and other services for private benefit. In 2013, these activities generated \$119.9 million, increasing to \$185.2 million in 2016 due to the implementation of a fee for garbage collection. In 2017, revenues from charges for services were 182.1 million.

**Leases, Rentals and Sales.** Revenues generated by the lease or sale of City-owned land, impounded vehicles, and other personal property account for a small percentage of overall General Fund revenue. In recent years, the City has implemented an online auction system for the sale of unneeded surplus materials and equipment. These revenues vary from year to year based on inventory of City property to be leased or

sold, and the market for such property, and have ranged from \$19.0 million to \$26.1 million over the last five years. In 2017, lease and sale income was \$25.9 million, in line with historic averages.

**Miscellaneous.** Miscellaneous revenues include infrequent or one-time sources of revenues, such as insurance recoveries, settlements, and cash received from fund closeouts, as well as other revenues that do not fall into one of the revenue categories mentioned above, such as municipal marketing fees and tax increment financing (“TIF”) surpluses. These activities generated \$39.0 million in 2013 and \$71.2 million in 2017.

#### *General Fund Expenditures*

Total General Fund expenditures, including other financing uses, have ranged from \$3.1 billion in 2013 to \$3.5 billion in 2017. Generally, the relative proportion of total General Fund spending devoted to different activities and expense types has remained fairly consistent from year to year.

General Fund expenditures consist of current operating expenditures and debt service. Debt service expenditures in the General Fund relate to debt service payments with respect to an issuance by the City in 1997 of certain building acquisition certificates and a general obligation note issued by the City in connection with the acquisition by the City of the former Michael Reese Hospital campus (the “*MRL Note*.”) Neither the building acquisition certificates nor the MRL Note are paid from property taxes and are not material. General Fund current expenditures are described below.

***Public Safety.*** Each year, the largest portion of General Fund expenditures is dedicated to public safety functions, and includes departments such as Police, Fire, and the Office of Emergency Management and Communications. This also includes the activities of (i) the Department of Buildings, which ensures the safety of residential and commercial buildings in the City by enforcing design, construction, and maintenance standards and promoting conservation and rehabilitation through permitting and inspection processes, and (ii) the Department of Business Affairs and Consumer Protection, such as business licensing and support and consumer protection activities, including the regulation of the local taxicab industry. Public safety has remained a primary driver of expenditures, growing as a percentage of General Fund expenditures, from 62.8 percent in 2013 to 64.5 percent in 2017.

***General Government.*** General government expenditures support functions necessary to provide essential City services, including accounting and finance, contract management, human resources, legal advice, administrative services, vehicle and facilities maintenance, community services, City development, technology and systems expertise. These expenditures have accounted for between 26.9 and 31.0 percent of General Fund expenditures from 2013 through 2017.

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**Other Current Expenditures.** The following table sets forth the other current expenditures of the General Fund by function for the years 2013 through 2017.

**Other Current Expenditures 2013 – 2017**  
(\$ in thousands)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Health .....	\$ 26,552	\$ 25,902	\$ . 26,001	\$ 29,430	\$ 30,083
Streets and Sanitation .....	186,992	195,390	199,644	195,310	197,491
Transportation .....	52,420	47,309	67,145	35,421	50,069
Cultural and Recreational .....	—	—	—	482	—
Other .....	<u>1,888</u>	<u>2,298</u>	<u>6,027</u>	<u>2,860</u>	<u>—</u>
<b>Total Other Current Expenditures .....</b>	<b><u>\$ 267,852</u></b>	<b><u>\$ 270,899</u></b>	<b><u>\$ 298,817</u></b>	<b><u>\$ 263,503</u></b>	<b><u>\$ 277,643</u></b>

Source: City CAFR, Exhibit 4 for the respective years.

With the exception of Cultural and Recreational and Other expenditures set forth in the table above, which are immaterial in amounts, the categories of Other Current Expenditures are described below.

**Health.** Health expenditures support the operations of the Department of Public Health, including providing health education to residents, access to care, guiding public health initiatives and monitoring and inspecting food establishments. Department of Public Health expenditures have accounted for, on average, 0.8 percent of General Fund expenditures from 2013 through 2017.

**Streets and Sanitation.** Streets and sanitation expenditures support the operations of the Department of Streets and Sanitation, including garbage and recycling collection, sweeping and plowing of streets, graffiti removal, cleaning of vacant lots, demolition of garages, towing of illegally parked vehicles, abatement of rodents and planting, trimming and removal of trees. Expenditures related to the Department of Streets and Sanitation have accounted for, on average, 5.8 percent of General Fund expenditures from 2013 through 2017.

**Transportation.** Transportation expenditures support the operations of the Department of Transportation and have averaged approximately 1.5 percent of annual General Fund expenditures between 2013 and 2017. These funds are used to build, repair, and maintain streets, sidewalks, and bridges and complete the planning and engineering behind the City's infrastructure. Much of the City's major infrastructure construction is funded through State and federal grants, general obligation bond financing, TIF revenues and other sources, and thus is not represented as a General Fund expenditure.

#### ***Other Financing Sources and Transfers In***

Other Financing Sources and Transfers In recorded in the General Fund for 2017 include Residual Sales Tax Revenues received from the Corporation under the Sales Tax Securitization Transaction and in the amount of \$150.8 million. See “— General Fund Revenue —Sales Taxes,” above. Other Financing Sources and Transfers In recorded in the General Fund for 2017 also include investment income on the City's Asset Lease and Concession Reserves. See “Fund Stabilization — Asset Lease and Concession Reserves,” below.

### *Budget Gaps*

Each year, the City projects revenues and expenses for the coming year as part of its preliminary budget process. The difference between revenues and expenditures anticipated by the City in its preliminary Corporate Fund budget estimates each year is commonly referred to as the “gap.” The budget gap is closed each year before the passage of the Annual Appropriation Ordinance, in which expenditures are balanced with forecasted available resources.

Set forth below are the preliminary budget gaps for fiscal years 2012 through 2019.

#### **PRELIMINARY BUDGET GAPS 2012 – 2019 (\$ in millions)**

Year	Amount
2012	\$635.7
2013	369.0
2014	338.7
2015	297.3
2016	232.6
2017	137.6
2018	114.2
2019	97.9

Source: City of Chicago, Office of Budget and Management.

The decreasing size of the gap from 2012 through 2019 is the result of the recovering economy’s impact on revenues, as well as the reductions made as part of the past eight budgets. Initiatives such as the introduction of managed competitions for City services, the transition to grid-based garbage collection, consolidation of information technology systems and software licenses, implementation of energy efficiency programs, sale of excess City-owned land, review and renegotiation of major contractual costs, and reforms that have reduced the City’s healthcare costs have all decreased the City’s structural deficit, bringing the City’s expenses more closely in line with revenues.

In addition to closing the \$97.9 million preliminary budget gap, the 2019 budget provides \$113.8 million in additional expenditures. Closing the preliminary budget gap, and providing for additional expenditures was achieved in the 2019 Annual Appropriation Ordinance through savings and revenue enhancements in the following general categories: cutting spending and reforming government (\$73.7 million), improved cost recovery and charges for services (\$26.5 million), improved fiscal management (\$73.5 million), and public safety investment fund proceeds (\$38.0 million).

Across all departments and City services, personnel-related expenditures (including salaries and wages and employee healthcare costs) make up the largest portion of the Corporate Fund budget. For the 2019 Corporate Fund budget, personnel-related expenditures comprised almost 80 percent of total budgeted Corporate Fund expenditures.

### **Fund Stabilization**

The City’s policy is to maintain sufficient unrestricted fund balances to mitigate current and future risks, emergencies, or unanticipated budget shortfalls. As part of its financial and budget practices, the City establishes and maintains three sources of the unrestricted budgetary fund balance, referred to collectively as Budget Stabilization Fund or fund balance: (i) Asset Lease and Concession Reserves, (ii) Operating

Liquidity Fund, and (iii) Unassigned Fund Balance. Current City policy states that the City will maintain an unrestricted budgetary fund balance equivalent to no less than two months of operating expenses.

#### *Asset Lease and Concession Reserves*

The City established long-term reserves of \$500 million and \$400 million, respectively, with proceeds of the upfront payments from the long-term lease or concession of the Chicago Skyway and the City's metered parking system ("Metered Parking System"). See "– Long-term Leases, Concessions of City Facilities," below.

The interest earned on the Skyway Lease reserves was intended to be used for City operating expenses and has been utilized as planned. The principal balance remains \$500 million and the earned interest has been transferred to the General Fund each year, with the dollar amount of the transfer reflecting variations in interest rates.

The reserves from the Metered Parking System were created to replace revenues that would have been generated from parking meters by transferring interest earnings on the reserves to the General Fund, with the principal remaining intact at \$400 million. However, starting in 2009, the City began utilizing these long-term reserves to subsidize the City's operating budget. In 2009, \$20 million was transferred to the General Fund, and in 2010, \$160 million was used for City operating expenses. The 2011 budget included a \$140 million transfer from the reserves for operating purposes. Utilizing these reserves reduced the principal balance substantially below the initial deposit and accordingly reduced the interest earnings generated by the reserves. The ordinance establishing the reserves directed that an annual transfer of \$20 million be made from the reserve fund into the General Fund to replace lost meter revenue. In order to maintain these reserves, the City amended the ordinance in 2012 to state that only interest generated from the reserves, and not principal, must be transferred for this purpose.

The chart below provides the year-end balance as recorded in the City CAFRs for the years ended December 31, 2008 through 2017.

**ASSET LEASE AND CONCESSION RESERVES 2008 – 2017**  
(\$ in millions)

<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
\$660.3	\$1,304.5	\$877.9	\$718.5	\$624.8	\$590.2	\$626.0	\$624.5	\$640.2	\$668.3

Source: City CAFRs.

#### *Operating Liquidity Fund*

In 2016, the City created the Operating Liquidity Fund for purposes of fiscal management. The Operating Liquidity Fund is expected to function as recurring short-term funding for City operations that are funded from a dedicated revenue source (e.g., Chicago Public Library property tax revenue), to mitigate against temporary revenue shortfalls caused by timing differences in the receipt of certain revenue. The Operating Liquidity Fund is not intended to provide one-time revenue to the General Fund budget or provide an indefinite line of credit. The City has set aside \$5 million in 2015, 2016 and 2017 for the Operating Liquidity Fund, which is reflected in the City CAFR in the assigned fund balance. The City budgeted further deposits of \$5 million in 2018 and \$10 million in 2019.

### *Unassigned Fund Balance*

Surplus resources identified throughout the annual financial audit process make up the unassigned fund balance. The City's unassigned fund balance was \$33.8 million in 2013, \$51.6 million in 2014, \$93.0 million in 2015, \$153.7 million in 2016, and \$155.5 million in 2017. The growth has been due in part to the improving economy, enhancements in revenue systems, including debt collection and investment strategies, and ongoing savings and efficiencies.

Current City policy states that the City will not appropriate more than 1 percent of the value of the annual corporate budget from the prior year's audited unassigned fund balance in the current year's budget.

### **Capital Improvements**

The City's Capital Improvement Program ("CIP") funds the physical improvement or replacement of City-owned infrastructure and facilities with long useful lives, such as roads, buildings and green spaces. The CIP is funded from general obligation bond proceeds, revenue bond proceeds (largely for water, sewer, and aviation improvements), State and federal funding, TIF, and private funding through public/private ventures. Capital improvements are projects with long useful lives that maintain, upgrade, or replace public infrastructure and public service providing facilities. Each year, the City updates the CIP, producing a spending "blueprint" based upon the most current revenue projections and project priorities. Continued investments in infrastructure and facilities are critical to support and enhance neighborhoods, stimulate the economy, and improve services. The City expects to fund projects through the use of general obligation bonds, revenue bonds, federal and State funding, and other available sources.

General obligation bonds have been utilized to support the types of projects described in the following table.

#### **CAPITAL IMPROVEMENT PROJECTS<sup>(1)</sup>**

<b>Project</b>	<b>Description</b>
Greening	Greenways, medians, trees, fountains, community gardens, neighborhood parks, wetlands, and other natural areas.
Facilities	Improvement and construction of City buildings and operating facilities, police and fire stations, health clinics, senior centers, and libraries.
Infrastructure	Construction and maintenance of streets, viaducts, alleys, lighting, ramps, sidewalks, bridge improvements, traffic signals, bike lanes, streetscapes, and shoreline work, as well as neighborhood improvements and the aldermanic menu program. The aldermanic menu program is an annual allotment of \$1.32 million per ward to be programmed from a menu of capital improvements in each ward. Historically, these funds have been used primarily for sidewalks, residential street resurfacing, street lighting, and curb and gutter replacements, with portions of these funds contributed to the Park District, CBOE, and the Chicago Transit Authority. Also included are costs related to the improvements selected by the aldermen, such as design and engineering, utility adjustments, and sidewalk ramps.

<sup>(1)</sup> General obligation bonds have also funded a limited number of other uses, which are discussed under "GENERAL OBLIGATION DEBT – Long-Term General Obligation Bonds."



## **City Workforce**

The City has decreased its workforce from 39,921 budgeted full-time equivalent positions in 2008 to 36,562 budgeted full-time equivalent positions in 2019, a decrease of approximately 9 percent. Approximately 90 percent of the City's workforce is represented by unions. The City is party to collective bargaining agreements with more than 40 different unions.

The collective bargaining agreements with each of these unions include regular salary increases, resulting in higher personnel costs each year. The collective bargaining agreements between the City and each of the Fraternal Order of Police, Lodge No. 7 ("FOP") and the Chicago Firefighters Union, Local 2 ("CFU"), respectively, which terms originally run from July 1, 2012 through June 30, 2017, have expired. The City is in negotiations with each union for a successor agreement to its expired collective bargaining agreement, each of which has remained in effect during such negotiations. The City may be required to make retroactive pay increase payments to City employees that are FOP and CFU members under such successor agreements that, in the aggregate, may be significant. The City has entered into new collective bargaining agreements with the Coalition of Union Public Employees and with the American Federation of State, County, and Municipal Employees, each for the period 2017 through 2022; each agreement provides for salary increases totaling 10.5 percent over the five-year term of the respective agreement.

## **Property Taxes**

The City levies *ad valorem* real property taxes pursuant to its authority as a home rule unit of local government under the State Constitution. Real property taxes represent the single largest revenue source for the City. As part of the City's budget process each year, the City determines the aggregate property tax levy that will be levied in the next fiscal year and collected in the following year.

### *EAV and Property Taxes*

The City's aggregate property tax levy is divided by the equalized assessed value ("EAV") of all property in the City to determine the tax rate that will be applied to an individual taxpayer's property. The tax rate is applied to the EAV of the taxpayer's property to determine the tax bill. Changes in EAV do not affect the amount of the City's property tax revenue because the City's property taxes are levied at a flat dollar amount. For information on real property assessment, tax levy and tax collection in Cook County, see APPENDIX D — "PROPERTY TAXES."

The following tables present statistical data regarding the City's property tax base, tax rates, tax levies and tax collections from 2008 forward.

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**ASSESSED, EQUALIZED ASSESSED AND ESTIMATED VALUE OF ALL TAXABLE PROPERTY 2008 – 2017**  
 (\$ in thousands)

Tax Levy Year <sup>(2)</sup>	Assessed Value <sup>(1)</sup>					State Equalization Factor <sup>(7)</sup>	Total Equalized Assessed Value <sup>(6)</sup>	Total Direct Tax Rate	Total Estimated Fair Cash Value <sup>(9)</sup>	Percentage of Total Assessed Value as a Fair Cash Value
	Class 2 <sup>(3)</sup>	Class 3 <sup>(4)</sup>	Class 5 <sup>(5)</sup>	Other <sup>(6)</sup>	Total					
2008	\$19,339,574	\$1,602,768	\$12,359,537	\$693,239	\$33,995,118	2.9786	\$80,977,543	1.030%	\$310,888,609	26.1%
2009	18,311,981	1,812,850	10,720,244	592,364	31,437,439	3.3701	84,685,258	0.986	280,288,730	30.2
2010	18,074,177	1,416,863	10,467,682	606,941	30,565,663	3.3000	82,087,170	1.020	231,986,397	35.4
2011	17,932,671	1,116,175	10,456,103	588,672	30,093,621	2.9706	75,122,914	1.110	222,856,064	33.7
2012	15,529,678	1,208,620	10,233,051	498,310	27,469,559	2.8056	65,250,387	1.279	206,915,723	31.5
2013	15,410,659	1,236,401	10,172,186	494,714	27,313,960	2.6621	62,363,876	1.344	236,695,475	26.3
2014	15,390,835	1,298,776	10,124,569	512,390	27,326,570	2.7253	64,908,057	1.327	255,639,792	25.3
2015	17,296,324	1,532,714	11,269,605	592,903	30,691,546	2.6685	70,963,289	1.672	278,027,604	25.5
2016	17,191,167	1,598,117	11,369,238	603,849	30,762,391	2.8032	74,016,506	1.752	293,121,793	25.3
2017 <sup>(10)</sup>	17,169,637	1,844,745	11,431,099	524,639	30,970,120	2.9627	76,765,303	1.769	—	—

<sup>(1)</sup> Source: Civic Federation for Levy Year 2009 and prior. Cook County Assessor's Office for Levy Year 2010-2017. Excludes the portion of the City in DuPage County.

<sup>(2)</sup> Taxes for each year become due and payable in the following year. For example, taxes for the 2017 tax levy became due and payable in 2016.

<sup>(3)</sup> Residential, six units and under.

<sup>(4)</sup> Residential, seven units and over and mixed use.

<sup>(5)</sup> Industrial/commercial.

<sup>(6)</sup> Vacant, not-for-profit and industrial/commercial incentive classes.

<sup>(7)</sup> Source: Illinois Department of Revenue.

<sup>(8)</sup> Source: Cook County Clerk's Office. Calculations are net of exemptions and exclude portions of the City in DuPage County. Calculations also include assessment of pollution control facilities and railroad property.

<sup>(9)</sup> Source: The Civic Federation. Excludes railroad property, pollution control facilities and portion of the City in DuPage County.

<sup>(10)</sup> Certain information for 2017 was not available from the Civic Federation at time of publication.

**PROPERTY TAXES FOR ALL CITY FUNDS, COLLECTIONS AND ESTIMATED ALLOWANCE  
FOR UNCOLLECTIBLE TAXES 2008 – 2017<sup>(1)</sup>**  
(\$ in thousands)

Tax Levy Year <sup>(2)</sup>	Collections within Fiscal Year		Total Collections as of December 31, 2017		Percent of Total Tax Collections to Tax Levy	Estimated Allowance for Uncollectible Taxes	Net Outstanding Taxes Receivable
	Total Tax Levy for Fiscal Year <sup>(3)(4)</sup>	Amount	Percentage of Levy	Collections in Subsequent Years	Amount		
2008	\$ 834,152	\$ 776,522	93.1	\$31,942	\$ 808,464	96.9	\$25,688
2009	834,109	700,579	84.0	99,463	800,042	95.9	34,067
2010	834,089	790,141	94.7	14,576	804,717	96.5	29,372
2011	833,948	800,582	96.0	3,443	804,025	96.4	29,923
2012	834,636	804,245	96.4	9,129	813,374	97.5	21,262
2013	838,254	807,985	96.4	11,876	819,861	97.8	18,393
2014	861,416	832,042	96.6	14,757	846,799	98.3	14,354
2015	1,186,625	1,156,428	97.5	18,446	1,174,874	99.0	11,516
2016	1,296,899	1,271,653	98.05	–	1,271,653	98.1	24,489
2017	1,358,882	–	N/A	–	–	N/A	54,319 <sup>(5)</sup>

<sup>(1)</sup> Source: Cook County Clerk's Office.

<sup>(2)</sup> Taxes for each year become due and payable in the following year. For example, taxes for the 2017 tax levy become due and payable in 2018.

<sup>(3)</sup> Does not include levy for Special Service Areas and Tax Increment Projects.

<sup>(4)</sup> Does not include the levy for the Schools Building and Improvement Fund, which is accounted for in an agency fund.

<sup>(5)</sup> Estimated Allowance for Uncollectible Taxes for the year 2017 is estimated at 4% of Total Tax Levy for that Fiscal Year.

*Use of City Property Tax Levy*

Revenue from the City's property tax levy has been utilized primarily to pay the City's debt service and employer pension contributions. A small amount of the levy is allocated to the library system.

The amounts and tax rates of the City's property tax levy for debt service and employer pension contribution by Retirement Fund are set forth in the following tables for the years indicated.

**PROPERTY TAX LEVIES 2013 – 2017<sup>(1)</sup>**  
**(\$ in thousands)**

	<b>2013</b>	<b>2014</b>	<b>Change (%)</b>	<b>2015</b>	<b>Change (%)</b>	<b>2016</b>	<b>Change (%)</b>	<b>2017</b>	<b>Change (%)</b>
Note Redemption and Interest <sup>(2)</sup> ...	\$ 74,231	\$ 97,061	30.76%	\$ 97,708	0.67%	\$ 80,359	-17.76%	\$ 80,420	0.08%
Bond Redemption and Interest.....	411,807	412,139	0.08%	411,730	-0.10%	430,584	4.58%	439,379	2.04%
PABF <sup>(3)</sup> .....	138,146	136,680	-1.06%	361,987	164.84%	455,355	25.79%	490,685	7.76%
MEABF <sup>(3)</sup> .....	122,066	123,239	0.96%	124,706	1.19%	124,706	0.00%	124,706	0.00%
FABF <sup>(3)</sup> .....	81,518	81,363	-0.19%	179,424	120.52%	194,825	8.58%	212,622	9.13%
LABF <sup>(3)</sup> .....	10,486	10,934	4.27%	11,070	1.24%	11,070	0.00%	11,070	0.00%
<b>Total.....</b>	<b>\$ 838,254</b>	<b>\$ 861,416</b>	<b>2.76%</b>	<b>\$1,186,625</b>	<b>37.75%</b>	<b>\$1,296,899</b>	<b>9.29%</b>	<b>\$1,358,882</b>	<b>4.78%</b>

Source: Cook County Clerk's Office.

<sup>(1)</sup> Does not include the levy for the School Building and Improvement Fund which is accounted for in an agency fund.

<sup>(2)</sup> Includes Corporate, Chicago Public Library Maintenance and Operations, Chicago Public Library Building and Sites, and City Relief Funds.

<sup>(3)</sup> For information regarding the City's unfunded pension obligations, see "PENSION BENEFITS PROVIDED BY THE CITY – Funded Status of the Retirement Funds."

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**PROPERTY TAX RATES PER \$100  
OF EQUALIZED ASSESSED VALUATION 2008 – 2017**

Tax Levy Year	Tax Extension <sup>(1)(2)</sup> (in thousands)	Bond, Note Redemption and Interest <sup>(3)</sup>	Policemen's Annuity and Benefit	Municipal Employees' Annuity and Benefit	Firemen's Annuity and Benefit	Laborers' and Retirement Board Employees' Annuity and Benefit	Total
2008	\$ 834,152	\$0.602842	\$0.172426	\$0.162182	\$0.080787	\$0.011763	\$1.030
2009	834,109	0.570806	0.167552	0.153704	0.078184	0.015754	0.986
2010	834,089	0.588774	0.170734	0.161435	0.078352	0.016705	1.016
2011	833,948	0.645918	0.191381	0.169036	0.088014	0.015651	1.110
2012	834,636	0.743170	0.220459	0.197892	0.100313	0.017166	1.279
2013	838,254	0.779280	0.221494	0.195713	0.130700	0.016813	1.343
2014	861,416	0.784415	0.210554	0.189848	0.125339	0.016844	1.327
2015	1,186,625	0.717817	0.510054	0.175716	0.252815	0.015598	1.672
2016	1,296,899	0.690240	0.615146	0.168467	0.263192	0.014955	1.752
2017	1,358,882	0.676071	0.639138	0.162434	0.276949	0.014419	1.769

Source: Cook County Clerk's Office.

<sup>(1)</sup> Does not include levy for Special Service Areas and net of collections for TIF Districts.

<sup>(2)</sup> Does not include the levy for the Schools Building and Improvement Fund, which is accounted for in an agency fund.

<sup>(3)</sup> Includes rates from the Chicago Public Library Bond, Note Redemption and Interest Fund.

As shown above, the aggregate property tax levies over the period 2008 through 2013 remained relatively constant. The increase in 2014 was primarily due to property tax surpluses from TIF District terminations and did not represent an increase in the total tax levy for that year. See “—TIF Districts,” below. The majority of the tax levy increase in 2015, 2016 and 2017 reflect the \$543 million four-year phase-in of higher property taxes to fund the City’s retirement systems. See “PENSION BENEFITS PROVIDED BY THE CITY – Determination of City’s Contributions.”

The City is one of several taxing districts reflected on a Chicago resident’s property tax bill. The amount of property taxes collected by Cook County is divided among these districts, with the City allocated approximately 24 percent of the typical bill. For information on property taxes levied on real property within the City by overlapping taxing districts, see “—Overlapping Taxing Districts” below.

#### *TIF Districts*

In addition to the revenues the City receives from its general property tax levy, the City derives property tax revenue from the City’s TIF redevelopment project areas (“TIF Districts”). TIF revenue must be utilized for specific types of expenses in specific districts and is not available for non-specified governmental uses. The City’s TIF program began in 1984 with the goal of promoting business, industrial, and residential development in areas of the City that struggled to attract or retain housing, jobs, or commercial activity. The program is governed by a State law that allows municipalities to capture property tax revenues derived from the EAV growth above the base EAV that existed before an area was designated as a TIF District for the term of the TIF District, and to use that money (the tax increment) for job training, public improvements and incentives to attract private investment to the area. In 2016, the TIF statute was amended to authorize the creation of TIF Districts specifically for public transit facilities. The City created its first transit TIF District in November 2016 to fund improvements to the Chicago Transit Authority Red and Purple Lines.

When a TIF District ends, or the City, under certain circumstances, declares a surplus in the TIF District, the City returns the surplus funds to the Cook County Treasurer for distribution to the overlapping taxing districts based upon each district's share of the aggregate tax rate under the applicable tax code. Such surplus declaration occurs typically during the City's annual budget process.

Additionally, beginning in mid-2015, the City froze spending on new projects other than critical infrastructure in seven downtown TIF Districts. The City plans to declare as surplus all revenue not needed for current and committed projects in those TIF Districts. In addition, once all obligations are paid, it is expected that those TIF Districts will be terminated.

Set forth in the following table is information about the amount of money returned to taxing districts from declared surplus or the expiration, repeal or termination of TIF Districts from 2009 through 2018.

<b>TIF SURPLUS 2009 – 2018</b> (\$ in millions)										
	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Declared.....	—	—	\$188.0	\$82.8	\$25.0	\$39.1	\$39.5	\$111.8	\$172.7	\$171.1
Expiration ..	\$15.4	—	15.1	13.7	8.4	25.4	44.3	—	—	—
Repeal .....	2.3	—	73.3	—	0.5	—	—	—	—	—
Termination	6.9	—	—	—	9.6	0.6	0.5	1.4	4.0	—
Total.....	<b>\$24.6</b>	<b>—</b>	<b>\$276.4</b>	<b>\$96.5</b>	<b>\$43.5</b>	<b>\$65.1</b>	<b>\$84.3</b>	<b>\$113.2</b>	<b>\$176.7</b>	<b>\$171.1</b>

Source: City of Chicago, Office of Budget and Management

The City receives approximately 24 percent of all surplus dollars distributed by the Cook County Treasurer to the overlapping taxing districts. The 2018 declared TIF surplus of \$171.1 million provides approximately \$41.0 million to the City.

Upon the expiration, repeal or termination of TIF Districts, the incremental EAV of the district becomes a part of the aggregate EAV that is available to all overlapping taxing districts. Taxing districts, including the City, have the ability to recover their portion of the revenue from the incremental EAV by adding it to their levy following a TIF District's dissolution. This practice yielded the City \$3.6 million from one TIF District in 2015, \$7.8 million from two TIF Districts in 2016 and \$11.5 million from one TIF District in 2017. The City will continue to receive TIF surplus on an annual basis as TIF Districts are repealed, terminated or expire.

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### *Overlapping Taxing Districts*

Various governmental entities operate as separate, independent units of government and have authority to issue bonds and levy taxes on real property within the City. These governmental entities, or overlapping taxing districts, are the CBOE, Cook County, Illinois (“*Cook County*”), the Metropolitan Water Reclamation District of Greater Chicago (“*MWRD*”), the Park District, Community College District Number 508, County of Cook and State of Illinois (“*City Colleges*”), and the Cook County Forest Preserve District (“*Forest Preserve*”).

Most of the overlapping taxing districts lack home rule status; accordingly, the amount by which they can increase their annual property tax levy is limited by tax cap legislation unless they obtain voter approval and/or State legislative authorization. The City can give no assurance as to whether, and to what extent, property taxes levied by overlapping taxing districts may increase in coming years.

The combined property tax rates of the City and overlapping taxing districts are set forth in the following table for the years 2008 to 2017.

**COMBINED PROPERTY TAX RATES OF THE CITY  
AND OTHER MAJOR GOVERNMENTAL  
UNITS PER \$100 OF EQUALIZED ASSESSED VALUATION 2008 – 2017**

Tax Levy Year	City	City of Chicago School Building & Improvement Fund	Chicago Board of Education	City Colleges of Chicago	Chicago Park District	Metropolitan Water Reclamation District	Forest Preserve District of Cook County	Cook County	Total
2008	\$1.030	\$0.117	\$2.472	\$0.156	\$0.323	\$0.252	\$0.051	\$0.415	\$4.816
2009	0.986	0.112	2.366	0.150	0.309	0.261	0.049	0.394	4.627
2010	1.016	0.116	2.581	0.151	0.319	0.274	0.051	0.423	4.931
2011	1.110	0.119	2.875	0.165	0.346	0.320	0.058	0.462	5.455
2012	1.279	0.146	3.422	0.190	0.395	0.370	0.063	0.531	6.396
2013	1.343	0.152	3.671	0.199	0.420	0.417	0.069	0.560	6.832
2014	1.327	0.146	3.660	0.193	0.415	0.430	0.069	0.568	6.808
2015	1.672	0.134	3.455	0.177	0.382	0.426	0.069	0.552	6.867
2016	1.752	0.128	3.726	0.169	0.368	0.406	0.063	0.533	7.145
2017	1.769	0.124	3.890	0.164	0.352	0.402	0.062	0.496	7.259

Source: Cook County Clerk’s Office.

The aggregate long-term general obligation debt of the City and the bonded debt of the overlapping taxing districts as of December 31 of the years 2008 through 2017 are set forth below.

**LONG-TERM GENERAL OBLIGATION DEBT OF THE CITY AND BONDED DEBT OF OVERLAPPING TAXING DISTRICTS**  
**AS OF DECEMBER 31 OF THE YEARS 2008 – 2017**  
(\$ in thousands, except Net Direct Debt Per Capita)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CBOE.....	\$ 4,623,026	\$ 5,295,249	\$ 5,596,922	\$ 5,907,450	\$ 6,365,573	\$ 6,207,790	\$ 6,038,973	\$ 6,152,448	\$ 6,778,084	\$ 8,179,138
Park District .....	814,290	814,290	944,565	924,170	874,710	865,665	844,460	840,460	863,580	821,000
City Colleges of Chicago .....	1,320,897	1,436,563	1,617,172	1,786,751	1,783,542	1,715,011	250,000	245,995	241,830	315,560
Chicago School Finance Authority	66,645	—	—	—	—	—	—	—	—	—
Forest Preserve.....	53,225	50,670	48,419	45,706	92,847	86,091	85,454	85,372	85,253	77,873
MWRD .....	651,276	942,299	951,165	1,213,007	1,267,749	1,213,933	1,224,149	1,370,699	1,594,027	1,418,606
Net Overlapping Long-term Debt.....	7,529,359	8,539,070	9,158,243	9,877,084	10,384,421	10,338,490	10,113,429	10,397,181	11,232,989	12,407,225
City of Chicago GO Bonds .....	6,126,295	6,866,270	7,328,452	7,628,222	7,939,682	7,670,298	8,339,626	9,041,892	8,943,914	9,609,625
Net Direct and Overlapping long-term debt .....	\$ 13,655,654	\$ 15,405,340	\$ 16,486,695	\$ 17,505,306	\$ 18,324,103	\$ 18,008,788	\$ 18,453,055	\$ 19,439,073	\$ 20,176,903	\$ 22,016,850
Net Direct Debt Per Capita <sup>(1)</sup> .....	\$ 4,715.32	\$ 5,319.49	\$ 6,116.16	\$ 6,494.03	\$ 6,797.79	\$ 6,680.81	\$ 6,845.63	\$ 7,211.41	\$ 7,485.13	\$ 8,167.71
Total Est Fair Cash Value <sup>(2)</sup> .....	\$310,888,609	\$280,288,730	\$231,986,397	\$222,856,064	\$206,915,723	\$236,695,475	\$255,639,792	\$278,027,604	\$293,121,793	\$293,121,793
Ratio of Debt to Fair Cash Value <sup>(3)</sup> .....	4.39%	5.50%	7.11%	7.85%	8.86%	7.61%	7.22%	6.99%	6.88%	7.51%

Source: Debt of overlapping taxing districts from the respective districts.

(1) Population source: U.S. Census Bureau. From 2008 through 2009, per capita is based on the 2000 population of 2,896,016. From 2010 through 2017, per capita is based on the 2010 population of 2,695,598.

(2) Source: The Civic Federation. Excludes railroad property, pollution control facilities and portion of City in DuPage County.

(3) Calculations for 2016 and 2017, are based on 2016 estimated fair cash value.

## Overlapping Taxing Districts' Pension Obligations

The overlapping taxing districts within the City maintain five pension funds for their respective employees that are supported by local government revenues. Statistical data for the four City pension funds and the five overlapping taxing districts' pension funds is set forth in the table below.

### CITY AND OVERLAPPING TAXING DISTRICTS PENSION FUNDS SUPPORTED BY LOCAL GOVERNMENT REVENUES<sup>(1)</sup>

Overlapping Taxing Districts	Unfunded Actuarial Accrued Liability <sup>(2)</sup> (\$ in millions)	Unfunded Liability Per Capita <sup>(3)</sup>	Funded Ratio
MWRD .....	\$ 996.1	\$ 190	60.1%
Cook County .....	6,486.6	1,237	61.6
Forest Preserve .....	120.5	23	63.6
CBOE <sup>(4)</sup> .....	11,028.8	4,051	49.5
Park District .....	663.0	244	36.2
Subtotal .....	<u>\$ 19,290.0</u>	<u>\$ 5,745</u>	
 <b>City Pension Funds</b> .....	 <b>\$ 27,467.7</b>	 <b>\$10,089</b>	 <b>26.8%</b>
 <b>TOTAL</b> .....	 <b>\$ 46,763.0</b>	 <b>\$15,834<sup>(5)</sup></b>	

Source: Most recent actuarial valuation of the pension fund of the overlapping taxing district. Table may not add due to rounding.

<sup>(1)</sup> Excludes City Colleges, the employees of which are members of the State Universities Retirement System which is funded by the State and the Chicago Transit Authority pension fund which is supported by local sales taxes, real estate transfer taxes, subsidies from the Regional Transportation Authority and fares.

<sup>(2)</sup> The Unfunded Actuarial Accrued Liability is calculated based on the fair value of assets.

<sup>(3)</sup> Per capita amounts are based on the U.S. Census Bureau's 2017 population estimate of the City (2,722,586) and of Cook County (5,238,541) as described in APPENDIX B – "ECONOMIC AND DEMOGRAPHIC INFORMATION – Population." The City's population was used to calculate the per capita numbers for the City and for the CBOE and the Park District, each of which has boundaries coterminous with the City. Cook County's population was used to calculate the per capita numbers for Cook County, the Forest Preserve, which has boundaries coterminous with Cook County, and MWRD which, though not coterminous with Cook County, has boundaries which overlap in excess of 98% with the boundaries of Cook County, measured by EAV.

<sup>(4)</sup> CBOE makes contributions to the Chicago Teachers' Pension Fund.

<sup>(5)</sup> Represents the average burden on a resident of the City as a result of the unfunded pension liabilities of the City and the overlapping taxing districts.

The information set forth in the preceding table may not incorporate the various reforms that have been adopted for certain of these pension funds and should not be relied upon for the financial condition of the pension funds currently. The information is presented only to provide an indication of the magnitude of the unfunded pension liabilities of the overlapping taxing districts when combined with the unfunded pension liabilities of the City. For additional detail on the liabilities of the four City pension funds, see "PENSION BENEFITS PROVIDED BY THE CITY – Funded Status of the Retirement Funds."

## Long-Term Leases, Concessions of City Facilities

The City is a party to long-term lease or concession agreements with respect to certain City-owned facilities, as described below.

In 2005, the City entered into a 99-year lease of the Chicago Skyway (the “*Skyway Lease*”), under which Skyway Concession Company, LLC, was granted the right to collect and retain toll revenue from the Skyway. In return, the City received an upfront payment of \$1.83 billion.

In 2006, the City entered into the Chicago Downtown Public Parking System Concession and Lease Agreement (the “*Parking Garages Lease Agreement*”) with Chicago Loop Parking, LLC (“CLP”), by which CLP was granted a 99-year concession to operate the public parking garages commonly referred to as Millennium Park, Grant Park North, Grant Park South and East Monroe (collectively the “*Parking Garages*”). Under the Parking Garages Lease Agreement, CLP was granted the right to operate and collect revenue from the Parking Garages in return for an upfront payment of \$563 million to the City. In May 2016, the concessionaire interest in the Parking Garages Lease Agreement was sold to Millennium Parking Garages LLC.

In 2008, the City entered into the Chicago Metered Parking System Concession Agreement (the “*Metered Parking Concession Agreement*”) with Chicago Parking Meters, LLC (“CPM”), by which CPM was granted a 75-year concession to operate the Metered Parking System, including the right to collect revenues derived from the metered parking spaces. In return, the City received an upfront payment of \$1.15 billion.

The City established long-term reserves with portions of the upfront payments from the Skyway Lease and the Metered Parking System. See “—Fund Stabilization –*Asset Lease and Reserves*” above.

Under each of the Skyway Lease, the Metered Parking Concession Agreement and the Parking Garages Lease, the lessee/concessionaire has the right to terminate the transaction and receive payment from the City for the fair market value of the respective City facilities in the event that the City, Cook County or the State were to take certain actions which materially adversely affected the value of the respective City facilities.

The Parking Garages Lease Agreement includes a provision by which certain events can require the City to compensate the lessee. One of those events is the granting of a license for the operation of a public garage that was not in existence as of the date of the Parking Garages Lease Agreement within a certain distance from the Parking Garages. In 2015, the City paid the lessee a judgment of approximately \$62 million as compensation for granting a public garage license for a new parking garage within the specified distance from the Parking Garages.

The Parking Meters Concession Agreement includes a provision by which the City can be required to compensate CPM if usage of the Metered Parking System by vehicles displaying disabled parking placards (which are exempt from paying for on-street metered parking) exceeds a certain threshold. Pursuant to this provision, the City paid CPM \$18.5 million for such usage by vehicles displaying a disabled parking placard during 2013. No such payment has been required from the City since 2015.

### **Illinois Sports Facilities Authority**

The Illinois Sports Facilities Authority (“ISFA”) is a State agency authorized to construct and operate sports facilities and provide financial assistance for governmental owners of sports facilities or their tenants. Beginning in 1980, the ISFA issued various series of bonds (and refunding bonds) for the development of the new Comiskey Park (now known as “*Guaranteed Rate Field*”) and a portion of the Chicago lakefront including Soldier Field. The ISFA bonds are payable from State and City annual subsidy payments of \$5 million each, with the City’s subsidy taken from the City’s share of the local government distributive fund, and a 2 percent hotel tax imposed by the ISFA (the “*ISFA Hotel Tax*”). The State advances to the ISFA certified annual operating expenses less the amount of the subsidies. The State

withholds collections from the ISFA Hotel Tax to repay advanced amounts. If the ISFA Hotel Tax is not sufficient to repay the State advance, the deficiency is automatically withdrawn from the City's share of the local government distributive fund. During 2011, the ISFA hotel tax was inadequate to fully repay the State advance, and the deficiency of \$185,009 was deducted from the City's share of the local government distributive fund. This is the only payment the City has made to date. Future City payments are dependent on hotel occupancy rates.

### **Sales Tax Securitization Corporation**

As described above in "FINANCIAL DISCUSSION AND ANALYSIS – General Fund – *General Fund Revenue – Sales Taxes*," in December 2017, the City sold to the Corporation the City's right to receive State-Collected Sales Tax Revenues in exchange for the proceeds of bonds issued by the Corporation as well as the Residual Sales Tax Revenues. Currently, the Corporation has outstanding bonds in an aggregate principal amount of \$2,641,865,000 (the "*Corporation Outstanding Bonds*"), the proceeds of which were used to refund all of the City's then outstanding sales tax revenue bonds (in an aggregate principal amount of \$502,432,392.35) as well as certain outstanding general obligation bonds of the City (in an aggregate principal amount of \$2,055,255,000). Future issues of debt by the Corporation may reduce the amount of Residual Sales Tax Revenues available to the City.

### **City Investment Policy**

The investment of City funds is governed by the Municipal Code. Pursuant to the Municipal Code, the City Treasurer has adopted a Statement of Investment Policy and Guidelines for the purpose of establishing written cash management and investment guidelines to be followed by the City Treasurer's office in the investment of City funds. See APPENDIX C—"CITY OF CHICAGO BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2017—Notes (1) and (4)."

Amounts in a variety of funds of the City, including the General Fund, are invested on a comingled basis, and are referred to as the City's "*consolidated cash*." Consolidated cash may be used for interfund borrowings among various funds of the City, including, but not limited to, the General Fund, and such use reduces the need for external borrowing by the City to meet the needs of its funds. The City has maintained its consolidated cash, including interfund borrowing, so as to meet the obligations of its funds, including the General Fund, in a timely manner.

Notwithstanding the City's investment policy, all funds held under the Indenture must be held in Permitted Investments. See APPENDIX A—"SUMMARY OF THE INDENTURE—Glossary of Terms—*Permitted Investments*."

## **PENSION BENEFITS PROVIDED BY THE CITY**

### **General**

Pursuant to the Illinois Pension Code, as revised from time to time (the "*Pension Code*"), the City contributes to four retirement funds (collectively, the "*Retirement Funds*"), which provide benefits upon retirement, death or disability to members of the Retirement Funds and their beneficiaries. The Retirement Funds are, in order from largest to smallest membership: (i) the Municipal Employees' Annuity and Benefit Fund of Chicago ("*MEABF*"); (ii) the Policemen's Annuity and Benefit Fund of Chicago ("*PABF*"); (iii) the Firemen's Annuity and Benefit Fund of Chicago ("*FABF*"); and (iv) the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago ("*LABF*"). The Retirement Funds' membership consists primarily of current and former employees of the City and their beneficiaries.

The Retirement Funds are established, administered and financed under the Pension Code, as separate bodies politic and corporate and for the benefit of the members of the Retirement Funds and their beneficiaries. The City's contributions to the Retirement Funds, and benefits for members of the Retirement Funds and their beneficiaries, are governed by the provisions of the Pension Code. See “*– Determination of City's Contributions*” below. This section describes, among other things, the current provisions of the Pension Code applicable to the City's funding of the Retirement Funds. No assurance can be made that the Pension Code will not be amended in the future.

Certain statements made in this section are based on projections, are forward-looking in nature and are developed using assumptions and information currently available. Such statements are subject to certain risks and uncertainties. The projections set forth in this section rely on information produced by the Retirement Funds' independent actuaries (except where specifically noted otherwise) and were not prepared with a view toward complying with the guidelines established by the American Institute of Certified Public Accountants with respect to prospective financial information. This information is not fact and should not be relied upon as being necessarily indicative of future results. Readers of this section are cautioned not to place undue reliance on the prospective financial information. Neither the City, the City's independent auditors, nor any other independent accountants have compiled, examined, or performed any procedures with respect to the prospective financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information or its achievability, and assume no responsibility for, and disclaim any association with, the prospective financial information.

On December 12, 2018, an ordinance (the “*2019 Fund Stabilization Bonds Ordinance*”) was introduced at the City Council by the Mayor. If adopted in the form as introduced, the 2019 Fund Stabilization Bonds Ordinance would authorize certain transactions (assuming adoption of a subsequent ordinance by the City Council) which would provide for additional contributions to the Retirement Funds (the “*Potential Pension Bond Transactions*”). See “*– Potential Pension Bond Transactions*” below. If the Potential Pension Bond Transactions are executed, the additional contributions generated thereby will, when considered independently of other factors, increase the Funded Ratios (as defined herein) of the Retirement Funds when compared to the current Funded Ratios of the Retirement Funds as described herein. No assurance can be given that the Potential Pension Bond Transactions will be executed or, if executed, that the Potential Pension Bond Transactions will be executed in the manner or in the amounts described in the 2019 Fund Stabilization Bonds Ordinance.

### **Source Information**

The information contained in this section relies in part on information produced by the Retirement Funds, their independent accountants and their independent actuaries (the “*Source Information*”). Neither the City nor the City's independent auditors have independently verified the Source Information and make no representations nor express any opinion as to the accuracy of the Source Information.

Furthermore, where the tables in this section present aggregate information regarding the Retirement Funds, such aggregate information results solely from the application of arithmetic to the data presented in the Source Information and may not conform to the requirements for the presentation of such information by GASB.

Certain of the audited financial statements or comprehensive annual financial reports of the Retirement Funds (such audited financial statements or comprehensive annual financial report of a Retirement Fund being referred to herein as the “*Retirement Fund Financial Statements*”), and certain of the actuarial valuations of the Retirement Funds (each, an “*Actuarial Valuation*” and together, the “*Actuarial Valuations*”), may be obtained by contacting the Retirement Funds. Certain of these reports may also be available on the Retirement Funds' websites ([www.meabf.org](http://www.meabf.org); [www.chipabf.org](http://www.chipabf.org);

[www.labfchicago.org](http://www.labfchicago.org); and [www.fabf.org](http://www.fabf.org)); provided, however, that the contents of these reports and of the Retirement Funds' websites are not incorporated herein by such reference.

The Retirement Funds typically release their Actuarial Valuations in the April or May following the close of their respective fiscal years on December 31. All of the Retirement Funds have released their Actuarial Valuations and Retirement Fund Financial Statements for the fiscal year ended December 31, 2017. No Retirement Fund has released its Actuarial Valuation or Retirement Fund Financial Statements for the fiscal year ended December 31, 2018.

### **Background Information Regarding the Retirement Funds**

#### *General*

Each of the Retirement Funds is a single-employer, defined-benefit public employee retirement system. "Single-employer" refers to the fact that there is a single plan sponsor, in this case, the City. "Defined-benefit" refers to the fact that the Retirement Funds pay a periodic benefit to employees upon retirement and survivors in a fixed amount determined at the time of retirement. The amount of the periodic benefit is generally determined on the basis of service credits and salary. Eligible employees receive the defined benefit on a periodic basis for life, along with certain benefits to spouses and children that survive the death of the employee.

To fund the benefits to be paid by a defined-benefit pension plan, both employees and employers make contributions to the plan. Generally, in a defined-benefit pension plan, employees contribute a fixed percentage of their annual salary and employers contribute the additional amounts required (which amounts may be determined pursuant to statute, as in the case of the City), when combined with the investment earnings on plan assets, to pay the benefits under the pension plan. See TABLE I—MEMBERSHIP, – "Determination of Employee Contributions" and – *Determination of City's Contributions*" below.

The benefits available under the Retirement Funds accrue throughout the time an employee is employed by the City. Although the benefits accrue during employment, certain age and service requirements must be achieved by an employee to generate a retirement or survivor's periodic defined benefit payment upon retirement or termination from the City. The Retirement Funds also provide certain disability benefits and retiree healthcare benefits to certain members. See "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS" below.

Section 5 of Article XIII of the State Constitution (the "Pension Clause") provides as follows: "Membership in any pension retirement system of the State, any unit of local government or school district, or any agency or instrumentality thereof, shall be an enforceable contractual relationship, the benefits of which shall not be diminished or impaired."

The members of the Retirement Funds are divided into separate tiers based on the date on which they became a member of a Retirement Fund. Employees who became members of the Retirement Funds prior to January 1, 2011, are referred to as "Tier One Members," while employees who became members after January 1, 2011 are referred to as "Tier Two Members." Tier Two Members receive less generous benefits than Tier One Members.

Public Act 100-023, which became effective on July 6, 2017 ("P.A. 100-23"), created an additional tier of members within MEABF and LABF ("Tier Three Members"). Tier Three Members consist of MEABF and LABF employees who became members on or after July 6, 2017 as well as certain Tier Two Members who elected (the "Tier Three Election") to be considered Tier Three Members. The Tier Three Election had to be made between October 1, 2017 and November 15, 2017. Tier Three Members are subject

to different provisions for the calculation of benefits under the Pension Code, including, but not limited to, a reduction in the age at which a member is eligible for a minimum formula annuity with 10 years of service, and separate contribution rates from those for Tier One Members and Tier Two Members.

P.A. 100-23 further provides that, following the adoption of an ordinance by the City Council deeming MEABF or LABF an “affected pension fund” under P.A. 100-23, Tier Three Members will have the option to opt-in to additional benefit and contribution changes from those currently applicable to Tier Three Members, as described in P.A. 100-23 (the “*Future Tier Election*”). As of the date hereof, the City Council has not adopted such an ordinance. The City provides no assurances as to whether such an ordinance providing for the Future Tier Election will be adopted in the future, nor can the City project the impact of the adoption of such ordinance on MEABF or LABF or the City’s contributions to such Retirement Funds.

References in this Section to “member” are references to the active, inactive and retired employees of the City and their beneficiaries, the active, inactive and retired employees of the Retirement Funds participating in the Retirement Funds and their beneficiaries, and with regard to MEABF, certain employees of the CBOE who are members of MEABF as described below, and their beneficiaries.

References in this Section to the term “contribution” or “payment” when used in reference to any year refers to the actual payment of moneys by the City to a Retirement Fund. References to the term “levy year” reflect the year in which property tax levies, such as the Pension Levy (as hereinafter defined), are filed with the Cook and DuPage County Clerks (the same being the counties in which the City is located). Such levies will be collected by the Counties, remitted to the City and contributed to the Retirement Funds in the calendar year following the levy year.

#### *The Retirement Funds*

*Municipal Employees’ Annuity and Benefit Fund of Chicago.* MEABF is established by and administered under Article 8 of the Pension Code. MEABF provides age and service retirement benefits, survivor benefits and disability benefits to all eligible members. MEABF is administered under the direction of a 5-member board of trustees (the “*MEABF Board*”), whose members are responsible for managing and administering MEABF for the benefit of its members. In addition to City and Retirement Fund employees, former employees and survivors, MEABF’s membership includes non-instructional employees of the CBOE (“*CBOE Employees*”). With respect to MEABF, the terms “employee” and “member” include the CBOE Employees. The CBOE Employees account for almost half of MEABF’s membership. The Mayor of the City, the City Clerk, the City Treasurer, and members of the City Council may participate in MEABF if such persons file, while in office, written application to the MEABF Board.

*Policemen’s Annuity and Benefit Fund of Chicago.* PABF is established by and administered under Article 5 of the Pension Code. PABF provides retirement and disability benefits to the police officers of the City, their surviving spouses and their children. PABF is administered by an 8-member board of trustees (the “*PABF Board*”). Members of the PABF Board are charged with administering the PABF under the Pension Code for the benefit of its members.

*Firemen’s Annuity and Benefit Fund of Chicago.* FABF is established by and administered under Article 6 of the Pension Code. FABF provides retirement and disability benefits to fire service employees and their survivors. FABF is governed by an 8-member board of trustees (the “*FABF Board*”). Members of the FABF Board are statutorily mandated to discharge their duties solely in the interest of FABF’s members.

*Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago.* LABF is established by and administered under Article 11 of the Pension Code. LABF provides retirement and disability benefits for employees of the City and the CBOE who are employed in a title recognized by the City as labor service and for the survivors of such employees. LABF is governed by an 8-member board of trustees (the "LABF Board" and, together with the MEABF Board, the PABF Board and the FABF Board, the "Retirement Fund Boards"). Members of the LABF Board are statutorily mandated to discharge their duties solely in the interest of LABF's members.

The membership of the Retirement Funds as of December 31, 2017, was as follows:

**TABLE 1 - MEMBERSHIP**

<b>Retirement Fund</b>	<b>Active Members</b>	<b>Inactive/ Entitled to Benefits</b>	<b>Retirees and Beneficiaries</b>	<b>Totals</b>
MEABF	30,922	17,549	25,383	73,854
PABF	12,633	640	13,628	26,901
FABF	4,613	77	4,878	9,568
LABF	2,794	1,469	3,703	7,966
<b>Total</b>	<b><u>50,962</u></b>	<b><u>19,735</u></b>	<b><u>47,592</u></b>	<b><u>118,289</u></b>

Source: Retirement Fund Financial Statements for each of the Retirement Funds for the fiscal year ended December 31, 2017.

Each Retirement Fund Board is a fiduciary of its respective Retirement Fund and is authorized to perform all functions necessary for operation of such Retirement Fund. The Pension Code authorizes each Retirement Fund Board to make certain decisions, including decisions regarding the investment of funds, the management of assets, the disbursement of benefits, and the hiring of staff, financial advisors and asset managers. Each Retirement Fund Board is authorized to promulgate rules and procedures regarding the administration of benefits and other matters in accordance with the Illinois Administrative Procedure Act, and decisions awarding, limiting, or denying benefits are subject to the Illinois Administrative Procedure Act. The Pension Code provides that the expenses incurred in connection with the administration of the Retirement Funds are not construed to be debt imposed upon the City. Such expenses are the obligation of the Retirement Funds exclusively, as separate bodies politic and corporate.

#### *Investments*

Each Retirement Fund Board manages the investments of its respective Retirement Fund. State law regulates the types of investments in which the Retirement Funds' assets may be invested. Furthermore, the Retirement Fund Boards invest the Retirement Funds' assets in accordance with the prudent person rule, which requires members of the Retirement Fund Boards, who are fiduciaries of the Retirement Funds, to discharge their duties with the care, prudence and diligence that a prudent person acting in a like capacity and familiar with such matters would use in a similar situation.

In carrying out their investment duty, the Retirement Fund Boards may appoint and review investment managers as fiduciaries to manage the investment assets of the Retirement Funds. Such investment managers are granted discretionary authority to manage the Retirement Funds' assets. Additional information regarding the Retirement Funds' investments and investment management may be found on the Retirement Funds' websites; provided, however, that the contents of such websites are not incorporated into this Section by such reference.

Table 2 provides information on the investment returns experienced by each of the Retirement Funds.

**TABLE 2 – INVESTMENT RATES OF RETURN, 2008 – 2017**

<b>Fiscal Year</b>	<b>MEABF</b>	<b>FABF</b>	<b>LABF</b>	<b>PABF</b>
2008	(28.7)%	(33.8)%	(29.2)%	(27.8)%
2009	19.6	23.7	21.5	21.9
2010	14.2	17.7	15.5	12.7
2011	0.1	(2.0)	(0.3)	0.8
2012	12.8	16.2	14.6	12.4
2013	16.1	19.5	15.8	14.5
2014	5.1	3.4	3.2	6.2
2015	2.1	(0.1)	(1.5)	(0.4)
2016	6.3	7.5	5.0	6.7
2017	15.1	17.9	18.6	16.7
Assumed Rate <sup>(1)</sup>	7.0	7.25	7.25	7.50

Source: For FABF, LABF and PABF, the respective Retirement Fund Financial Statements for the fiscal years 2008-2017. For MEABF, the MEABF Retirement Fund Financial Statements for the fiscal year ended December 31, 2017.

(1) Reflects the assumed rate of return in the respective Actuarial Valuations of the Retirement Funds measured as of December 31, 2017, as discussed in further detail under “*Actuarial Assumptions – Assumed Investment Rate of Return*” below.

### **Determination of Employee Contributions**

Currently, employees are required to contribute to their respective Retirement Fund as set forth in the Pension Code.

MEABF employees, other than Tier Three Members, currently contribute 8.5 percent of their salary to MEABF (consisting of a 6.5 percent contribution for employee benefits, a 1.5 percent contribution for spouse benefits, and a 0.5 percent contribution for an annuity increase benefit). Tier Three Members contribute 11.5 percent of their salary, unless such Tier Three Member is a Tier Three Member as a result of the Tier Three Election, in which case such Tier Three Member contributes the lesser of 11.5 percent of salary and the normal cost, provided that such contribution may not be less than 8.5 percent of salary. P.A. 100-23 provides for additional changes to these contributions upon a Future Tier Election.

PABF employees currently contribute 9.0 percent of their salary to PABF (consisting of a 7.0 percent contribution for employee benefits, a 1.5 percent contribution for spouse benefits and a 0.5 percent contribution for an annuity increase benefit).

FABF employees currently contribute 9.125 percent of their salary to FABF (consisting of a 7.125 percent contribution for employee benefits, a 1.5 percent contribution for spouse benefits, a 0.375 percent contribution for an annuity increase benefit and a 0.125 percent contribution for disability benefits).

LABF employees, other than Tier Three Members, currently contribute 8.5 percent of their salary to LABF (consisting of a 6.5 percent contribution for employee benefits, a 1.5 percent contribution for spouse benefits, and a 0.5 percent contribution for an annuity increase benefit). Tier Three Members contribute 11.5 percent of their salary, unless such Tier Three Member is a Tier Three Member as a result

of the Tier Three Election, in which case such Tier Three Member contributes the lesser of 11.5 percent of salary and the normal cost, provided that such contribution may not be less than 8.5 percent of salary. P.A. 100-23 provides for additional changes to these contributions upon a Future Tier Election.

For each Retirement Fund, if an employee leaves without qualifying for an annuity, accumulated employee contributions are refunded.

### **Determination of City's Contributions**

The provisions of the Pension Code mandate the amounts the City must contribute to the Retirement Funds, and the City is bound to contribute, and historically has contributed, the amounts required by the Pension Code.

The Pension Code provides that each Retirement Fund Board must annually certify to the City Council a determination of the required City contribution to such Retirement Fund. In making its request for the City's annual contribution, each Retirement Fund, acting through its Retirement Fund Board, annually approves and then submits a resolution to the City Council requesting that the City Council levy for a particular contribution amount. Except to the extent the City has used Other Available Funds (as defined below) in lieu of such levy, the City has generally levied the amounts so requested.\* Property taxes levied in a year are payable in the following year.

Historically, the Pension Code required the City to contribute to a Retirement Fund a statutory multiple of the amount contributed to such Retirement Fund by the employees who are members in such Retirement Fund two years prior to the year in which the property tax used to generate the contribution was levied (the "*Multiplier Funding System*"). The statutory multiple applicable to a Retirement Fund was set forth in the Pension Code article applicable to such Retirement Fund. The Multiplier Funding System did not adjust for changes in the funding level of such Retirement Fund and, as such, the contributions determined in accordance with the Multiplier Funding System did not relate to, and in many years, were substantially less than, the contribution amounts that would have resulted from an actuarial determination of such contribution.

The City's contributions to the Retirement Funds are no longer calculated in accordance with the Multiplier Funding System. Public Act 96-1495 ("P.A. 96-1495"), as modified by Public Act 99-506 ("P.A. 99-506" and, together with P.A. 96-1495, the "*FABF/PABF Funding Legislation*"), modified the articles of the Pension Code applicable to FABF and PABF to provide for calculation of the respective contributions to such Retirement Funds in accordance with the FABF/PABF Funding Plan (as hereinafter defined and described). P.A. 100-23 modified the articles of the Pension Code applicable to LABF and MEABF to provide for calculation of the respective contributions to such Retirement Funds in accordance with the LABF/MEABF Funding Plan (as hereinafter defined and described).

Prior to the passage of P.A. 100-23, the General Assembly enacted Public Act 98-641 ("P.A. 98-641"). Public Act 98-641 made substantial changes to the articles of the Pension Code applicable to LABF and MEABF, including a change to the manner in which contributions were made to such Retirement Funds. The Illinois Supreme Court determined that P.A. 98-641 was unconstitutional, after which the City continued contributing to LABF and MEABF in accordance with the Multiplier Funding System until the contributions required by P.A. 100-23 became effective.

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\* In past years, FABF has requested a contribution from the City which the City determined exceeded the amount required by the Pension Code. The City has indicated that it will not contribute amounts in excess of the amount the City has determined to be the statutory contribution requirement for the City to FABF in such prior years or in future years.

Pursuant to the FABF/PABF Funding Legislation, beginning in levy year 2020, the City must annually levy a property tax (unless Other Available Funds are used, as described below) for each of FABF and PABF in an amount necessary to achieve a Funded Ratio of 90 percent in such Retirement Funds by the end of fiscal year 2055 (the “*FABF/PABF Actuarial Funding*”). For levy years 2015 through 2019, the FABF/PABF Funding Legislation specifies the amounts of the property taxes to be levied by the City (unless Other Available Funds are used) in gradually increasing amounts ahead of the FABF/PABF Actuarial Funding (the “*FABF/PABF Phase-in Funding*” and, together with the FABF/PABF Actuarial Funding, the “*FABF/PABF Funding Plan*”). During the FABF/PABF Phase-in Funding, the City is required to levy (unless Other Available Funds are used) the following amounts pursuant to the FABF/PABF Funding Legislation: in levy year 2017, \$727 million; in levy year 2018, \$792 million; and in levy year 2019, \$824 million.

Pursuant to P.A. 100-23, beginning in levy year 2017, the City must annually levy a property tax (unless Other Available Funds are used) for each of LABF and MEABF in an amount necessary to achieve a Funded Ratio of 90 percent in such Retirement Funds by the end of fiscal year 2058 (the “*LABF/MEABF Actuarial Funding*”). For levy years 2017 through 2021, P.A. 100-23 specifies the amounts of the property taxes to be levied by the City (unless Other Available Funds are used) in gradually increasing amounts ahead of the LABF/MEABF Actuarial Funding (the “*LABF/MEABF Phase-in Funding*” and, together with the LABF/MEABF Actuarial Funding, the “*LABF/MEABF Funding Plan*”). During the LABF/MEABF Phase-in Funding, the City is required to levy (unless Other Available Funds are used) the following amounts pursuant to P.A. 100-23: in levy year 2017, \$302 million; in levy year 2018, \$392 million; in levy year 2019, \$481 million; in levy year 2020, \$571 million; and in levy year 2021, \$660 million.

The City’s contributions to the Retirement Funds have historically been made primarily from the proceeds of an annual levy of property taxes for each of the Retirement Funds (collectively, the “*Pension Levy*”) by the City solely for such purpose, as provided by the Pension Code. However, the Pension Code allows the City to use any other legally available funds (collectively, the “*Other Available Funds*,” as described below) in lieu of the Pension Levy to make its contributions to the Retirement Funds provided that such Other Funds are deposited with the City Treasurer for such purpose. The amount of the Pension Levy, like any City property tax levy, must be approved by the City Council. The Pension Levy is exclusive of and in addition to the amount of property taxes which the City levies for other purposes.

The portion of the City’s contribution presently made from Other Available Funds consists of several revenue sources, including (i) general corporate fund revenues, and (ii) revenues of the enterprise systems (with respect to the portion of the contribution allocable to the employees of the respective enterprise systems). See “– *Enterprise Fund Allocation of Retirement Fund Costs*” herein. Historically, the City used a portion of the PPRT revenues to pay a portion of the City’s contributions. The City has identified additional revenue sources to assist in making the increased contributions to LABF and MEABF as a result of the enactment of P.A. 100-23. With respect to LABF, the City expects that a portion of such increased contribution will be made from funds in the Corporate Fund made available as a result of an increase in the 911 surcharge. With respect to MEABF, the City intends to utilize revenues generated from a tax on water and sewer usage (the “*Excise Tax*”) which was imposed by the City Council on September 14, 2016, to fund a portion of the increase in the City’s contributions to MEABF. The City is considering whether to pledge the Excise Tax to the payment of certain of the bonds that could be issued as part of the Potential Pension Bond Transactions. See “– *Potential Pension Bond Transactions*” below.

The City’s contributions to the Retirement Funds in accordance with the Pension Code have not been sufficient, when combined with employee contributions and investment returns, to offset increases in the Retirement Funds’ liabilities, which has contributed to the significant underfunding of the Retirement Funds. Moreover, the contributions to the Retirement Funds in accordance with the Pension Code have had the effect of deferring the funding of the Retirement Funds’ liabilities, which increases the costs of such

liabilities and the associated financial risks, including the risk that each Retirement Fund will not be able to pay its obligations when due. Furthermore, increases in the City's contributions to the Retirement Funds caused the City to increase its revenues and may require the City to further increase its revenues, reduce its expenditures, or some combination thereof.

### **Diversion of Grant Money to the Retirement Funds**

The Pension Code allows the State Comptroller to divert State grant money intended for the City to satisfy pension contribution shortfalls by the City (the "*Recapture Provisions*"). If the City fails to contribute to any Retirement Fund as required by the Pension Code, the City will be subject to a reallocation of grants of State funds to the City if, among other requirements: (i) the City fails to make a required payment to such Retirement Fund as set forth in the applicable statute, (ii) the subject Retirement Fund gives notice of the failure to the City, and (iii) such Retirement Fund certifies to the State Comptroller that such payment has not been made. Upon the occurrence of these events, and the satisfaction of all other requirements, the State Comptroller will withhold grants of State funds from the City in an amount not in excess of the delinquent payment amount. The withholding of State grant funds by the State Comptroller as a result of the City's failure to contribute all or a portion of its required contributions may have an adverse impact on the City's finances.

In March 2018, FABF requested that the City contribute amounts for payment years 2016 and 2017 to compensate for delays or losses in collection of the Pension Levy for FABF due and payable in those years (the "*FABF Claimed Amounts*"). The City informed FABF that it would not make such additional payment for the FABF Claimed Amounts, which would be in excess of the City's obligations to FABF under the Pension Code for those years. Beginning in September 2018, in connection with the FABF Claimed Amounts, FABF filed claims with the State Comptroller and requested that the State Comptroller withhold grants of State funds due to the City in order to pay such claims. During September through November 2018, the State Comptroller's office notified the City that the State Comptroller's office is withholding grant funds in response to FABF's claims; in response, the City filed a protest with the State Comptroller's office as provided under the applicable regulations of the State Comptroller. On September 19, 2018, FABF filed a complaint for declaratory judgment and mandamus in the Circuit Court (as hereinafter defined) seeking payment from the City of \$3,340,203, plus interest, in connection with the FABF Claimed Amounts. Oral argument in this case was held on March 25, 2019. The City intends to vigorously defend this case.

On February 19, 2019, FABF requested that the City contribute \$7,863,149.89 for payment year 2018 to compensate for delays or losses in collection of the Pension Levy for FABF due and payable in that year. As with the FABF Claimed Amounts, the City informed FABF that the City would not make this additional payment, which would exceed the City's obligations to FABF under the Pension Code for 2018.

In September 2018, PABF requested that the City contribute amounts for payment years 2016 and 2017 to compensate for delays or losses in collection of the Pension Levy for PABF due and payable in those years (the "*PABF Claimed Amounts*"). The City informed PABF that it would not make such additional payment for the PABF Claimed Amounts, which would be in excess of the City's obligations to PABF under the Pension Code for those years. In November 2018, in connection with the PABF Claimed Amounts, PABF filed claims in the amounts of \$3,596,992 for 2016 and \$3,643,611 for 2017 with the State Comptroller and requested that the State Comptroller withhold grants of State funds due to the City in order to pay such claims. During December 2018 through February 2019, the State Comptroller's office notified the City that the State Comptroller's office is withholding grant funds in response to PABF's claims; in response, the City filed a protest with the State Comptroller's office as provided under the applicable regulations of the State Comptroller.

On February 13, 2019, PABF requested that the City contribute \$18,134,294 for payment year 2018 to compensate for delays or losses in collection of the Pension Levy for PABF due and payable in that year. As with the PABF Claimed Amounts, the City informed PABF that the City would not make this additional payment, which would exceed the City's obligations to PABF under the Pension Code for 2018.

The City can give no assurance as to the ultimate outcome of such requests or the legal proceedings related thereto.

## **Actuarial Valuation**

### *General*

The Pension Code requires that the Retirement Funds annually submit to the City Council a report containing a detailed statement of the affairs of such Retirement Fund, its income and expenditures, and assets and liabilities, which consists of the Actuarial Valuation. With respect to the Retirement Funds, the Actuarial Valuation measures the financial position of a Retirement Fund, determines the annual amount to be contributed by the City to such Retirement Fund pursuant to the statutory requirements described above, and produces certain information mandated by the financial reporting standards issued by the GASB, as described below.

In producing the Actuarial Valuations, the Retirement Funds' actuaries use demographic data (including employee age, salary and service credits), economic assumptions (including estimated future salary and interest rates), and decrement assumptions (including employee turnover, mortality and retirement rates) to produce the information required by the Prior GASB Standards or the New GASB Standards, each as hereinafter defined. The Retirement Funds' Actuarial Valuations are publicly available and may be obtained from the Retirement Funds. See “*– Source Information*” above. A description of the statistics generated by the Retirement Funds' actuaries in the Actuarial Valuations follows in the next few paragraphs. This information was derived from the Source Information.

GASB, which is part of a private non-profit corporation known as the Financial Accounting Foundation, promulgates standards regarding accounting and financial reporting for governmental entities. These principles have no legal effect and do not impose any legal liability on the City. The references to GASB principles in this Section do not suggest and should not be construed to suggest otherwise.

### *Prior GASB Standards*

For the fiscal years discussed in this Section prior to and including December 31, 2013, the applicable GASB financial reporting standards were GASB Statement No. 25 (“*GASB 25*”) and GASB Statement No. 27 (“*GASB 27*” and, together with GASB 25, the “*Prior GASB Standards*”). The Prior GASB Standards required the determination of the “Actuarially Required Contribution” (referred to in the Prior GASB Standards as the “Annually Required Contribution”), which was such pronouncement’s method for calculating the annual amounts needed to fully fund the Retirement Funds. The Actuarially Required Contribution was a financial reporting requirement and not a funding requirement. The Prior GASB Standards also required the calculation of pension funding statistics such as the UAAL (as defined and described herein) and the Funded Ratio in the Actuarial Valuation. In addition, the Prior GASB Standards allowed pension plans to prepare financial reports pursuant to a variety of approved actuarial methods, certain of which are described in “*– Actuarial Methods*” below.

As defined in GASB 25, the Actuarially Required Contribution consisted of two components: (1) that portion of the present value of pension plan benefits which is allocated to the valuation year by the

actuarial cost method (as described in “*– Actuarial Methods* – Actuarial Accrued Liability” below), termed the “Normal Cost”; and (2) an amortized portion of any UAAL.

The “Actuarial Accrued Liability” was an estimate of the present value of the benefits each Retirement Fund must pay to members as a result of past employment and participation in such Retirement Fund. The Actuarial Accrued Liability was calculated by use of a variety of demographic and other data (such as employee age, salary and service credits) and various assumptions (such as estimated salary increases, interest rates, employee turnover, retirement date and age and mortality and disability rates). The “Actuarial Value of Assets” reflected the value of the investments and other assets held by each Retirement Fund. Various methods existed under the Prior GASB Standards for calculating the Actuarial Value of Assets and the Actuarial Accrued Liability. For a discussion of the methods and assumptions used to calculate the Retirement Funds’ Actuarial Accrued Liability and Actuarial Value of Assets under GASB 25, see “*– Actuarial Methods*” and “*– Actuarial Assumptions*” below.

Any shortfall between the Actuarial Value of Assets and the Actuarial Accrued Liability was referred to as the “*Unfunded Actuarial Accrued Liability*” or “*UAAL*.” The UAAL represented the present value of benefits attributed to past service that are in excess of plan assets. In addition, the actuary computed the “*Funded Ratio*,” which was the Actuarial Value of Assets divided by the Actuarial Accrued Liability, expressed as a percentage. The Funded Ratio and the UAAL provide one way of measuring the financial health of a pension plan.

#### *New GASB Standards*

GASB 25 was replaced with GASB Statement No. 67 (“*GASB 67*”) and GASB Statement No. 68 (“*GASB 68*” and, together with GASB 67, the “*New GASB Standards*”) replaced GASB 27 beginning with the fiscal years ending December 31, 2014 and December 31, 2015, respectively. Unlike the Prior GASB Standards, the New GASB Standards do not establish approaches to funding pension plans. Instead, the New GASB Standards provide standards solely for financial reporting and accounting related to pension plans. The New GASB Standards require calculation and disclosure of a “*Net Pension Liability*,” which is the difference between the actuarial present value of projected benefit payments that are attributed to past periods of employee service calculated pursuant to the methods and assumptions set forth in the New GASB Standards (referred to in such statements as the “*Total Pension Liability*”) and the fair market value of the pension plan’s assets (referred to as the “*Fiduciary Net Position*”). This concept is similar to the UAAL, which was calculated under the Prior GASB Standards, but most likely will differ from the UAAL on any calculation date because the Fiduciary Net Position is calculated at fair market value and because of the differences in the manner of calculating the Total Pension Liability as compared to the Actuarial Accrued Liability under the Prior GASB Standards.

Furthermore, the New GASB Standards employ a rate, referred to in such statements as the “*Discount Rate*,” which is used to discount projected benefit payments to their actuarial present values. The Discount Rate may be a blended rate comprised of (1) a long-term expected rate of return on a Retirement Fund’s investments (to the extent that such assets are projected to be sufficient to pay benefits), and (2) a tax-exempt municipal bond rate meeting certain specifications set forth in the New GASB Standards. Therefore, in certain cases in which the assets of a Retirement Fund are not expected to be sufficient to pay the projected benefits of such Retirement Fund, the Discount Rate calculated pursuant to the New GASB Standards may differ from the assumed investment rate of return used in reporting pursuant to the Prior GASB Standards.

The New GASB Standards no longer require the calculation of the Actuarially Required Contribution. Under the New GASB Standards, the actuaries for the Retirement Funds calculate an Actuarially Determined Contribution (“*ADC*”) on a basis set forth in its Actuarial Valuation.

### *City's Contributions Not Related to GASB Standards*

The City's contributions to the Retirement Funds are not based on the contribution calculations promulgated by GASB for reporting purposes. Instead, the City's contributions are calculated pursuant to the formulas established in the Pension Code. See “*— Determination of City's Contributions*” above.

The methods for contributing to the Retirement Funds set forth in the Pension Code do not conform to the manner of funding established by the Prior GASB Standards, which was based on the Actuarially Required Contribution. The difference between the City's actual contributions and the Actuarially Required Contribution (as calculated by the Retirement Funds' actuaries) for fiscal years 2008-2014 is shown in TABLE 4 – “INFORMATION REGARDING CITY'S CONTRIBUTIONS – AGGREGATED” below. Each Retirement Fund's Actuarially Required Contribution is equal to its Normal Cost plus an amortization of the Retirement Funds' UAAL over a 30-year period. MEABF, LABF and FABF amortize the UAAL on a level dollar basis, whereas PABF amortizes the UAAL on a level percent of payroll basis. Both methods of calculating the Actuarially Required Contribution were acceptable under the Prior GASB Standards.

Furthermore, following the expiration of the LABF/MEABF Phase-In Funding in 2022, the City will contribute an actuarially determined amount to each of the Retirement Funds, as opposed to the current, non-actuarial, Multiplier-based approach. The FABF/PABF Funding Plan and the LABF/MEABF Funding Plan (together, the “*Funding Plans*”) differ from the manner of calculation required by the Prior GASB Standards for financial reporting purposes, primarily because the goal of the Funding Plans is to reach a Funded Ratio in the respective Retirement Funds of 90 percent whereas the Prior GASB Standards required the Retirement Funds to amortize the UAAL towards attainment of a 100 percent Funded Ratio.

Table 3 provides information on the Actuarially Required Contribution (and, beginning in fiscal year 2015, the ADC), the City's actual contributions in accordance with the Pension Code and the percentage of the Actuarially Required Contribution made in each year.

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**TABLE 3 – INFORMATION REGARDING CITY CONTRIBUTIONS<sup>(1)</sup> – AGGREGATED**

Fiscal Year	Actuarially Required Contribution/ADC	Actual Employer Contribution <sup>(2)</sup>	Percentage of Actuarially Required Contribution Contributed
2008	\$ 886,215	\$ 416,130	47.0%
2009	990,381	423,929	42.8
2010	1,112,626	425,552	38.2
2011	1,321,823	416,693	31.5
2012	1,470,905	440,120	29.9
2013	1,695,278	442,970	26.1
2014	1,740,973	447,400	25.7
2015 <sup>(3)</sup>	1,866,097	973,669 <sup>(4)</sup>	52.2 <sup>(4)</sup>
2016 <sup>(3)</sup>	2,198,449	590,262 <sup>(4)</sup>	26.9 <sup>(4)</sup>
2017 <sup>(3)</sup>	2,413,466	1,020,254	42.3

Sources: The Retirement Fund Financial Statements for each of the Retirement Funds.

- (1) In thousands of dollars. Data is presented in the aggregate for the Retirement Funds and uses assumptions and methods employed by each of the Retirement Funds.
- (2) Includes the portion of the PPRT contributed to the Retirement Funds in each year.
- (3) As described under the heading “*Determination of City’s Contributions*,” the New GASB Standards no longer require the calculation of the Actuarially Required Contribution. Under the New GASB Standards, the actuaries for the Retirement Funds calculate an ADC on a basis set forth in its Actuarial Valuation.
- (4) The increase in contributions for fiscal year 2015 and subsequent decrease for fiscal year 2016 result from the timing of changes to the Pension Code with respect to PABF and FABF. P.A. 99-506, which modified the provisions of P.A. 96-1495, became effective in May 2016. Prior to the adoption of P.A. 99-506, the City’s contributions to PABF and FABF were scheduled to increase substantially pursuant to P.A. 96-1495. The Fiscal Year 2015 Actuarial Valuations for PABF and FABF were prepared prior to the adoption of P.A. 99-506, and therefore recorded a receivable for employer contributions to be received during fiscal year 2016 based on the P.A. 96-1495 requirements. As a result of this modification, the actual employer contributions received were substantially less than the receivable reflected in the fiscal year 2015 Actuarial Valuations. For financial reporting purposes, this difference was reported as a reduction to the fiscal year 2016 employer contributions in the fiscal year 2016 Actuarial Valuations for PABF and FABF.

## Actuarial Methods

The Retirement Funds’ actuaries employ a variety of actuarial methods to arrive at the pension statistics required by the Prior GASB Standards and the New GASB Standards. Certain of these methods are discussed in the following sections.

### *Actuarial Value of Assets*

Under the Prior GASB Standards, the Retirement Funds calculate their respective Actuarial Value of Assets by smoothing investment gains and losses over a period of five years, a method of valuation referred to as the “*Asset Smoothing Method*.” Under the Asset Smoothing Method, the Retirement Funds recognize in the current year 20 percent of the investment gain or loss realized in that year and each of the previous four years. The Asset Smoothing Method was an allowable method of calculating the Actuarial Value of Assets under the Prior GASB Standards.

The Asset Smoothing Method lessens the immediate impact of market fluctuations on the Actuarial Value of Assets, which is used to calculate the UAAL and the Funded Ratio, that may otherwise occur as a result of market volatility. However, asset smoothing delays recognition of gains and losses, thereby providing an Actuarial Value of Assets that differs from the market value of pension plan assets at the time

of measurement. As a result, presenting the Actuarial Value of Assets as determined under the Asset Smoothing Method might provide a more or less favorable presentation of the current financial position of a pension plan than would a method that recognizes investment gains and losses annually.

As described above, under the New GASB Standards, the Fiduciary Net Position is equal to the fair market value of a pension plan's assets as of the date of determination. As such, the Asset Smoothing Method does not apply to the determination of the Fiduciary Net Position under the New GASB Standards.

Table 4 provides a comparison of the assets of the Retirement Funds (as aggregated) on a fair value basis and after application of the Asset Smoothing Method.

**TABLE 4 – ACTUARIAL VALUE OF ASSETS VS. FAIR VALUE OF NET ASSETS – AGGREGATED<sup>(1)</sup>**

Fiscal Year	Actuarial Value of Assets <sup>(2)</sup>	Fair Value of Net Assets	Actuarial Value as a Percentage of Fair Value
2008	\$13,797,344	\$ 9,844,339	140.2%
2009	13,051,349	10,876,846	120.0
2010	12,449,863	11,408,555	109.1
2011	11,521,138	10,536,135	109.4
2012	10,531,447	10,799,603	97.5
2013	10,513,564	11,261,254	93.4
2014	10,339,208	10,665,597	96.9
2015	10,391,269	10,084,136	103.0
2016	9,980,946	9,488,001	105.2
2017	9,929,270	10,069,793	98.6

Source: 2008 through 2010 data is from the Actuarial Valuations of the Retirement Funds as of December 31, 2010, and from the Retirement Fund Financial Statements for each of the Retirement Funds for the fiscal year ended December 31, 2010. Data from 2011 through 2017 is from the Actuarial Valuations of the Retirement Funds for the fiscal years 2011 through 2017.

(1) In thousands of dollars. Data is presented in the aggregate for the Retirement Funds.

(2) The Actuarial Value of Assets is calculated through use of the Asset Smoothing Method.

#### *Actuarial Accrued Liability*

As the final step in the calculation of actuarial liabilities, the actuary applies a cost method to allocate the total value of benefits to past, present and future periods of employee service. This allocation is accomplished by the development of the Actuarial Accrued Liability and the Normal Cost under the Prior GASB Standards and the Pension Code and the Total Pension Liability under the New GASB Standards. Currently, all of the Retirement Funds use the entry age normal actuarial cost method (the “*EAN Method*”) with costs allocated on the basis of earnings. The EAN Method was an approved actuarial cost method under the Prior GASB Standards and is the only allowable actuarial cost method under the New GASB Standards.

Under the EAN Method, the present value of each employee's projected pension is assumed to be funded by annual installments equal to a level percentage of the employee's earnings for each year between entry age and assumed exit age. Each employee's Normal Cost, as calculated pursuant to the Prior GASB Standards, for the current year is equal to the portion of the value so determined, assigned to the current year. Therefore, the Normal Cost for the plan for the year is the sum of the Normal Costs of all employees.

The Actuarial Accrued Liability is the portion of the present value of benefits assigned by the cost method to years of service up to the valuation date, i.e., for past service. This value changes as the employee's salary changes and years of service increase, and as some employees leave and new employees are hired. Future Normal Cost is the portion of the present value of benefits assigned to future years of service and is assumed to be funded annually.

### **Actuarial Assumptions**

The Actuarial Valuations of the Retirement Funds use a variety of assumptions in order to calculate the statistics required by the Prior GASB Standards and the New GASB Standards. Although several of the assumptions are the same across all of the Retirement Funds, each Retirement Fund determines, within actuarial standards, the assumptions to be used in its Actuarial Valuation unless a specific assumption is fixed by the Pension Code. No assurance can be given that any of the assumptions underlying the Actuarial Valuations will reflect the actual results experienced by the Retirement Funds. Variances between the assumptions and actual results may cause increases or decreases in the statistics calculated pursuant to the Prior GASB Standards or the New GASB Standards. Additional information on each Retirement Fund's actuarial assumptions is available in the respective 2017 Actuarial Valuation of the Retirement Funds. See "*– Source Information*" above.

The actuarial assumptions used by the Retirement Funds are determined by the individual Retirement Fund Boards upon the advice of the actuary for each Retirement Fund Board. The Retirement Funds periodically perform experience studies to evaluate the actuarial assumptions in use. The purpose of an experience study is to validate that the actuarial assumptions used in the Actuarial Valuation continue to reasonably estimate the actual experience of the pension plan or, if necessary, to develop recommendations for modifications to the actuarial assumptions to ensure their continuing appropriateness.

### *Assumed Investment Rate of Return*

The Actuarial Valuations assume an investment rate of return on the assets in each Retirement Fund. The average long-term investment rates of return currently assumed by the Retirement Funds are described in Table 2 above. Due to the volatility of the marketplace, however, the actual rate of return earned by the Retirement Funds on their assets in any year may be higher or lower than the assumed rate. Changes in the Retirement Funds' assets as a result of market performance will lead to an increase or decrease in the UAAL and the Funded Ratio. As a result of the Retirement Funds' use of the Asset Smoothing Method, however, only a portion of these increases or decreases will be recognized in the current year, with the remaining gain or loss spread over the remaining four years. See "*– Actuarial Methods – Actuarial Value of Assets*" above.

The assumed investment rate of return is used by each Retirement Fund's actuary as the discount rate to determine the present value of future payments to such Retirement Fund's members. Such a determination is part of the actuary's process to develop the Actuarial Accrued Liability under the Prior GASB Standards. Reducing the assumed investment rate of return will, taken independently of other changes, produce a larger Actuarial Accrued Liability for each Retirement Fund. Furthermore, as discussed above, an increase in the Actuarial Accrued Liability will, taken independently, increase the UAAL, decrease the Funded Ratio and increase the Actuarially Required Contribution.

Under the New GASB Standards, each Retirement Fund's actuary will calculate the Discount Rate, as described under "*– Actuarial Valuation – New GASB Standards*" above, a reduction in which will, taken independently of other factors, produce a larger Total Pension Liability for each Retirement Fund. Information regarding the Discount Rate and the sensitivity of the Total Pension Liability to changes in the

Discount Rate is provided below in TABLE 12 – SENSITIVITY OF NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE.

The current investment rates of return assumed by each Retirement Funds are set forth in TABLE 2 – “INVESTMENT RATES OF RETURN 2008-2017” above.

Changes to the assumed investment rate of return do not impact contributions by the City to Retirement Funds when such contributions are specified in statute, such as the City’s contributions to the Retirement Funds during the FABF/PABF Phase-in Funding and the LABF/MEABF Phase-in Funding Plan (together, the “*Phase-In Periods*”). Beginning in 2023, following the expiration of the Phase-in Periods, when the City must contribute to the Retirement Funds on an actuarial basis, decreases in the assumed investment rate of return with respect to the Retirement Funds would, taken independently of other factors, increase the City’s required contributions to the Retirement Funds because the UAAL of the Retirement Funds would increase as described above, and the Funding Plans require an amortization of the UAAL to reach a 90 percent funding target.

### **Funded Status of the Retirement Funds**

In recent years, the City has contributed to the Retirement Funds the amounts determined by the City to be required by the Pension Code. Such contributions have been made from a combination of property tax revenues (through the Pension Levy), PPRT funds, General Fund revenues, and enterprise revenues.\* However, these amounts have not been sufficient, when combined with employee contributions and investment returns, to offset increases in the liabilities of the Retirement Funds. Moreover, expenses related to the retiree health plan (as further described below) have been paid from the City’s contributions, which has had the effect of reducing the Actuarial Value of Assets and decreasing the Funded Ratio.

Furthermore, the income from all sources (including employee contributions, City contributions and investment earnings) to the Retirement Funds has been lower than the cash outlays of the Retirement Funds in some recent years. As a result, the Retirement Funds have liquidated investments and used assets of the Retirement Funds to satisfy these cash outlays. The use of investment earnings or assets of the Retirement Funds for these purposes reduces the amount of assets on hand to pay benefits in the future and prevents the Retirement Funds from recognizing the full benefits of compounding investment returns.

The following tables summarize the financial condition and the funding trends of the Retirement Funds.

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\*As discussed under “—*Diversion of Grant Money to the Retirement Funds*” above, the City and FABF have disagreed over whether certain amounts are required under the Pension Code.

**TABLE 5 – FINANCIAL CONDITION OF THE MEABF**  
**FISCAL YEARS 2008 – 2017**  
**(\$ IN THOUSANDS)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beginning Net Position (Fair Value)	\$ 7,009,523	\$ 4,739,614	\$ 5,166,225	\$ 5,435,593	\$ 5,053,248	\$ 5,182,669	\$ 5,421,677	\$ 5,179,486	\$ 4,741,428	\$ 4,436,228
Income										
– Employee Contributions	137,749	130,981	133,300	132,596	130,266	131,532	129,972	131,428	130,391	134,765
– City Contributions	155,833	157,698	164,302	156,525	158,381	157,705	158,798	157,717	157,444	261,764
– Investment Income <sup>(1)</sup>	(1,947,576)	778,562	638,569	31,583	589,198	735,272	283,282	114,025	281,419	610,514
– Miscellaneous Income	–	–	24	–	–	–	–	–	–	5,394
Total	\$ (1,653,994)	\$ 1,067,241	\$ 926,195	\$ 320,705	\$ 877,845	\$ 1,024,509	\$ 572,052	\$ 403,170	\$ 569,254	\$ 1,012,437
Expenditures										
– Benefits and Refunds <sup>(2)</sup>	608,166	632,864	660,081	695,674	741,583	779,003	807,674	834,527	867,397	888,173
– Administration	7,749	7,766	6,745	7,375	6,841	6,499	6,568	6,701	\$ 7,057	6,473
Total	\$ 615,915	\$ 640,630	\$ 666,826	\$ 703,050	\$ 748,425	\$ 785,502	\$ 814,242	\$ 841,228	\$ 874,454	\$ 894,646
Ending Net Position (Fair Value)	\$ 4,739,614	\$ 5,166,225	\$ 5,435,593	\$ 5,053,248	\$ 5,182,669	\$ 5,421,677	\$ 5,179,486	\$ 4,741,428	\$ 4,436,228	\$ 4,554,019
Actuarial Value of Assets <sup>(3)</sup>	\$ 6,669,502	\$ 6,295,788	\$ 6,003,390	\$ 5,552,291	\$ 5,073,320	\$ 5,114,208	\$ 5,039,297	\$ 4,815,127	\$ 4,590,366	\$ 4,456,772
Actuarial Accrued Liabilities	10,383,158	10,830,119	11,838,666	12,292,930	13,475,376	13,828,920	12,307,094	14,647,115	15,055,349	16,282,396
UAAL (Fair Value) <sup>(4)</sup>	5,643,544	5,663,894	6,333,073	7,239,681	8,292,706	8,407,244	7,127,608	9,905,687	10,619,121	11,728,377
UAAL (Actuarial Value) <sup>(5)</sup>	3,713,656	4,534,331	5,825,276	6,740,639	8,402,057	8,714,712	7,267,797	9,831,988	10,464,983	11,825,624
Funded Ratio (Fair Value) <sup>(4)</sup>	45.6%	47.7%	46.0%	41.1%	38.5%	39.2%	42.1%	32.4%	29.5%	28.0%
Funded Ratio (Actuarial Value) <sup>(3)</sup>	64.2%	58.1%	50.8%	45.2%	37.6%	37.0%	40.9%	32.9%	30.5%	27.4%

Source: 2008 through 2010 data is from the Actuarial Valuation of MEABF as of December 31, 2010, and the Retirement Fund Financial Statements of MEABF for the fiscal year ended December 31, 2010. 2011 through 2017 data is from the MEABF Retirement Fund Financial Statements for the fiscal years 2011 through 2017. Table may not add due to rounding.

(1) Investment income is shown net of fees and expenses.  
 (2) Includes expenses related to other post-employment benefits. See “OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS” below.

(3) The actuarial value is determined by application of the Asset Smoothing Method as discussed in “Actuarial Methods – Actuarial Value of Assets” above.  
 (4) Calculated using net assets.

**TABLE 6 – FINANCIAL CONDITION OF THE PABF  
FISCAL YEARS 2008 – 2017**  
(\$ IN THOUSANDS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beginning Net Position (Fair Value)	\$ 4,333,234	\$ 3,000,998	\$ 3,326,050	\$ 3,439,669	\$ 3,175,509	\$ 3,213,433	\$ 3,265,199	\$ 3,062,013	\$ 3,058,948	\$ 2,865,018
Income										
– Employee Contributions	93,207	95,614	108,402	98,222	95,892	93,329	95,676	107,626	101,476	103,011
– City Contributions	181,526	180,511	183,835	183,522	207,228	188,889	187,075	582,278	281,583	494,483
– Investment Income <sup>(1)</sup>	(1,104,909)	567,315	369,558	33,656	353,176	415,294	181,901	(5,334)	142,699	412,190
– Miscellaneous Income										
Total	160	799	20	104	423	479	740	3092	1,413	97
	\$ (830,016)	\$ 844,239	\$ 661,815	\$ 315,504	\$ 656,719	\$ 697,991	\$ 465,392	\$ 687,662	\$ 527,171	\$ 1,009,781
Expenditures										
– Benefits and Refunds <sup>(2)</sup>	497,721	514,883	544,272	575,305	613,907	641,926	664,338	686,664	716,821	748,390
– Administration	4,499	4,304	3,925	4,359	4,888	4,298	4,241	4,063	4,280	4,345
Total	\$ 502,220	\$ 519,187	\$ 548,197	\$ 579,664	\$ 618,795	\$ 646,224	\$ 668,579	\$ 690,727	\$ 721,101	\$ 752,735
Ending Net Position (Fair Value)	\$ 3,000,998	\$ 3,326,050	\$ 3,439,669	\$ 3,175,509	\$ 3,213,433	\$ 3,265,199	\$ 3,062,013	\$ 3,058,948	\$ 2,865,018	\$ 3,122,064
Actuarial Value of Assets <sup>(3)</sup>	\$ 4,093,720	\$ 3,884,978	\$ 3,718,955	\$ 3,444,690	\$ 3,148,930	\$ 3,053,882	\$ 2,954,319	\$ 3,186,424	\$ 3,052,057	\$ 3,103,990
Actuarial Accrued Liabilities	8,482,574	8,736,102	9,210,056	9,322,395	10,051,827	10,282,339	11,334,799	11,651,188	12,856,550	13,093,883
UAAL (Fair Value) <sup>(4)</sup>	5,481,576	5,410,052	5,770,387	6,346,886	6,839,394	7,017,139	8,272,786	8,592,240	9,991,532	9,971,819
UAAL (Actuarial Value) <sup>(3)</sup>	4,388,854	4,851,124	5,491,101	6,077,705	6,902,988	7,228,457	8,380,480	8,464,764	9,804,493	9,989,893
Funded Ratio (Fair Value) <sup>(4)</sup>	35.4%	38.1%	37.3%	33.4%	32.0%	31.8%	27.0%	26.3%	22.3%	23.8%
Funded Ratio (Actuarial Value) <sup>(3)</sup>	48.3%	44.5%	40.4%	36.2%	31.3%	29.7%	26.1%	27.4%	23.7%	23.7%

Source: 2008 through 2010 data is from the Actuarial Valuation of PABF as of December 31, 2010, and the PABF Retirement Fund Financial Statements for the fiscal year ended December 31, 2010. Data from 2011 through 2017 is from the PABF Retirement Fund Financial Statements for the fiscal years 2011 through 2017. Table may not add due to rounding.

(1) Investment income is shown net of fees and expenses.

(2) Includes expenses related to other post-employment benefits. See “OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS” below.

(3) The actuarial value is determined by application of the Asset Smoothing Method as discussed in “Actuarial Methods – Actuarial Value of Assets” above.

(4) Calculated using net assets.

**TABLE 7 – FINANCIAL CONDITION OF THE FABF**  
**FISCAL YEARS 2008 – 2017**  
**(\$ IN THOUSANDS)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beginning Net Position (Fair Value)	\$ 1,469,455	\$ 914,193	\$ 1,051,643	\$ 1,106,078	\$ 993,774	\$ 1,032,423	\$ 1,116,705	\$ 1,036,006	\$ 1,045,101	\$ 1,019,014
Income										
– Employee Contributions	40,480	41,605	41,730	51,918	56,718	42,520	48,056	46,554	48,960	47,364
– City Contributions	83,744	91,857	83,592	85,498	84,144	106,220	109,805	238,486	156,158	228,453
– Investment Income <sup>(1)</sup>	(484,093)	208,537	150,835	(22,434)	135,203	190,536	30,868	7,596	55,362	140,507
– Miscellaneous Income	107	36	30	17	8	(60)	7	7	5,526	86
Total	\$ (359,762)	\$ 342,035	\$ 276,187	\$ 114,999	\$ 276,073	\$ 339,216	\$ 188,736	\$ 292,643	\$ 266,006	\$ 416,410
Expenditures										
– Benefits and Refunds <sup>(2)</sup>	192,644	201,146	217,565	223,580	233,840	251,819	266,365	280,398	288,876	306,098
– Administration	2,856	3,439	4,187	3,723	3,584	3,115	3,069	3,150	3,217	3,172
Total	\$ 195,500	\$ 204,585	\$ 221,752	\$ 227,303	\$ 237,424	\$ 254,934	\$ 269,434	\$ 283,548	\$ 292,093	\$ 309,270
Ending Net Position (Fair Value)	\$ 914,193	\$ 1,051,643	\$ 1,106,079	\$ 993,774	\$ 1,032,423	\$ 1,116,705	\$ 1,036,006	\$ 1,045,101	\$ 1,019,014	\$ 1,126,154
Actuarial Value of Assets <sup>(3)</sup>	\$ 1,335,695	\$ 1,269,231	\$ 1,198,114	\$ 1,101,742	\$ 993,284	\$ 991,213	\$ 988,141	\$ 1,081,042	\$ 1,074,858	\$ 1,123,389
Actuarial Accrued Liabilities	3,311,269	3,428,838	3,655,026	3,851,919	4,020,138	4,128,735	4,338,593	4,666,801	5,045,890	5,582,426
UAAL (Fair Value) <sup>(4)</sup>	2,397,076	2,377,195	2,548,947	2,858,145	2,987,715	3,012,030	3,302,587	3,621,700	4,026,876	4,456,272
UAAL (Actuarial Value) <sup>(3)</sup>	1,975,574	2,159,607	2,456,912	2,750,177	3,026,854	3,137,522	3,350,452	3,585,759	3,971,032	4,459,037
Funded Ratio (Fair Value) <sup>(4)</sup>	27.6%	30.7%	30.3%	25.8%	25.7%	27.0%	23.9%	22.4%	20.2%	20.2%
Funded Ratio (Actuarial Value) <sup>(3)</sup>	40.3%	37.0%	32.8%	28.6%	24.7%	24.0%	22.8%	23.2%	21.3%	20.1%

Source: 2008 through 2010 data is from the Actuarial Valuation of FABF as of December 31, 2010, and the FABF Retirement Fund Financial Statements for the fiscal year ended December 31, 2010. Data from 2011 through 2017 is from the FABF Retirement Fund Financial Statements for the fiscal years 2011 through 2017. Table may not add due to rounding.

(1) Investment income is shown net of fees and expenses.

(2) Includes expenses related to other post-employment benefits. See “OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS” below.

(3) The actuarial value is determined by application of the Asset Smoothing Method as discussed in “Actuarial Methods – Actuarial Value of Assets” above.

(4) Calculated using net assets.

**TABLE 8 – FINANCIAL CONDITION OF THE LABF**  
**FISCAL YEARS 2008 – 2017**  
(\$ IN THOUSANDS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beginning Net Position (Fair Value)	\$ 1,782,818	\$ 1,188,581	\$ 1,332,928	\$ 1,427,214	\$ 1,313,604	\$ 1,371,077	\$ 1,457,673	\$ 1,388,092	\$ 1,238,657	\$ 1,167,741
Income										
– Employee Contributions	19,419	17,538	16,320	16,069	16,559	16,393	16,359	16,844	17,246	17,411
– City Contributions	17,580	17,190	17,939	15,359	14,415	14,101	14,520	14,567	14,443	35,457
– Investment Income <sup>(1)</sup>	(510,463)	237,102	193,187	(4,511)	173,460	207,344	53,393	(22,318)	57,998	207,982
– Miscellaneous Income	–	–	–	–	–	–	–	–	–	–
Total	\$ (473,464)	\$ 271,830	\$ 227,446	\$ 26,917	\$ 204,434	\$ 237,838	\$ 84,272	\$ 9,097	\$ 89,687	\$ 260,850
Expenditures										
– Benefits and Refunds <sup>(2)</sup>	117,147	123,817	129,297	136,533	142,215	147,108	150,018	154,683	156,523	157,050
– Administration	3,626	3,665	3,864	3,994	4,746	4,134	3,835	3,844	4,080	3,985
Total	\$ 120,773	\$ 127,482	\$ 133,161	\$ 140,527	\$ 146,961	\$ 151,242	\$ 153,853	\$ 158,528	\$ 160,603	\$ 161,035
Ending Net Position (Fair Value)	\$ 1,188,581	\$ 1,332,928	\$ 1,427,214	\$ 1,313,604	\$ 1,371,077	\$ 1,457,673	\$ 1,388,092	\$ 1,238,657	\$ 1,167,741	\$ 1,267,556
Actuarial Value of Assets <sup>(3)</sup>	\$ 1,698,427	\$ 1,601,352	\$ 1,529,404	\$ 1,422,414	\$ 1,315,914	\$ 1,354,261	\$ 1,357,451	\$ 1,308,676	\$ 1,263,665	\$ 1,245,119
Actuarial Accrued Liabilities	1,915,324	1,975,749	2,030,025	2,152,854	2,336,189	2,383,499	2,107,110	2,467,746	2,509,273	2,578,745
UAAL (Fair Value) <sup>(4)</sup>	726,743	642,821	602,811	839,250	965,112	925,826	719,018	1,231,222	1,341,532	1,311,189
UAAL (Actuarial Value) <sup>(3)</sup>	216,897	374,397	500,621	730,440	1,020,276	1,029,238	749,659	1,159,070	1,245,608	1,333,626
Funded Ratio (Fair Value) <sup>(4)</sup>	62.1%	67.5%	70.3%	61.0%	58.7%	61.2%	65.9%	50.2%	46.5%	49.2%
Funded Ratio (Actuarial Value) <sup>(3)</sup>	88.7%	81.1%	75.3%	66.1%	56.3%	56.8%	64.4%	53.0%	50.4%	48.3%

Source: 2008 through 2010 data is from the Actuarial Valuation of LABF as of December 31, 2010, and the LABF Retirement Fund Financial Statements for the fiscal year ended December 31, 2010. Data from 2011 through 2017 is from the LABF Retirement Fund Financial Statements for the fiscal years 2011 through 2015. Table may not add due to rounding.

(1) Investment income is shown net of fees and expenses.

(2) Includes expenses related to other post-employment benefits. See “OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS” below.

(3) The actuarial value is determined by application of the Asset Smoothing Method as discussed in “—Actuarial Methods – Actuarial Value of Assets” above.

(4) Calculated using net assets.

**TABLE 9 – FINANCIAL CONDITION OF THE RETIREMENT FUNDS COMBINED**  
**FISCAL YEARS 2008 – 2017**  
(\$ IN THOUSANDS)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beginning Net Position (Fair Value)	\$ 14,595,030	\$ 9,843,386	\$ 10,876,847	\$ 11,408,554	\$ 10,536,135	\$ 10,799,602	\$ 11,261,254	\$ 10,665,598	\$ 10,084,134	\$ 9,488,001
Income										
– Employee Contributions	290,855	285,738	299,752	298,805	299,435	283,774	290,063	302,452	298,073	302,551
– City Contributions	438,683	447,256	449,668	440,904	464,168	466,915	470,198	993,048	609,628	1,020,157
– Investment Income <sup>(1)</sup>	(4,047,041)	1,791,516	1,352,149	38,294	1,251,037	1,548,446	549,444	93,969	537,478	1,371,193
– Miscellaneous Income	267	835	74	121	431	419	747	3,099	6,939	5,577
Total	\$ (3,317,236)	\$ 2,525,345	\$ 2,101,643	\$ 778,124	\$ 2,015,071	\$ 2,299,554	\$ 1,310,452	\$ 1,392,568	\$ 1,452,118	\$ 2,699,478
Expenditures										
– Benefits and Refunds <sup>(2)</sup>	1,415,678	1,472,710	1,551,215	1,631,092	1,731,545	1,819,856	1,888,395	1,956,272	2,029,617	2,099,711
– Administration	18,730	19,174	18,721	19,451	20,059	18,046	17,713	17,758	18,634	17,975
Total	\$ 1,434,408	\$ 1,491,884	\$ 1,569,936	\$ 1,650,543	\$ 1,751,604	\$ 1,837,902	\$ 1,906,108	\$ 1,974,030	\$ 2,048,251	\$ 2,117,686
Ending Net Position (Fair Value)	\$ 9,843,386	\$ 10,876,847	\$ 11,408,554	\$ 10,536,135	\$ 10,799,602	\$ 11,261,254	\$ 10,665,598	\$ 10,084,136	\$ 9,488,001	\$ 10,069,793
Actuarial Value of Assets <sup>(3)</sup>	13,797,344	13,051,349	12,449,863	11,521,137	10,531,448	10,513,564	10,339,208	10,391,269	9,980,946	9,929,270
Actuarial Accrued Liabilities	24,092,325	24,970,808	26,723,773	27,820,098	29,883,530	30,623,493	30,087,596	33,432,850	35,467,062	37,537,450
UAAL (Fair Value) <sup>(4)</sup>	14,248,939	14,093,961	15,315,219	17,283,963	19,083,928	19,362,239	19,421,998	23,348,714	25,979,061	27,467,657
UAAL (Actuarial Value) <sup>(3)</sup>	10,294,981	11,919,459	14,273,910	16,298,961	19,352,082	20,109,929	19,748,388	23,041,581	25,486,116	27,608,180
Funded Ratio (Fair Value) <sup>(4)</sup>	40.9%	43.6%	42.7%	37.9%	36.1%	36.8%	35.4%	30.2%	26.8%	26.8%
Funded Ratio (Actuarial Value) <sup>(3)</sup>	57.3%	52.3%	46.6%	41.4%	35.2%	34.3%	34.4%	31.1%	28.1%	26.5%

Source: 2008 through 2010 data is from the Actuarial Valuations of the Retirement Funds as of December 31, 2010, and the Retirement Fund Financial Statements for the fiscal year ended December 31, 2010. Data from 2011 through 2017 is from the Retirement Fund Financial Statements for the fiscal years 2011 through 2017. Table may not add due to rounding.

(1) Investment income is shown net of fees and expenses.

(2) Includes expenses related to other post-employment benefits beginning in each of the fiscal years as shown in Footnote 2 in Tables 6 through 9 herein for each respective Retirement Fund. See “OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS” below.

(3) The actuarial value is determined by application of the Asset Smoothing Method as discussed in “Actuarial Methods – Actuarial Value of Assets” above.

(4) Calculated using net assets.

**TABLE 10 – SCHEDULE OF FUNDING PROGRESS – COMBINED FOR THE RETIREMENT FUNDS**  
**FISCAL YEARS 2008 – 2017**  
(\$ IN THOUSANDS)

Fiscal Year	Actuarial Accrued Liability <sup>(1)</sup>	Actuarial Value of Assets <sup>(2)</sup>	Fair Value of Net Assets	UAAL (Actuarial) <sup>(3)</sup>	UAAL (Fair Value) <sup>(4)</sup>	Funded Ratio (Actuarial) <sup>(3)</sup>	Funded Ratio (Fair Value) <sup>(4)</sup>	UAAL to Payroll (Actuarial) <sup>(3)</sup>	UAAL to Payroll (Fair Value) <sup>(4)</sup>
2008	\$24,092,325	\$13,797,344	\$9,843,386	\$10,294,981	\$14,248,939	57.3%	40.9%	\$3,180,484	323.7%
2009	24,970,808	13,051,349	10,876,846	11,919,459	14,093,962	52.3	43.6	3,172,716	375.7
2010	26,723,773	12,449,863	11,408,555	14,273,910	15,315,218	46.6	42.7	3,189,739	447.5
2011	27,820,098	11,521,138	10,536,135	16,298,960	16,696,869	41.4	37.9	3,261,021	499.8
2012	29,883,532	10,531,448	10,799,603	19,352,084	19,083,929	35.2	36.1	3,223,720	600.3
2013	30,623,493	10,513,564	11,261,254	20,109,929	19,362,239	34.3	36.8	3,212,558	626.0
2014	30,087,596	10,339,208	10,665,597	19,748,388	19,421,999	34.4	35.4	3,340,174	591.2
2015	33,432,850	10,391,269	10,084,136	23,041,581	23,348,714	31.1	30.2	3,495,288	659.2
2016	35,467,062	9,980,946	9,488,001	25,486,116	25,756,157	28.1	27.4	3,449,710	738.8
2017	37,537,450	9,929,270	10,069,793	27,608,180	27,467,657	26.5	26.8	3,514,788	785.5

Source: 2006 through 2010 data is from the Actuarial Valuations of the Retirement Funds as of December 31, 2010, and the Retirement Funds Financial Statements for each of the Retirement Funds for the fiscal year ended December 31, 2010. 2011 through 2015 data is from the Retirement Fund Financial Statements for each of the Retirement Funds for the fiscal years 2011 through 2017. Table may not add due to rounding.

Does not include liability related to other post-employment benefits. See "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS" below.

The actuarial value is determined by application of the Asset Smoothing Method as discussed in "–Actuarial Methods – Actuarial Value of Assets" above.

For purposes of this column, "Actuarial" refers to the fact that the calculation was made using the Actuarial Value of Assets.

For purposes of this column, "Fair Value" refers to the fact that the calculation was made using the fair value of Net Assets.

A variety of factors impact the Retirement Funds' UAAL and Funded Ratio. A lower return on investment than that assumed by the Retirement Funds and insufficient contributions when compared to the Normal Cost plus interest will each cause an increase in the UAAL and a decrease in the Funded Ratio. Conversely, higher returns on investment than assumed and contributions in excess of Normal Cost plus interest will decrease the UAAL and increase the Funded Ratio. In addition, legislative amendments, changes in actuarial assumptions, including, specifically, a change in the investment rate of return assumption, and certain other factors (including, but not limited to, higher or lower incidences of retirement, disability, in-service mortality, retiree mortality or terminations than assumed) will have an impact on the UAAL and the Funded Ratio.

### Net Pension Liability and Discount Rate

As described in “*— Actuarial Valuation – New GASB Standards*” above, the New GASB Standards require the calculation of the Net Pension Liability, which is the difference between the Total Pension Liability and the Fiduciary Net Position. Furthermore, the Discount Rate is the blended rate at which the actuaries of the Retirement Funds discount projected benefit payments to their actuarial present values. The following tables present information on the Net Pension Liability and the components thereof, the Discount Rate and the sensitivity of the Net Pension Liability to changes in the Discount Rate.

**TABLE 11 – NET PENSION LIABILITY**  
(**\$ IN THOUSANDS**)

	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a Percentage of Total Pension Liability</u>
<b>MEABF</b>				
2014	\$ 12,307,094	\$ 5,179,485	\$ 7,127,609	42.1%
2015	23,358,870	4,741,427	18,617,443	20.3%
2016	23,291,271	4,436,227	18,855,044	19.0%
2017	16,282,396	4,554,018	11,728,378	28.0%
<b>LABF</b>				
2014	\$ 2,162,905	\$1,388,095	\$ 774,810	64.2%
2015	3,712,615	1,238,657	2,473,958	33.4%
2016	3,693,645	1,167,740	2,525,905	31.6%
2017	2,630,107	1,267,554	1,362,553	48.2%
<b>PABF</b>				
2014	\$ 11,773,430	\$ 3,062,014	\$ 8,711,416	26.0%
2015	12,032,733	3,058,949	8,973,784	25.4%
2016	13,113,091	2,865,019	10,248,072	21.8%
2017	13,454,462	3,122,066	10,332,396	23.2%
<b>FABF</b>				
2014	\$ 4,512,760	\$ 1,036,008	\$ 3,476,752	23.0%
2015	4,826,084	1,045,101	3,780,983	21.7%
2016	5,149,258	1,019,014	4,130,244	19.8%
2017	5,746,150	1,126,153	4,619,997	19.6%
<b>Total</b>				
2014	\$ 30,756,189	\$10,665,602	\$20,090,587	34.7%
2015	43,930,302	10,084,134	33,846,168	23.0%
2016	45,247,265	9,488,000	35,759,265	21.0%
2017	38,113,115	10,069,791	28,043,324	26.4%

Source: City CAFR.

**TABLE 12 – SENSITIVITY OF NET PENSION LIABILITY TO CHANGES  
IN THE DISCOUNT RATE<sup>(1)</sup>**

<b>Fiscal Year 2017</b>			
	<b>1% Decrease</b>	<b>Current</b>	<b>1% Increase</b>
<b>MEABF</b>			
Discount Rate	6.00%	7.00%	8.00%
Net Pension Liability	\$13,807,800	\$11,728,378	\$10,006,090
<b>LABF</b>			
Discount Rate	6.07%	7.07%	8.07%
Net Pension Liability	\$ 1,680,428	\$ 1,362,553	\$ 1,096,678
<b>PABF</b>			
Discount Rate	6.00%	7.00%	8.00%
Net Pension Liability	\$11,944,827	\$10,332,396	\$ 8,978,202
<b>FABF</b>			
Discount Rate	6.23%	7.23%	8.23%
Net Pension Liability	\$ 5,303,879	\$ 4,619,997	\$ 4,046,477

Source: The Actuarial Valuations of the Retirement Funds for the fiscal year ended December 31, 2017.

(1) In thousands.

### **Projection of Funded Status**

The following projections (collectively, the “*Projections*”) are based upon numerous variables that are subject to change. The Projections are provided to indicate expected trends in the future funded status of the Retirement Funds. The Projections are forward-looking statements regarding future events based on the current provisions of the Pension Code, the Retirement Funds’ actuarial assumptions and assumptions made regarding such future events, including the assumption that all projected contributions to the Retirement Funds are made as required. No assurance can be given that these assumptions will be realized or that actual events will not cause material changes to the data presented in this subsection.

The Projections reflect the current provisions of the Pension Code and are based on data as of December 31, 2017. The Projections provided in this section with respect to MEABF combine pension and certain post-employment healthcare benefits liabilities together in a single projection, whereas the projections with respect to the other Retirement Funds exclude such liabilities. Therefore, with respect to MEABF, such projections overstate the Actuarial Accrued Liability with respect to pension benefits by the amount of such liability. In addition, the City believes that such liability may be reduced based upon the outcome of the Lawsuit (as hereinafter defined). See “**OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS – City Funding of Healthcare Benefits**” herein.

Furthermore, the Projections do not take into account the execution of the Potential Pension Bond Transactions. See “*– Potential Pension Bond Transactions*” below. If the bonds contemplated by the Potential Pension Bond Transactions are issued, the City expects that the Projections will change as the net proceeds of such bonds are expected to be deposited with the Retirement Funds and become assets of the Retirement Funds, which would, when considered independently of other factors, have the effect of increasing the Funded Ratio and decreasing the UAAL.

**TABLE 13 – PROJECTION OF FUTURE FUNDING STATUS – MEABF<sup>(1)</sup>**

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAI.) (a-b)	Market Funded Ratio (b/a)	Employer Contribution <sup>(2)</sup>
2018	\$16,688,126	\$4,386,200	\$12,301,926	26.3%	\$266,000
2019	17,086,045	4,251,290	12,834,755	24.9	344,000
2020	17,470,534	4,147,129	13,323,405	23.7	421,000
2021	17,839,320	4,073,436	13,765,884	22.8	499,000
2022	18,190,271	4,231,677	13,958,594	23.3	576,000
2023	18,525,838	4,380,524	14,145,314	23.6	853,487
2024	18,844,529	4,519,223	14,325,306	24.0	870,987
2025	19,143,909	4,645,762	14,498,147	24.3	888,880
2026	19,422,750	4,759,670	14,663,080	24.5	906,663
2027	19,678,942	4,859,664	14,819,278	24.7	924,691
2028	19,912,074	4,946,347	14,965,727	24.8	942,994
2029	20,121,661	5,020,497	15,101,164	25.0	961,686
2030	20,305,988	5,081,525	15,224,463	25.0	981,093
2031	20,464,602	5,130,277	15,334,325	25.1	1,000,843
2032	20,597,852	5,168,700	15,429,152	25.1	1,021,074
2033	20,707,360	5,200,614	15,506,746	25.1	1,042,059
2034	20,793,078	5,228,253	15,564,825	25.1	1,064,341
2035	20,855,635	5,253,993	15,601,642	25.2	1,087,908
2036	20,896,841	5,282,002	15,614,839	25.3	1,111,906
2037	20,917,888	5,316,120	15,601,768	25.4	1,136,849
2038	20,933,654	5,374,053	15,559,601	25.7	1,162,939
2039	20,934,371	5,449,224	15,485,147	26.0	1,190,140
2040	20,921,605	5,546,102	15,375,503	26.5	1,218,763
2041	20,898,175	5,670,904	15,227,271	27.1	1,248,135
2042	20,867,270	5,830,747	15,036,523	27.9	1,278,569
2043	20,832,679	6,033,599	14,799,080	29.0	1,310,474
2044	20,795,354	6,284,866	14,510,488	30.2	1,343,775
2045	20,757,413	6,590,478	14,166,935	31.7	1,378,554
2046	20,720,583	6,956,816	13,763,767	33.6	1,413,680
2047	20,687,197	7,391,241	13,295,956	35.7	1,449,740
2048	20,659,088	7,901,104	12,757,984	38.2	1,486,803
2049	20,634,851	8,490,731	12,144,120	41.1	1,525,013
2050	20,615,780	9,166,952	11,448,828	44.5	1,564,282
2051	20,602,262	9,936,578	10,665,684	48.2	1,603,925
2052	20,596,114	10,808,328	9,787,786	52.5	1,644,426
2053	20,598,316	11,790,940	8,807,376	57.2	1,685,826
2054	20,605,107	12,888,782	7,716,325	62.6	1,728,484
2055	20,618,104	14,111,369	6,506,735	68.4	1,772,263

Source: The Actuarial Valuation of MEABF as of December 31, 2017.

Note: Pursuant to the provisions of P.L. 100-23, the City projects that MEABF will reach a funded ratio of 90% by the end of the calendar year ended 2058.

Note: This Table includes OPEB liabilities together in a single projection, therefore, such projections overstate the Actuarial Accrued Liability with respect to pension benefits by the amount of such OPEB liability. In addition, the City believes that the liability related to OPEB may be reduced based upon the outcome of the Lawsuit. See “OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS – City Funding of Healthcare Benefits” herein.

(1) In thousands of dollars. Projections calculated on a cash basis.

(2) Represents contributions expected to be made by the City during the fiscal year pursuant to the Pension Code.

**TABLE 14 – PROJECTION OF FUTURE FUNDING STATUS – LABF<sup>(1)</sup>**

<b>Fiscal Year</b>	<b>Actuarial Accrued Liability (a)</b>	<b>Market Assets (b)</b>	<b>Market</b>		<b>Market Funded Ratio (b/a)</b>	<b>Employer Contribution<sup>(2)</sup></b>
			<b>Unfunded Actuarial Liabilities (UAAL) (a-b)</b>	<b>Accrued Liabilities (UAAL) (a-b)</b>		
2018	\$2,635,432	\$1,253,044	\$1,382,388		47.5%	\$35,457
2019	2,690,443	1,243,721	1,446,722		46.2	48,000
2020	2,743,741	1,240,063	1,503,678		45.2	60,000
2021	2,795,001	1,242,273	1,552,728		44.4	72,000
2022	2,844,256	1,271,697	1,572,559		44.7	84,000
2023	2,891,201	1,298,851	1,592,350		44.9	116,744
2024	2,931,152	1,323,681	1,607,471		45.2	118,520
2025	2,975,777	1,346,130	1,629,647		45.2	120,292
2026	3,012,697	1,364,903	1,647,794		45.3	122,309
2027	3,045,259	1,382,563	1,662,696		45.4	124,286
2028	3,074,062	1,396,927	1,677,135		45.4	126,390
2029	3,098,233	1,408,253	1,689,980		45.5	128,612
2030	3,117,507	1,416,449	1,701,058		45.4	130,837
2031	3,132,239	1,422,141	1,710,098		45.4	133,118
2032	3,142,593	1,425,495	1,717,098		45.4	135,598
2033	3,148,477	1,426,572	1,721,905		45.3	137,901
2034	3,150,405	1,426,079	1,724,326		45.3	140,217
2035	3,149,117	1,424,987	1,724,130		45.3	142,613
2036	3,145,121	1,423,935	1,721,186		45.3	145,141
2037	3,138,975	1,423,721	1,715,254		45.4	147,615
2038	3,130,983	1,424,757	1,706,226		45.5	150,181
2039	3,121,412	1,427,546	1,693,866		45.7	152,619
2040	3,111,159	1,433,270	1,677,889		46.1	155,082
2041	3,101,356	1,443,364	1,657,992		46.5	157,664
2042	3,092,704	1,458,743	1,633,961		47.2	160,360
2043	3,085,757	1,480,289	1,605,468		48.0	163,003
2044	3,081,116	1,505,931	1,575,185		48.9	165,703
2045	3,078,880	1,545,040	1,533,840		50.2	168,423
2046	3,079,446	1,589,530	1,489,916		51.6	171,031
2047	3,083,321	1,643,297	1,440,024		53.3	173,846
2048	3,090,738	1,707,043	1,383,695		55.2	176,662
2049	3,101,993	1,781,572	1,320,421		57.4	179,536
2050	3,117,045	1,867,374	1,249,671		59.9	182,477
2051	3,135,334	1,964,400	1,170,934		62.7	185,445
2052	3,156,585	2,073,086	1,083,499		65.7	188,378
2053	3,180,758	2,194,024	986,734		69.0	191,518
2054	3,207,791	2,327,904	879,887		72.6	194,669
2055	3,237,559	2,475,420	762,139		76.5	197,942

Source: The Actuarial Valuation of LABF, as of December 31, 2017.

Note: Pursuant to the provisions of P.A. 100-23, the City projects that LABF will reach a funded ratio of 90% by the end of the calendar year ended 2058.

(1) In thousands of dollars. Projections calculated on a cash basis.

(2) Represents contributions expected to be made by the City during the fiscal year pursuant to the Pension Code.

**TABLE 15 – PROJECTION OF FUTURE FUNDING STATUS – FABF<sup>(1)</sup>**

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAL) (a-b)	Market Funded Ratio (b/a)	Employer Contribution <sup>(2)</sup>
2018	\$5,758,168	\$1,145,784	\$4,612,384	19.9%	\$228,475
2019	5,928,002	1,159,380	4,768,622	19.6	235,000
2020	6,091,502	1,264,695	4,826,807	20.8	245,000
2021	6,248,988	1,365,342	4,883,646	21.8	354,636
2022	6,401,479	1,465,512	4,935,967	22.9	362,151
2023	6,549,980	1,568,391	4,981,589	23.9	370,964
2024	6,694,847	1,673,753	5,021,094	25.0	381,917
2025	6,832,691	1,780,585	5,052,106	26.1	392,574
2026	6,964,847	1,888,021	5,076,826	27.1	402,737
2027	7,090,893	1,997,222	5,093,671	28.2	412,342
2028	7,212,697	2,112,527	5,100,170	29.3	422,344
2029	7,330,600	2,234,243	5,096,357	30.5	434,582
2030	7,444,158	2,360,472	5,083,686	31.7	446,042
2031	7,552,620	2,489,038	5,063,582	33.0	455,033
2032	7,655,831	2,619,740	5,036,091	34.2	461,648
2033	7,753,976	2,753,328	5,000,648	35.5	467,562
2034	7,847,423	2,889,972	4,957,451	36.8	473,519
2035	7,937,025	3,030,773	4,906,252	38.2	478,632
2036	8,023,311	3,176,231	4,847,080	39.6	483,415
2037	8,106,916	3,327,758	4,779,158	41.0	487,544
2038	8,188,416	3,486,459	4,701,957	42.6	491,887
2039	8,268,477	3,653,766	4,614,711	44.2	496,145
2040	8,347,631	3,830,941	4,516,690	45.9	500,504
2041	8,425,988	4,018,854	4,407,134	47.7	504,911
2042	8,503,694	4,218,693	4,285,001	49.6	509,328
2043	8,580,910	4,431,652	4,149,258	51.6	514,014
2044	8,657,682	4,659,016	3,998,666	53.8	518,884
2045	8,734,056	4,901,649	3,832,407	56.1	524,084
2046	8,810,246	5,161,095	3,649,151	58.6	529,123
2047	8,886,626	5,439,165	3,447,461	61.2	534,461
2048	8,963,929	5,738,177	3,225,752	64.0	540,149
2049	9,043,167	6,060,938	2,982,229	67.0	546,231
2050	9,125,211	6,410,107	2,715,104	70.2	552,781
2051	9,210,437	6,787,846	2,422,591	73.7	559,631
2052	9,299,213	7,196,363	2,102,850	77.4	566,622
2053	9,392,103	7,638,209	1,753,894	81.3	573,705
2054	9,489,797	8,116,220	1,373,577	85.5	580,876
2055	9,593,237	8,633,670	959,567	90.0	588,137

Source: The City based on data as of December 31, 2017.

Note: Pursuant to the FABF/PABF Funding Legislation, the City projects that FABF will reach a funded ratio of 90% by the end of the calendar year ended 2055.

(1) In thousands of dollars. Projections are calculated on an accrual basis. However, with respect to the Employer Contribution column, the City has presented the data based on the year the employer contribution is actually made, rather than the preceding budget year.

(2) Represents contributions expected to be made by the City during the fiscal year.

**TABLE 16 – PROJECTION OF FUTURE FUNDING STATUS - PABF<sup>(1)</sup>**

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAL) (a-b)	Market Funded Ratio (b/a)	Employer Contribution <sup>(2)</sup>
2018	\$13,488,350	\$3,205,491	\$10,282,859	23.8%	\$494,580
2019	13,883,984	3,295,966	10,588,018	23.7	557,000
2020	14,279,415	3,533,433	10,745,982	24.7	579,000
2021	14,672,985	3,774,483	10,898,502	25.7	749,033
2022	15,063,060	4,021,074	11,041,986	26.7	769,013
2023	15,448,013	4,272,144	11,175,869	27.7	789,384
2024	15,825,741	4,525,555	11,300,186	28.6	809,733
2025	16,193,334	4,779,077	11,414,257	29.5	829,208
2026	16,548,233	5,031,665	11,516,568	30.4	848,609
2027	16,888,319	5,282,225	11,606,094	31.3	868,441
2028	17,212,662	5,531,835	11,680,827	32.1	888,116
2029	17,521,709	5,782,129	11,739,580	33.0	908,841
2030	17,816,323	6,036,069	11,780,254	33.9	929,706
2031	18,097,483	6,297,390	11,800,093	34.8	951,807
2032	18,366,284	6,569,674	11,796,610	35.8	975,422
2033	18,623,321	6,855,812	11,767,509	36.8	1,000,337
2034	18,869,949	7,159,371	11,710,578	37.9	1,025,825
2035	19,108,063	7,482,510	11,625,553	39.2	1,051,673
2036	19,338,239	7,822,066	11,516,173	40.4	1,051,673
2037	19,561,758	8,178,318	11,383,440	41.8	1,075,374
2038	19,780,073	8,553,319	11,226,754	43.2	1,093,269
2039	19,994,226	8,949,600	11,044,626	44.8	1,107,776
2040	20,205,313	9,370,329	10,834,984	46.4	1,121,144
2041	20,414,932	9,820,025	10,594,907	48.1	1,134,193
2042	20,624,438	10,301,689	10,322,749	49.9	1,147,665
2043	20,834,709	10,818,617	10,016,092	51.9	1,162,195
2044	21,046,474	11,374,289	9,672,185	54.0	1,176,400
2045	21,259,827	11,972,039	9,287,788	56.3	1,190,886
2046	21,475,278	12,615,994	8,859,284	58.7	1,205,844
2047	21,693,201	13,310,023	8,383,178	61.4	1,221,599
2048	21,913,553	14,058,012	7,855,541	64.2	1,238,265
2049	22,135,935	14,863,459	7,272,476	67.1	1,255,528
2050	22,359,870	15,730,072	6,629,798	70.3	1,273,517
2051	22,585,629	16,662,670	5,922,959	73.8	1,291,946
2052	22,813,750	17,666,592	5,147,158	77.4	1,330,066
2053	23,045,039	18,747,805	4,297,234	81.4	1,349,672
2054	23,280,279	19,912,560	3,367,719	85.5	1,369,629
2055	23,520,127	21,167,449	2,352,678	90.0	1,389,898

Source: The Actuarial Valuation of PABF as of December 31, 2017.

Note: Pursuant to the FABF/PABF Funding Legislation, the City projects that PABF will reach a funded ratio of 90% by the end of the calendar year ended 2055.

(1) In thousands of dollars. Projections are calculated on an accrual basis. However, with respect to the Employer Contribution column, the City has presented the data based on the year the employer contribution is actually made, rather than the preceding budget year.

(2) Represents contributions expected to be made by the City during the fiscal year.

## **Enterprise Fund Allocation of Retirement Fund Costs**

The City allocates to its enterprise funds their share of the City's annual contribution to the Retirement Funds based upon the amount of services provided by City employees to the functions or enterprises related to or paid out of those funds. The enterprise funds account for their allocable share of the City's contributions to the Retirement Funds as operating and maintenance expenses. In addition, beginning in 2015, the financial statements of the enterprise funds include an allocation of the applicable Net Pension Liability to such enterprise funds as required by the New GASB Standards. The amounts allocable to the respective enterprise funds may be significant and may have a material effect on such financial statements. For Fiscal Year 2018, the City budgeted for the enterprise funds to reimburse the City approximately \$103,063,000, or 9 percent of the total appropriation, consisting of the allocable share of the City's pension contribution by the enterprise funds as follows: (i) from the Water Fund, \$32,135,000, (ii) from the Sewer Fund, \$12,747,000, (iii) from the Chicago Midway International Airport Fund, \$11,490,000, and (iv) from the Chicago O'Hare International Airport Fund, \$46,691,000. For Fiscal Year 2019, the City budgeted for the enterprise funds to reimburse the City approximately \$126,011,000, or 10 percent of the total appropriation, consisting of the allocable share of the City's pension contribution by the enterprise funds as follows: (i) from the Water Fund, \$40,075,000, (ii) from the Sewer Fund, \$15,838,000, (iii) from the Chicago Midway International Airport Fund, \$13,904,000, and (iv) from the Chicago O'Hare International Airport Fund, \$56,194,000.

The allocations described in this subsection are not required by statute but represent the City's current method of allocating its pension costs. The City may alter the manner in which it allocates its pension costs to these funds at any time.

## **Potential Pension Bond Transactions**

On December 12, 2018, the 2019 Fund Stabilization Bonds Ordinance was introduced at the City Council by the Mayor. The following discussion describes provisions of the 2019 Fund Stabilization Bonds Ordinance in the form as introduced at the City Council; however, no assurance can be given that the 2019 Fund Stabilization Bonds Ordinance will be adopted by the City Council or, if adopted, what form the adopted ordinance would take. Furthermore, no assurance can be given that the Potential Pension Bond Transactions contemplated by the 2019 Fund Stabilization Bonds Ordinance will be executed. The 2019 Fund Stabilization Bonds Ordinance would, among other things, authorize: (i) the creation by the City of a new special-purpose not-for-profit corporation which may be called the "Dedicated Tax Securitization Corporation" ("DTSC"); and (ii) the City to sell (if the City Council adopts a Subsequent Ordinance as described below) to the DTSC the City's right to receive Residual Sales Tax Revenues, along with the City's right to receive certain other State revenues (collectively, the "*Transferred Revenues*"). As contemplated in the 2019 Fund Stabilization Bonds Ordinance, and provided that the Subsequent Ordinance is adopted by the City Council, the DTSC would sell bonds (the "*DTSC Bonds*") in an aggregate principal amount not to exceed \$7,700,000,000 secured solely by the Transferred Revenues, and would transfer the DTSC Bond proceeds (along with the right to receive residual revenues under the indenture for the DTSC Bonds) to the City in return for the Transferred Revenues. The 2019 Fund Stabilization Bonds Ordinance would also authorize the City, subject to the adoption of a Subsequent Ordinance by the City Council, to issue bonds (the "*Excise Tax Bonds*") in an aggregate principal amount not to exceed \$2,300,000,000 and secured solely by the Excise Tax.

Under the 2019 Fund Stabilization Bonds Ordinance, no DTSC Bonds or Excise Tax Bonds may be issued or sold unless a subsequent ordinance authorizing the sale of such bonds (a "*Subsequent Ordinance*") has been adopted by the City Council. The 2019 Fund Stabilization Bonds Ordinance would further provide that the 2019 Fund Stabilization Bonds Ordinance would be repealed as of December 31, 2019 unless a Subsequent Ordinance has been adopted by the City Council prior to such date.

## OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS

### City Funding of Healthcare Benefits

In 1983, the Illinois General Assembly amended the Pension Code to require PABF and FABF to contract with one or more insurance carrier(s) to provide group health insurance for their retirees and to pay specified subsidies toward the premiums of such insurance for certain eligible retirees, as further described below. The 1983 amendments stated that such subsidies were to be paid from the City's property tax levies for PABF and FABF. In 1985, the Illinois General Assembly further amended the Pension Code to require MEABF and LABF to pay certain subsidies for their retirees' monthly premiums for health insurance (as further described below), with such subsidies being paid from the City's property tax levies for MEABF and LABF. In 1987, the City sued the Retirement Funds asserting, among other things, that the City was not obligated to provide healthcare benefits to retired City employees. At that time, the City was providing a self-insured health plan for its retirees. To avoid the risk and expense of protracted litigation, the City entered into a settlement agreement on August 23, 1989. Following the expiration of this settlement agreement, the City entered into a second settlement agreement in 1997 and, following the second settlement agreement's expiration, a third settlement agreement in 2003 (the "*2003 Settlement*"). Pursuant to the 2003 Settlement, the City, the Retirement Funds, and the retirees shared the costs of the City's self-insured retiree healthcare plan until the 2003 Settlement expired on December 31, 2013. In connection with the expiration of the 2003 Settlement, the City announced plans to: (i) offer a healthcare plan to City employees who retired before August 23, 1989 (the "*Pre-8/23/89 Group*"), and pay up to 55 percent of the cost of that plan for the lifetime of those retirees; and (ii) provide a modified healthcare plan to City employees who retired on or after August 23, 1989 and to phase out such healthcare plan entirely by the beginning of 2017. The City subsequently confirmed that the City will pay 55 percent of the cost of the plan that it provides to the Pre-8/23/1989 Group for the lifetime of those retirees.

As a result, at present, the City pays 55 percent of the cost of the plan that it provides to the Pre-8/23/1989 Group. Beyond that, neither the City nor the Retirement Funds have made payments related to retiree healthcare since December 31, 2016. The responsibility for making such payments for City employees hired prior to the execution of the 2003 Settlement and meeting certain eligibility requirements (the "*Pre- 2003 Hiree Group*") is presently the subject of a lawsuit, *Underwood v. City of Chicago* (the "*Lawsuit*"), as described in the following paragraphs.

On July 23, 2013, certain former and current City employees filed the Lawsuit against the City and the Trustees of each of the four Retirement Fund Boards, seeking to bring a class action on behalf of current and former City employees who previously contributed or now contribute to one of the four Retirement Funds. The complaint advanced State law claims, including an alleged violation of the Pension Clause, and federal law claims, which were dismissed by the federal district court in an opinion that was affirmed on appeal by the Seventh Circuit Court of Appeals. The Lawsuit was then remanded to state court, where the Illinois Appellate Court held, on appeal from a decision of the Circuit Court, that members of the Pre-2003 Hiree Group (but excluding the Pre-8/23/1989 Group) stated a claim under the Pension Clause for certain benefits provided under the 1983 and 1985 amendments to the Pension Code. The appellate court affirmed the dismissal of the plaintiffs' remaining state law claims.

Regarding the Pension Clause claim, the appellate court held that the Pension Clause protects the fixed-rate subsidies required by the 1983 and 1985 amendments to the Pension Code, not a particular level of medical care. The subsidies provided under the 1983 and 1985 amendments to the Pension Code are \$21 or \$55 per month for certain PABF and FABF retirees (depending on Medicare eligibility) and \$25 per month for certain eligible MEABF and LABF retirees (age 65 and older with at least 15 years of service). The Illinois Supreme Court denied review of the appellate court's decision, and the case was remanded to the Circuit Court to effectuate the appellate court's mandate. The issue of whether the Retirement Funds

or the City are obligated to make the subsidy payments to the members of the Pre-2003 Hiree Group has been a subject of litigation. On February 1, 2019, the Circuit Court held that the 1983 and 1985 amendments to the Pension Code require the Retirement Funds to pay the subsidies. The City has been defending and will continue to defend this matter vigorously. The City can give no assurance as to the ultimate outcome of the Lawsuit.

The benefits provided to retired City employees as described in this section are referred to as the “*Health Benefits*” (together with the CBA Special Benefits, the “*OPEB Benefits*”).

### **CBA Special Benefits**

Under the respective collective bargaining agreements (the “*CBAs*”) with the FOP and the International Association of Fire Fighters, which were most recently renegotiated in 2012, certain retired PABF and FABF participants who retire after attaining age 55 with the required years of service are eligible to enroll themselves and their dependents in the healthcare benefit program offered to actively employed members until the Medicare eligibility age (the “*CBA Special Benefits*”). These members do not contribute towards the cost of coverage for this plan, except that certain CBA retirees are now required to contribute two percent of their pension for health care coverage beginning at the end of 2017. Neither PABF nor FABF currently makes contributions for their members with respect to these benefits, although PABF contributed \$95 per month for its participating members prior to January 1, 2017. Moreover, although the CBAs have expired, the provisions of each prior CBA are being honored until a new CBA is signed. It is not known whether the CBA Special Benefits will be specifically eliminated, modified, or extended at this time.

### **City Funding of OPEB Benefits**

OPEB Benefits have been funded on a pay-as-you-go basis, which means no assets are accumulated to pay for the liabilities with respect to these benefits. For the Pre-8/23/89 Group, the City offers a healthcare plan to these members of the Retirement Funds, and pays 55 percent of the cost of this plan. For the Pre-2003 Hiree Group, the City has not made any payments with respect to OPEB Benefits for those members of the Retirement Funds since December 31, 2016, as described above. See Table 18 below for a schedule of historical contributions made by the City with respect to the OPEB Benefits.

The City’s contributions to the Retirement Funds are made in accordance with the Pension Code, as described under “PENSION BENEFITS PROVIDED BY THE CITY” herein. Tables 5 through 9 under “PENSION BENEFITS PROVIDED BY THE CITY” herein present the Retirement Funds’ statement of net assets, which incorporate the contributions described in this Section as part of the “Administration” line item, *provided, however*, that such tables include payments made prior to the phase-out of healthcare benefits for retirees other than the Pre-8/23/1989 Group on December 31, 2016, which payments may differ from payments which may be required following the resolution of the Lawsuit.

### **Actuarial Considerations**

#### *General*

The City has an Actuarial Valuation completed for its contributions toward the OPEB Benefits annually. The purpose and process behind an Actuarial Valuation are described above under “PENSION BENEFITS PROVIDED BY THE CITY—Actuarial Valuation.” In addition, the Retirement Funds produce an Actuarial Valuation for the liability of each Retirement Fund to its retirees for the Health Benefits.

Although these Actuarial Valuations all refer to the liability owed for the same benefits, the results of the Retirement Funds' Actuarial Valuations differ significantly from the City's Actuarial Valuation for two reasons. First, the City's Actuarial Valuation reflects the liabilities that the City has agreed to pay on behalf of the Pre-8/23/89 Group; further, since the Retirement Funds did not include the liabilities for the monthly subsidies for the Pre-2003 Hiree Group in their respective Actuarial Valuations (despite the fact that the 1983 and 1985 Pension Code amendments specify that the Retirement Funds are to make such payments), the City has included the liabilities for those monthly subsidies in its Actuarial Valuation ("83/85 Pension Code Monthly Subsidies"). Second, the Actuarial Valuations of the City and the Retirement Funds differ because the actuarial methods and assumptions used for each purpose vary.

This Section addresses the funded status of the City's obligation to make payments for the OPEB Benefits. For additional information on the amounts owed to members of the Retirement Funds for retiree healthcare benefits, see the Actuarial Valuations of the Retirement Funds, which are available as described in "PENSION BENEFITS PROVIDED BY THE CITY—*Source Information*" above, and Note 10 to the City CAFR for the fiscal year ended December 31, 2017, which is available on the City's website at [http://www.cityofchicago.org/city/en/depts/fin/supp\\_info/comprehensive\\_annualfinancialstatements.html](http://www.cityofchicago.org/city/en/depts/fin/supp_info/comprehensive_annualfinancialstatements.html); provided, however, that the contents of the City's website are not incorporated herein by such reference.

#### *Actuarial Valuations*

Separate actuarial valuations are prepared with respect to the Health Benefits and the CBA Special Benefits. The actuarial valuation for the Health Benefits includes: (i) lifetime benefits for the Pre-8/23/1989 Group and their dependents; (ii) lifetime fixed subsidy benefits for those members who are not members of the Pre-8/23/1989 Group but were hired prior to the execution of the 2003 Settlement (e.g., the 83/85 Pension Code Monthly Subsidies described above); and (iii) non-collectively bargained health benefits provided to duty disability participants under the active health plan payable to age 63/65. With respect to the CBA Special Benefits, the valuation includes liabilities as if the expiration of the CBAs was extended to December 31, 2019, meaning liabilities are included only for payments on behalf of early retired, already retired, and in pay status as of December 31, 2019.

The Actuarial Valuations utilize various actuarial methods and assumptions similar to those described in "PENSION BENEFITS PROVIDED BY THE CITY" above with respect to the Retirement Funds. The City does not use an Actuarial Method to calculate the Actuarial Value of Assets with respect to the OPEB Benefits because no assets are accumulated therein for payment of future benefits. As such, the Actuarial Value of Assets for the OPEB Benefits is always zero. Information regarding the specific actuarial methods and assumptions used in preparing the valuations for the OPEB Benefits are set forth in the City CAFR for the fiscal year ended December 31, 2017.

The City's 2012 Actuarial Valuation ("2012 *Actuarial Valuation*") amortizes the City's retiree healthcare UAAL over a closed 1-year period, in order to reflect the remainder of the 2003 Settlement period and the CBA Special Benefits that were set to expire in 2012 under the CBAs that were in place at that time. The use of a closed, 1-year period has the effect of increasing the Actuarially Required Contribution as compared to the typical 30-year open amortization period because (i) the period of time over which the UAAL will be amortized is shorter, and (ii) the amortization period is one year as opposed to repeating 30-year periods. The 2012 Actuarial Valuation employed the projected unit credit method (the "PUC Method") to allocate retiree healthcare obligations.

The City's Actuarial Valuations for the years 2013 through 2016 (collectively, the "2013-2016 *Actuarial Valuations*") amortize the City's retiree healthcare UAAL over a closed 10-year period. The use of a closed, 10-year period rather than a closed, 1-year period has the effect of decreasing the Actuarially Required Contribution because the period of time over which the UAAL will be amortized is longer. In

addition, the 2013-2016 Actuarial Valuations employed the EAN Method, rather than the PUC Method, to allocate the City's retiree healthcare obligations.

### Funded Status

The following tables provide information with respect to the funding progress with respect to retiree healthcare benefits as well as the City's contributions with respect to such benefits.

Table 17 summarizes current funding progress. The OPEB Benefits are funded on a pay-as-you-go basis, which means no assets are accumulated to pay for the liabilities of the OPEB Benefits. As such, the Funded Ratio with respect to the OPEB Benefits is perpetually zero.

**TABLE 17 – SCHEDULE OF FUNDING PROGRESS<sup>(1)</sup>**

Actuarial Valuation Date (Dec. 31)	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a Percentage of Payroll
2007	\$0	\$1,062,864	\$1,062,864	0%	\$2,562,007	41.5%
2008	0	787,395	787,395	0	2,475,107	31.8
2009	0	533,387	533,387	0	2,546,961	20.9
2010	0	390,611	390,611	0	2,475,000	15.8
2011	0	470,952	470,952	0	2,518,735	18.7
2012	0	997,281	997,281	0	2,385,198	41.8
2013	0	964,626	964,626	0	2,425,000	39.8
2014	0	780,637	780,637	0	2,487,787	31.4
2015	0	715,522	715,522	0	2,563,649	27.9
2016	0	843,375	843,375	0	2,672,662	31.6

Sources: City CAFRs for the fiscal years ending December 31, 2010-2017.

(1) In thousands of dollars.

Table 18 shows the net contributions made by the City with respect to retiree healthcare benefits described in this section in each of the last ten fiscal years.

**TABLE 18 – HISTORY OF CITY'S CONTRIBUTIONS<sup>(1)</sup>**

Actual City Contribution	
2008	\$ 97,968
2009	98,044
2010	107,431
2011	99,091
2012	115,961
2013	139,336
2014	128,061
2015	96,551
2016	89,671
2017	82,515

Sources: City CAFRs for the fiscal years ending 2008-2017.

(1) In thousands of dollars.

## **GENERAL OBLIGATION DEBT**

The City has issued, and may from time to time issue, debt and incur other obligations that are general obligations of the City, including commercial paper and borrowings under revolving lines of credit which comprise the City's short-term borrowing facilities (the "*Short-Term Borrowing Program*"), all of which are secured by the full faith and credit of the City.

### **Long-Term General Obligation Bonds**

A significant portion of the City's long-term general obligation bonds, including the 2019A Bonds, are backed by the full faith and credit of the City, and all taxable property within the City is subject to the levy of taxes, without regard to rate or amount, to pay the principal of and interest on such general obligation bonds. As described below, certain general obligation bonds of the City do not have a property tax levy in place for their repayment.

The City has three types of long-term general obligation bonds outstanding. For a significant portion of the City's long-term general obligation bonds (including the 2019A Bonds), an annual property tax levy has been established to pay debt service on such bonds ("*Tax Levy Bonds*"). For certain other long-term general obligation bonds issued by the City (which make up a small subset of the City's general obligation bonds), either (i) an annual property tax levy has been established but is annually abated if certain other specified revenues are available that year for payment of debt service ("*Alternate Revenue Bonds*"), or (ii) no annual property tax levy has been established for debt service and payments of debt service are appropriated from sources of revenue other than property taxes ("*Pledge Bonds*"). Alternate Revenue Bonds include the City's General Obligation Bonds (Modern Schools Across Chicago Program), Series 2007B, 2007G, 2007K, 2010A and 2010B, and General Obligation Bonds (Emergency Telephone System), Series 1999 and Series 2004. Pledge Bonds consist of the MRL Note. All other long-term general obligation bonds of the City are Tax Levy Bonds.

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Following are selected debt statistics regarding the City's long-term general obligation bonds from 2008 through 2017 presented in the City CAFR for 2017.

**LONG-TERM GENERAL OBLIGATION SELECTED DEBT STATISTICS**  
**2008 – 2017**

<b>Year</b>	<b>Aggregate Debt (\$ in thousands)<sup>(1)</sup></b>	<b>Total Est. Fair Cash Value<sup>(2)</sup> (\$ in thousands)</b>	<b>Ratio of Debt to Fair Cash Value<sup>(2)</sup></b>	<b>Per Capita<sup>(3)</sup></b>
2008	\$6,126,295	\$310,888,609	2.0%	\$2,115.42
2009	6,866,270	280,288,730	2.4%	2,370.94
2010	7,328,452	231,986,397	3.2%	2,718.67
2011	7,628,222	222,856,064	3.4%	2,829.88
2012	7,939,682	206,915,723	3.8%	2,945.43
2013	7,670,298	236,695,475	3.2%	2,845.49
2014	8,339,626	255,639,792	3.3%	3,093.79
2015	9,041,892	278,027,604	3.3%	3,354.32
2016	8,943,914	293,121,793	3.2%	3,317.97
2017	9,609,625	—	3.1%	3,564.93

<sup>(1)</sup> Source: City of Chicago, Department of Finance.

<sup>(2)</sup> Source: The Civic Federation. Excludes railroad property, pollution control facilities and the portion of the City in DuPage County. Certain information for 2017 was not available from the Cook County Clerk's Office at time of publication. The ratio of debt to fair cash value for 2017 is based on 2016 estimated fair cash value.

<sup>(3)</sup> Population source: U.S. Census Bureau. From 2008 through 2009, per capita calculation is based on the 2000 population of 2,896,016. From 2010 through 2017, per capita calculation is based on the 2010 population of 2,695,598.

The City's long-term general obligation debt service schedule for 2019 to 2043 is set forth in the table on the following page.

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**LONG-TERM GENERAL OBLIGATION BONDS**  
**DEBT SERVICE SCHEDULE<sup>(1)(2)</sup>**  
As of March 26, 2019, including the 2019A Bonds

Year	The 2019A Bonds		Capitalized Interest	Principal	Interest <sup>(3)</sup>	Capitalized Interest	Principal	Interest <sup>(3)</sup>	Alternate Revenue Bonds		Principal	Interest	Pledge Bonds	Principal	Interest	General Obligation Total
	Principal	Interest							Tax Levy Bonds	Interest <sup>(3)</sup>						
2019	\$ 27,312,037	(\$27,312,037)	\$ 112,558,700	\$ 357,303,581	\$ 23,698,850	\$ 40,050,000	\$11,236,975	\$13,236,364	\$2,165,962	\$ 165,845,063	\$ 347,307,667	\$ 51,152,731				
2020	37,671,775	149,761,918	423,942,599	416,673,536	45,145,000	9,154,448	13,236,364	1,996,394	13,236,364	1,996,394	208,143,282	472,765,217	68,908,498			
2021	37,671,775	203,984,240	412,838,348	412,838,348	38,850,000	6,837,601	13,236,364	1,526,180	13,236,364	1,526,180	256,070,603	462,709,091	718,779,694			
2022	37,671,775	202,903,400	412,838,348	42,500,000	4,779,266	13,236,364	1,056,289	1,056,289	13,236,364	1,056,289	258,639,763	456,345,678	714,985,441			
2023	37,671,775	209,073,320	403,882,714	403,882,714	21,185,000	2,539,898	13,236,364	586,398	13,236,364	586,398	243,494,683	444,680,785	688,175,469			
2024	37,671,775	237,682,012	394,006,968	383,067,570	14,695,000	1,487,702	6,618,182	1,168,31	238,995,194	261,678,971	433,283,275	421,487,032	682,166,003			
2025	37,671,775	383,067,570	255,868,971	254,641,163	6,470,000	452,162	675,000	120,154	255,974,720	282,181,163	409,360,969	691,542,131	684,465,937			
2026	21,070,000	371,237,031	371,237,031	36,618,275	352,752,789	346,298,430	715,000	83,947	304,019,806	364,082,258	353,034,515	381,496,152	685,579,958			
2027	30,090,000	36,618,275	265,209,720	352,752,789	675,000	45,594	850,000	45,594	364,082,258	349,985,325	334,782,520	349,985,325	684,767,845			
2028	15,725,000	35,111,775	332,184,515	329,709,139	323,052,520	315,637,800	315,637,800	315,637,800	329,709,139	329,709,139	376,563,596	330,397,761	706,961,357			
2029	34,327,525	332,184,515	323,052,520	323,052,520	376,563,596	296,656,736	296,656,736	296,656,736	323,052,520	323,052,520	292,041,694	713,600,455	687,621,438			
2030	11,750,000	34,327,525	33,741,025	33,741,025	326,390,669	258,300,669	258,300,669	258,300,669	33,741,025	33,741,025	421,558,762	267,805,244	687,621,438			
2031	33,741,025	33,741,025	33,741,025	33,741,025	419,816,194	234,064,219	234,064,219	234,064,219	33,741,025	33,741,025	419,816,194	243,975,345	651,842,722			
2032	33,741,025	33,741,025	33,741,025	33,741,025	357,367,377	210,234,320	189,021,916	189,021,916	319,777,607	519,777,607	552,091,159	219,985,441	739,763,048			
2033	50,500,000	33,741,025	30,963,525	30,963,525	30,963,525	159,475,769	126,948,531	126,948,531	387,372,925	387,372,925	157,912,056	190,439,294	744,530,853			
2034	50,500,000	33,741,025	30,963,525	30,963,525	30,963,525	103,999,311	236,976,380	236,976,380	231,355,000	231,355,000	283,876,380	134,962,836	545,284,981			
2035	35,385,000	28,618,525	25,634,775	25,634,775	25,634,775	59,833,887	59,833,887	59,833,887	291,030,000	291,030,000	283,876,380	88,472,412	379,502,412			
2040	37,210,000	23,865,525	23,865,525	23,865,525	23,865,525	45,737,282	288,470,000	288,470,000	308,130,000	308,130,000	325,680,000	53,818,518	379,498,518			
2041	72,995,000	22,005,025	101,745,000	101,745,000	101,745,000	13,254,033	18,355,275	18,355,275	107,400,000	107,400,000	174,740,000	35,259,058	206,999,058			
2042	76,645,000	14,523,025	14,523,025	14,523,025	14,523,025	6,829,854	6,829,854	6,829,854	108,170,000	108,170,000	25,183,129	210,000,129	61,833,025			
2043	47,310,000	11,920,975	9,175,650	9,175,650	9,175,650	6,279,350	3,223,825	3,223,825	56,200,000	56,200,000	55,555,000	9,175,650	61,835,650			
2044	49,915,000	11,920,975	52,660,000	52,660,000	52,660,000	6,279,350	3,223,825	3,223,825	56,200,000	56,200,000	58,615,000	3,223,825	61,834,350			
2045	52,660,000	9,175,650	58,615,000	58,615,000	58,615,000	\$853,821,711	(\$27,312,037)	\$2,108,509,684	\$6,241,700,025	(\$23,698,850)	\$216,945,000	\$27,485,433	\$22,300,000	\$27,488,054	\$8,120,234,684	\$15,205,972,020
Total						\$821,980,000										\$15,205,972,020

<sup>(1)</sup> Principal and interest (including the amount of interest that has accrued on capital appreciation bonds) for each year includes amounts payable on the City's general obligation bonds and notes on July 1 of that year and January 1 of the following year, except that each year includes principal and interest payable on the General Obligation Bonds Series 2007B, G and K, (Modern Schools Across Chicago Program), and the General Obligation Bonds, Series 2010A (Modern Schools Across Chicago Program) (Build America Bonds Series 2010B (Modern Schools Across Chicago Program)) (Build America Bonds-Direct Payment) on June 1 and December 1 of that year. In addition, principal on the MRL Note is payable each June 30 and interest is payable on each March 31, June 30, September 30 and December 31.

<sup>(2)</sup> Excludes debt service on the Short-Term Borrowing Program

<sup>(3)</sup> Interest for each year includes the full amount of the interest payable on the General Obligation Bonds, Taxable Project Series 2009C (Build America Bonds-Direct Payment), the General Obligation Bonds, Taxable Project Series 2009D (Recovery Zone Economic Development Bonds-Direct Payment), the General Obligation Bonds, Taxable Project Series 2010B (Modern Schools Across Chicago Program (Build America Bonds-Direct Payment)) without adjustment for federal subsidy payments to be received by the City Note May not total due to rounding

## **Short-Term Borrowing Program**

Under its Short-Term Borrowing Program, the City may issue general obligation commercial paper notes and borrow under general obligation lines of credit which are general obligations of the City but do not have a specific property tax levy in place for their repayment. The Short-Term Borrowing Program is used by the City for working capital in anticipation of receipt of other revenue, to fund capital projects, debt refinancing or restructuring and to pay non-capital expenditures, such as settlements and judgments or retroactive payment of employment salaries and wages.

The Authorizing Ordinance for the Short-Term Borrowing Program (the “*Authorizing Ordinance*”) allows for a maximum outstanding amount of general obligation commercial paper notes and/or general obligation lines of credit in the aggregate principal amount of \$1.0 billion, (the “*Authorized Debt*”). The City has sized its borrowing capacity for interim funding in anticipation of receiving revenues or issuing long-term general obligation bonds and to cover General Fund operating expenses.

Following adoption of the Authorizing Ordinance in 2002, the City has issued four series of commercial paper notes under the Short-Term Borrowing Program, designated Commercial Paper Notes, 2002 Program Series A, Series B, Series C, and Series D and such notes are no longer outstanding. In 2018, the City executed trust indentures and obtained letters of credit for two series of commercial paper notes (the “*Notes*”) under the Short-Term Borrowing Program, designated as the Commercial Paper Notes, 2002 Program, Series E and Series F, each authorized in the aggregate principal amount of \$200,000,000 per series. In January 2019, the City issued its Commercial Paper Notes, 2002 Program, Series E, in the aggregate principal amount of \$150,230,000. In addition, from time to time, the City has authorized lines of credit as a part of its Short-Term Borrowing Program. On September 24, 2015, the City entered into a Revolving Line of Credit Agreement (the “*Line of Credit*”) among the City and JPMorgan Chase Bank, National Association; Bank of China, Chicago Branch; and BMO Harris Bank, N.A. The Line of Credit initially provided the City with borrowing capacity of up to \$750 million (which was later increased to \$900 million), allocated *pro rata* among the participating lenders. On November 4, 2016, the City decreased the borrowing capacity under the Line of Credit to a maximum principal amount of \$510 million. Currently, the outstanding balance for the Line of Credit is \$78,509,000.

The following table reflects the “Total Available Principal Amount” of borrowing available to the City under the lines of credit and commercial paper notes implemented by the City under the Short-Term Borrowing Program for the years 2010 through March 1, 2019. The table shows the City’s lowest and highest outstanding balances of such borrowing by the City for the period shown.

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**SHORT-TERM BORROWINGS 2010 – 2019**  
 (\$ in thousands)

<b>Year</b>	<b>Lowest Outstanding Principal Amount</b>	<b>Highest Outstanding Principal Amount</b>	<b>Total Available Principal Amount</b>
2010	\$ 27,448	\$ 198,101	\$ 200,000
2011	30,092	198,112	200,000
2012	32,676	166,513	300,000
2013	72,517	415,255	500,000
2014	77,294	415,294	900,000
2015 <sup>(1)</sup>	263,174	835,097	1,000,000
2015 <sup>(2)</sup>	93,837	239,131	750,000
2016 <sup>(3)</sup>	7,118	436,126	900,000
2016 <sup>(4)</sup>	7,118	124,263	510,000
2017	0	124,263	510,000
2018	0	233,627	910,000
2019	228,739	383,857	910,000

Source: City of Chicago, Department of Finance.

<sup>(1)</sup> For the period January 1, 2015 through September 23, 2015.

<sup>(2)</sup> For the period September 24, 2015 through December 31, 2015.

<sup>(3)</sup> For the period January 1, 2016 through November 3, 2016.

<sup>(4)</sup> For the period November 4, 2016 through December 31, 2016.

The maximum authorized aggregate principal amount of Authorized Debt under the Authorizing Ordinance is \$1 billion. After taking into account the maximum principal amount of the Line of Credit (\$510 million) and the maximum aggregate principal amount of the Notes (\$400 million), the remaining availability of Authorized Debt is \$90 million. Set forth in the following table is information about the credit components of the Short-Term Borrowing Program including the Notes. A long-term General Obligation Ad Valorem Tax Debt rating below what is shown in the “Ratings Thresholds” column would constitute an event of default under the corresponding agreement. A default would give the subject bank the right to terminate the facility and require the City to immediately pay all outstanding amounts. See “INVESTMENT CONSIDERATIONS — Effect of Future Ratings Downgrades.”

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**Short-Term Borrowing Program**  
(\$ in thousands)

<u>Facility</u>	<u>Series or Year</u>	<u>Borrowing Authority</u>	<u>Amount Outstanding (March 1, 2019)</u>	<u>Expiration or Termination</u>	<u>Bank</u>	<u>Ratings Thresholds</u>		
						<u>Kroll</u>	<u>Fitch</u>	<u>S&amp;P</u>
Commercial Paper <sup>(1)</sup>	2002E	\$ 200,000	\$ 150,230	5/31/2020	BANA	–	BBB-	BBB-
Commercial Paper <sup>(2)</sup>	2002F	200,000	-0-	5/31/2020	PNC	BBB-	BBB-	BBB-
Line of Credit <sup>(2)</sup>	2015	<u>510,000</u>	<u>78,509</u>	5/31/2020	JP Morgan / Bank of China / BMO Harris	BBB-	BBB-	BBB-
Total		<u><u>\$ 910,000</u></u>	<u><u>\$ 228,739</u></u>					

Source: City of Chicago, Department of Finance.

<sup>(1)</sup> A default is triggered by a rating downgrade below the ratings threshold by both of such rating agencies.

<sup>(2)</sup> A default is triggered by a rating downgrade below the ratings threshold by any two of such rating agencies.

### **MRL Financing LLC Promissory Note**

In 2009, the City purchased the former Michael Reese Hospital campus in connection with the City's bid for the 2016 Summer Olympics. The purchase was implemented by the MRL Note issued by the City to the seller. In 2017, the City completed a refinancing of the outstanding loan. The loan has a fixed interest rate of 3.55 percent with a maturity date of June 30, 2024. Principal payments will be made semi-annually with the first semi-annual principal payment on the refinanced loan due on June 30, 2019. As of December 31, 2018, the outstanding balance was \$72.8 million. The MRL Note is a general obligation of the City not supported by a property tax levy. The City has used available funds in the General Fund and proceeds of general obligation debt to make principal and interest payments. The City anticipates using such sources to make continued debt service payments due under the MRL Note until such time as the property is sold. When the property is sold, in whole or in part, the City currently expects to use such sale proceeds to pay the MRL Note.

### **INVESTMENT CONSIDERATIONS**

*The following discussion of investment considerations should be reviewed by prospective investors before purchasing the 2019A Bonds. Any one or more of the investment considerations discussed herein could lead to a decrease in the market value and the liquidity of the 2019A Bonds or, ultimately, a payment default on the 2019A Bonds. There can be no assurance that other factors not discussed herein will not become material in the future.*

#### **Effect of Future Ratings Downgrades**

The interest rate the City pays on new issuances of general obligation debt is highly dependent on the City's credit ratings, and downward changes in the City's ratings could result in significantly higher interest rates payable by the City on future bond issuances and other borrowings.

Ratings downgrades below certain threshold levels would qualify as an event of default under the current line of credit agreements and letter of credit reimbursement agreements under the City's Short-Term Borrowing Program. Such defaults could result in the City having to immediately repay outstanding borrowings under these agreements. In such event, the City's liquidity position could be adversely affected

as the City would likely be required to seek alternative funding arrangements from a smaller pool of credit providers willing to lend to the City. See “GENERAL OBLIGATION DEBT – Short-Term Borrowing Program.”

### **Unfunded Pensions**

The Retirement Funds have significant unfunded liabilities and low funding ratios. The City’s required contributions to the Retirement Funds are projected to increase in future years as set forth under “PENSION BENEFITS PROVIDED BY THE CITY – Projection of Funded Status” herein. Future required contribution increases beyond fiscal year 2018 may require the City to increase its revenues, reduce its expenditures, or some combination thereof, which may impact the services provided by the City or limit the City’s ability to generate additional revenues in the future. See “PENSION BENEFITS PROVIDED BY THE CITY – Net Pension Liability and Discount Rate” herein. The Potential Pension Bond Transactions, if undertaken by the City, would, when considered independently of other factors, significantly increase the Funded Ratios of the Retirement Funds while also having a significant impact on revenues available to the City. See “PENSION BENEFITS PROVIDED BY THE CITY – *Potential Pension Bond Transactions*” herein.

### **Overlapping Taxing Districts**

A number of overlapping taxing districts whose jurisdictional limits overlap with the City have the power to raise taxes, including property taxes. See “FINANCIAL DISCUSSION AND ANALYSIS—Property Taxes—*Overlapping Taxing Districts*.” The City does not control the amount or timing of the taxes levied by these overlapping taxing districts. Depending on the amount of such increase(s), an increase in the amount of taxes by these overlapping taxing districts could potentially be harmful to the City’s economy and/or may make it more difficult for the City to increase taxes, including property taxes, to pay for its unfunded pensions. The City can give no assurance as to whether, and to what extent, property taxes levied by overlapping taxing districts may increase in coming years.

### **Structural Deficit**

Over the past ten years, the City has experienced an imbalance of tax revenues relative to operating expenditures resulting in operating budget gaps. Since 2012, the City has reduced the General Fund budget gap each year through targeted cuts, revenue enhancements, and improved operating efficiencies. Recurring operating budget gaps and increases in the City’s debt burden could result in the need for new or enhanced revenue sources, including tax increases, or reduction of essential City services.

### **Increased Debt Service Levels**

Upon issuance of the 2019A Bonds, the City’s long-term general obligation debt will increase. Further increases in the City’s short-term and long-term general obligation debt and annual debt service could crowd out spending for other City services and/or require substantial increases in property taxes or other revenue sources. See “GENERAL OBLIGATION DEBT—Long-Term General Obligation Bonds” and “—Short-Term Borrowing Program.”

### **Reductions and Delays in Receipt of State Revenues**

State tax revenue received by the City includes the Residual Sales Tax Revenues (upon transfer to the City from the Corporation), income tax and PPRT. See “FINANCIAL DISCUSSION AND ANALYSIS – General Fund – *General Fund Revenue*.” From time to time, there have been proposals to close the State’s budget gap by, among other things, reducing the local government distributive share of the State’s income tax. If such a reduction were to become law, the City would lose significant income tax

receipts. This proposal, or any other that reduces the State taxes received by the City, would have an immediate and adverse effect on the City's budget.

In recent years, the State has delayed by months the distribution to local governments of their respective shares of State taxes due to the State's own budget problems, although such delays in distributions to the City did not affect the timely payment of debt service on the City's bonds or notes, or delay payments to vendors, service providers or other recipients of City funds.

If the period of any future delay in receipt of State taxes were to continue for an extended period, the City could be forced to delay payments to vendors, service providers or other recipients of City funds if other legally available funds were not on hand.

If the City proceeds with the Potential Pension Bond Transactions, the City would have to adjust its budget to reflect the use of Residual Sales Tax Revenues and other State revenues being used to pay debt service on such Potential Pension Bond Transactions.

### **Cap on Property Taxes**

The Illinois Property Tax Code limits, among other things, the amount of property tax that can be extended for non-home rule units of local government located in Cook County and five adjacent counties (the "*State Tax Cap*"). As a home rule unit of government, the City is not subject to the State Tax Cap. A number of bills have been introduced in the Illinois General Assembly to limit or freeze property taxes, including those imposed by home rule units of local government such as the City. The application of the State Tax Cap to the City or any other measure that would limit or freeze property taxes would require three-fifths vote of each house of the Illinois General Assembly. If the City were to become subject to a State-imposed property tax limitation restriction in the future similar to the State Tax Cap or any other restriction or freeze on property taxes, the City's ability to levy property taxes in amounts needed for its future funding needs may be adversely affected.

### **Adverse Change in Laws**

There are a variety of State and federal laws, regulations and constitutional provisions that apply to the City's ability to raise taxes, fund its pension obligations or to reorganize its debts. There is no assurance that there will not be any change in, interpretation of, or addition to such applicable laws, regulations and provisions. Any such change, interpretation or addition may have a material adverse effect, either directly or indirectly, on the City or the taxing authority of the City, which could materially adversely affect the City's operations or financial condition.

### **Bankruptcy**

Under federal law, municipalities, including the City, are ineligible for bankruptcy unless specifically authorized to be a debtor in bankruptcy by state law or by a governmental officer or organization empowered by state law to authorize such entity to be a debtor in a bankruptcy. State law does not currently permit municipalities, including the City, to be debtors in bankruptcy, and therefore municipalities, including the City, are currently ineligible for bankruptcy.

As with all State law, the current prohibition on municipal bankruptcies is subject to review or change by State government. From time to time, legislation has been introduced in the Illinois General Assembly which, if enacted, would permit Illinois municipalities to be debtors in bankruptcy. The City is unable to predict whether the Illinois General Assembly will adopt any such legislation or the form of such legislation if enacted.

In the event of a change in State law to provide that the City is eligible to be a debtor in bankruptcy, and if that authority were to be acted upon, there is no guarantee that the bankruptcy court would consider the 2019A Bondholders to have a secured claim under the Bankruptcy Code with respect to remittances of the Bond Property Tax Levy or other moneys in the Bond, Note Redemption and Interest Fund. The Bond, Note Redemption and Interest Fund is not held by the Trustee, and is not subject to a statutory lien in favor of the 2019A Bondholders. In addition, remittances of the Bond Property Tax Levy are not “special revenues” as defined in the Bankruptcy Code.

### **Uncertain Enforcement of Remedies**

The 2019A Bonds are direct and general obligations of the City and all taxable property in the City is subject to levy to pay the debt service on the 2019A Bonds. The 2019A Bonds are not secured by a statutory lien on the Bond, Note Redemption and Interest Fund, any real property in the City or any physical assets of the City. The maturity of the 2019A Bonds cannot be accelerated in the event that the City fails to pay any installment of interest on, or principal of, the 2019A Bonds when due.

The remedies available to 2019A Bondholders upon nonpayment of principal of or interest on the 2019A Bonds are uncertain and, in many respects, dependent upon discretionary judicial actions. See APPENDIX A—“SUMMARY OF THE INDENTURE—Default and Remedies.”

### ***Force Majeure* Events**

There are certain unanticipated events beyond the City’s control that could have a material adverse impact on the City’s operations and financial conditions if they were to occur. These events include fire, flood, earthquake, epidemic, adverse health conditions or other unavoidable casualties or acts of God, freight embargo, labor strikes or work stoppages, civil commotion, new acts of war or escalation of existing war conditions, sabotage, terrorism or enemy action, pollution, unknown subsurface or concealed conditions affecting the environment, and any similar causes. No assurance can be provided that such events will not occur, and, if any such events were to occur, no prediction can be provided as to the actual impact or severity of the impact on the City’s operations and financial condition.

### **Forward-Looking Statements**

This Official Statement contains certain statements relating to future results that are forward-looking statements. When used in this Official Statement, the words “estimate,” “intend,” “expect” and similar expressions identify forward-looking statements. Any forward-looking statement is subject to uncertainty and risks that could cause actual results to differ, possibly materially, from those contemplated in such forward-looking statements. Inevitably, some assumptions used to develop forward-looking statements will not be realized or unanticipated events and circumstances may occur. Therefore, 2019A Bondholders and potential investors should be aware that there are likely to be differences between forward-looking statements and actual results; those differences could be material. The City does not undertake any obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

### **LITIGATION**

There is no litigation pending in any court or, to the knowledge of the City, threatened, questioning the corporate existence of the City, or which would restrain or enjoin the issuance or delivery of the 2019A Bonds, or which concerns the proceedings of the City taken in connection with the 2019A Bonds or the City’s pledge of its full faith, credit and resources to the payment of the 2019A Bonds.

The City is a defendant in various pending and threatened individual and class action litigation relating principally to claims arising from contracts, personal injury, property damage, police conduct, discrimination, civil rights actions and other matters. The City believes that the ultimate resolution of these matters will not have a material adverse effect on the financial position of the City.

**Property Tax Rate Objections.** Each year, pursuant to the Property Tax Code, certain owners of property in the City file objections to portions of the City's property tax levy. The objections are filed in the Circuit Court of Cook County (the "*Circuit Court*"). All objections for tax years 2006 and before have been settled. Objections for tax years 2007 and following remain pending. The City is unable to predict the outcome of the pending objections.

**Retiree Healthcare Litigation.** See the description of Underwood v. City of Chicago in "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS – City Funding of Healthcare Benefits" above.

**Stop and Frisk Litigation.** On April 20, 2015, 32 individually named plaintiffs filed a putative class action in the federal district court, alleging that they were stopped and frisked by Chicago police officers without reasonable articulable suspicion and because of their race or national origin. The complaint seeks injunctive and declaratory relief as well as damages for the class members. The federal district court denied the City's motion to dismiss the claims. The City will continue to defend this matter vigorously.

## INDEPENDENT AUDITORS

The basic financial statements of the City as of and for the year ended December 31, 2017, included in APPENDIX C to this Official Statement, have been audited by Deloitte & Touche LLP, independent auditors, which included reference to other auditors, as stated in their report appearing herein at APPENDIX C.

## RATINGS

The 2019A Bonds are rated "BBB+" (stable outlook) by S&P, "BBB-" (stable outlook) by Fitch, and "A" (stable outlook) by Kroll.

A rating reflects only the view of the rating agency giving such rating. A rating is not a recommendation to buy, sell or hold securities, and may be subject to revision or withdrawal at any time. An explanation of the significance of such rating may be obtained from such organization. There is no assurance that any rating will continue for any given period of time or that any rating will not be revised downward or withdrawn entirely if, in the judgment of the rating agency, circumstances so warrant. Any such downward revision or withdrawal of a rating may have adverse consequences for the City or an adverse effect on the price at which the 2019A Bonds may be resold.

## FINANCIAL ADVISORS AND INDEPENDENT REGISTERED MUNICIPAL ADVISOR

The City has retained Columbia Capital Management LLC and Swap Financial Group to act as co-financial advisors (the "*Co-Financial Advisors*") in connection with the offering of the 2019A Bonds. The Co-Financial Advisors have provided advice on the plan of financing and structure of the 2019A Bonds and have reviewed certain legal documents, including this Official Statement, with respect to financial matters. The Co-Financial Advisors are not obligated to undertake, and have not undertaken to make, an independent verification of, or to assume responsibility for the accuracy, completeness, or fairness of the information contained in this Official Statement. Each of the Co-Financial Advisors is a "municipal advisor" as defined in Rule 15Ba1-1 of the Securities and Exchange Commission (the "*Commission*").

The City has retained Martin J. Luby LLC as its independent registered municipal advisor (the “*IRMA*”) pursuant to Rule 15Ba1-1-(d)(3)(vi) of the Commission to evaluate financing proposals and recommendations in connection with the City’s various bond issuance programs and other financing ideas being considered by the City; however, the *IRMA* will not advise on the investment of City funds held by the Office of the City Treasurer. The *IRMA*’s compensation is not dependent on the offering of the 2019A Bonds.

## **UNDERWRITING**

Barclays Capital Inc., as representative on behalf of itself and the other underwriters listed on the cover of this Official Statement (the “*Underwriters*”), has agreed, subject to certain conditions, to purchase the 2019A Bonds at a price equal to \$772,078,292.95 (which represents the aggregate principal amount of the 2019A Bonds plus original issue premium of \$55,023,924.10 less an Underwriters’ discount of \$4,925,631.15.

The obligation of the Underwriters to accept delivery of the 2019A Bonds is subject to various conditions set forth in a Bond Purchase Agreement dated March 26, 2019, between the Underwriters and the City. The Underwriters are obligated to purchase all of the 2019A Bonds if any of the 2019A Bonds are purchased.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage, and other financial and non-financial activities and services. Certain of the Underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the City and to persons and entities with relationships with the City, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates, officers, directors, and employees may purchase, sell, or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps, and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities, and/or instruments of the City (directly, as collateral securing other obligations, or otherwise) and/or persons and entities with relationships with the City. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas, and/or publish or express independent research views in respect of such assets, securities or instruments, and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities, and instruments.

## **TAX MATTERS**

In the opinion of Miller, Canfield, Paddock and Stone, P.L.C. and Zuber Lawler & Del Duca LLP, Co-Bond Counsel, under existing law, the interest on the 2019A Bonds is excludable from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax. Co-Bond Counsel will express no opinion regarding any other federal tax consequences arising with respect to the 2019A Bonds and the interest thereon. Interest on the 2019A Bonds is not exempt from present Illinois income taxes.

The opinion on federal tax matters is based on the accuracy of certain representations and certifications, and continuing compliance with certain covenants, of the City contained in the transcript of proceedings and which are intended to evidence and assure the foregoing, including that the 2019A Bonds are and will remain obligations the interest on which is excludable from gross income for federal income tax purposes. The City has covenanted to take the actions required of it for the interest on the 2019A Bonds to be and to remain excludable from gross income for federal income tax purposes, and not to take any

actions that would adversely affect that exclusion. Co-Bond Counsel's opinion assumes the accuracy of the City certifications and representations and the continuing compliance with the City's covenants. Noncompliance with these covenants by the City may cause the interest on the 2019A Bonds to be included in gross income for federal income tax purposes retroactively to the date of issuance of the 2019A Bonds. After the date of issuance of the 2019A Bonds, Co-Bond Counsel will not undertake to determine (or to so inform any person) whether any actions taken or not taken, or any events occurring or not occurring, or any other matters coming to Co-Bond Counsel's attention, may adversely affect the exclusion from gross income for federal income tax purposes of interest on the 2019A Bonds or the market prices of the 2019A Bonds. Investors should consult with their tax advisors as to the tax consequences of their acquisition, holding or disposition of the 2019A Bonds.

The opinion of Co-Bond Counsel is based on current legal authority and covers certain matters not directly addressed by such authority. It represents Co-Bond Counsel's legal judgment as to the excludability of interest on the 2019A Bonds from gross income for federal income tax purposes but is not a guarantee of that conclusion. The opinion is not binding on the Internal Revenue Service ("IRS") or any court. Co-Bond Counsel cannot give and has not given any opinion or assurance about the effect of future changes in the Code, the applicable regulations, the interpretations thereof or the enforcement thereof by the IRS, or changes as a result of pending or proposed federal tax legislation.

Ownership of the 2019A Bonds may result in collateral federal income tax consequences to certain taxpayers, including, without limitation, corporations subject to the branch profits tax, financial institutions, certain insurance companies, certain S corporations, individual recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred (or continued) indebtedness to purchase or carry the 2019A Bonds. Co-Bond Counsel will express no opinion regarding any such consequences.

#### **Amortizable 2019A Bond Premium**

For federal income tax purposes, the excess of the initial offering price to the public (excluding bond houses and brokers) at which a 2019A Bond is sold over the amount payable at maturity thereof constitutes for the original purchasers of such 2019A Bonds (collectively, the "Original Premium 2019A Bonds") an amortizable bond premium. 2019A Bonds other than Original Premium 2019A Bonds may also be subject to an amortizable bond premium determined generally with regard to the taxpayer's basis (for purposes of determining loss on a sale or exchange) and the amount payable on maturity or, in certain cases, on an earlier call date (such 2019A Bonds being referred to herein collectively with the Original Premium 2019A Bonds as the "Premium 2019A Bonds"). Such amortizable bond premium is not deductible from gross income. The amount of amortizable bond premium allocable to each taxable year is generally determined on the basis of the taxpayer's yield to maturity determined by using the taxpayer's basis (for purposes of determining loss on sale or exchange) of such Premium 2019A Bonds and compounding at the close of each six-month accrual period. The amount of amortizable bond premium allocable to each taxable year is deducted from the taxpayer's adjusted basis of such Premium 2019A Bonds to determine taxable gain upon disposition (including sale, redemption or payment at maturity) of such Premium 2019A Bonds.

All holders of the Premium 2019A Bonds should consult with their own tax advisors as to the amount and effect of the amortizable bond premium.

#### **Market Discount**

The "market discount rules" of the Code apply to the 2019A Bonds. Accordingly, holders acquiring their 2019A Bonds subsequent to the initial issuance of the 2019A Bonds will generally be required to treat market discount recognized under the provisions of the Code as ordinary taxable income (as opposed to

capital gain income). Holders should consult their own tax advisors regarding the application of the market discount provisions of the Code and the advisability of making any of the elections relating to market discount allowed by the Code.

### **Information Reporting and Backup Withholding**

Information reporting requirements apply to interest paid after March 31, 2007 on tax-exempt obligations, including the 2019A Bonds. In general, such requirements are satisfied if the interest recipient completes, and provides the payor with, a Form W-9, “Request for Taxpayer Identification Number and Certification,” or unless the recipient is one of a limited class of exempt recipients, including corporations. A recipient not otherwise exempt from information reporting who fails to satisfy the information reporting requirements will be subject to “backup withholding,” which means that the payor is required to deduct and withhold a tax from the interest payment, calculated in the manner set forth in the Code. For the foregoing purpose, a “payor” generally refers to the person or entity from whom a recipient receives its payments of interest or who collects such payments on behalf of the recipient.

If an owner purchasing the 2019A Bonds through a brokerage account has executed a Form W-9 in connection with the establishment of such account, no backup withholding should occur. In any event, backup withholding does not affect the excludability of the interest on the 2019A Bonds from gross income for federal income tax purposes. Any amounts withheld pursuant to backup withholding would be allowed as a refund or a credit against the owner’s federal income tax once the required information is furnished to the IRS.

### **Basis of Bond Counsel Opinions**

The respective opinions of Co-Bond Counsel to be delivered concurrently with the delivery of the 2019A Bonds and the descriptions of the tax law contained in this Official Statement are based upon statutes, judicial decisions, regulations, rulings and other official interpretations of law in existence on the date the 2019A Bonds are issued. There can be no assurance that such law or those interpretations will not be changed or that new provisions of law will not be enacted or promulgated at any time while the 2019A Bonds are outstanding in a manner that would adversely affect the market value or liquidity or the tax treatment of ownership of the 2019A Bonds. Co-Bond Counsel have not undertaken to provide advice with respect to such future changes.

In rendering their opinions, Co-Bond Counsel will receive and rely upon certifications and representations of facts, calculations, estimates and expectations furnished by the City and others which Co-Bond Counsel will not have verified independently.

### **IRS Audits**

Unless separately engaged, bond counsel is not obligated to defend the City in the event of an audit examination by the IRS. The IRS has a program to audit tax-exempt obligations to determine whether the interest thereon is includable in gross income for federal income tax purposes. If the IRS does audit the 2019A Bonds, under current IRS procedures, the IRS will treat the City as the taxpayer and the beneficial owners of the 2019A Bonds will have only limited rights, if any, to obtain and participate in judicial review of such audit.

## APPROVAL OF LEGAL MATTERS

Certain legal matters incident to the authorization, issuance and sale of the 2019A Bonds are subject to the approving legal opinions of Co-Bond Counsel, who have been retained by, and act as, Bond Counsel to the City. Except as noted below, Co-Bond Counsel have not been retained or consulted on disclosure matters and have not undertaken to review or verify the accuracy, completeness or sufficiency of this Official Statement or other offering material relating to the 2019A Bonds and assume no responsibility for the statements or information contained in or incorporated by reference in this Official Statement, except that Co-Bond Counsel have, at the request and for the benefit of the City, reviewed only those portions of the Official Statement involving the description of the 2019A Bonds, the security for the 2019A Bonds (excluding forecasts, projections, estimates or any other financial or economic information in connection therewith), the description of the Indenture, the description of the provisions of the Bond Ordinance and the description of the federal tax exemption of interest on the 2019A Bonds. This review was undertaken solely at the request of the City and did not include any obligation to establish or confirm other factual matters set forth herein.

Certain legal matters will be passed on for the City by (i) its Corporation Counsel, (ii) in connection with the preparation of this Official Statement, Cotillas and Associates, Chicago, Illinois Disclosure Counsel to the City, and (iii) in connection with certain pension matters described in this Official Statement, Chapman and Cutler LLP, Chicago, Illinois, Special Disclosure Counsel. Certain legal matters will be passed on for the Underwriters by Katten Muchin Rosenman LLP, Chicago, Illinois, Underwriters' Counsel.

## SECONDARY MARKET DISCLOSURE

The City will enter into a Continuing Disclosure Undertaking (the “*Undertaking*”) for the benefit of the beneficial owners of the 2019A Bonds to send certain information annually and to provide notice of certain events to the Municipal Securities Rulemaking Board (the “*MSRB*”) pursuant to the requirements of Section (b)(5) of Rule 15c2-12 (the “*Rule*”) adopted by the Commission under the Securities Exchange Act of 1934 (the “*Exchange Act*”). The MSRB has designated its Electronic Municipal Market Access system, known as EMMA, as the system to be used for continuing disclosures to investors. The information to be provided on an annual basis, the events that will be noticed on an occurrence basis and a summary of other terms of the Undertaking, including termination, amendment and remedies, are set forth below.

A failure by the City to comply with the Undertaking will not constitute a default under the 2019A Bonds, the Indenture, or the Bond Ordinance, and beneficial owners of the 2019A Bonds are limited to the remedies described in the Undertaking. See “—Consequences of Failure of the City to Provide Information” below, under this caption. A failure by the City to comply with the Undertaking must be reported in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the 2019A Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the 2019A Bonds and their market price.

The following is a brief summary of certain provisions of the Undertaking of the City and does not purport to be complete. The statements made under this caption are subject to the detailed provisions of the Undertaking, a copy of which is available upon request from the City.

### Annual Financial Information Disclosure

The City covenants that it will disseminate its Annual Financial Information and its Audited Financial Statements (as described below) to the MSRB, beginning in 2019. The City is required to deliver such information so that the MSRB receives the information by the dates specified in the Undertaking.

“*Annual Financial Information*” means information generally consistent with that contained in (i) the financial table “General Fund” under the caption “FINANCIAL DISCUSSION AND ANALYSIS—General Fund—*Selected Financial Information*;” (ii) the financial tables included under the caption “FINANCIAL DISCUSSION AND ANALYSIS—Property Taxes—*EAV and Property Taxes*,” and “—*Use of City Property Tax Levy*;” (iii) the financial tables included under the caption “GENERAL OBLIGATION DEBT” (except for the table “Short-Term Borrowings 2010-2019”); and (iv) Tables 1 through 10 included in “PENSION BENEFITS PROVIDED BY THE CITY” (said tables collectively referred to as the “*Third-Party Sourced Retirement Fund Tables*”). The information contained in the Third-Party Sourced Retirement Fund Tables is sourced from documents published by MEABF, PABF, FABF and LABF, and the City takes no responsibility for the accuracy and completeness of such information. If the information contained in the Third-Party Sourced Retirement Fund Tables is no longer publicly available or is not publicly available in the form, manner or time that the Annual Financial Information is required to be disseminated by the City, the City shall, as part of its Annual Financial Information for the year in which such a lack of availability arises, include a statement to that effect and to the effect that it will promptly file such information as it becomes available.

“*Audited Financial Statements*” means the audited basic financial statements of the City prepared in accordance with generally accepted accounting principles applicable to governmental units as in effect from time to time.

Annual Financial Information exclusive of Audited Financial Statements will be provided to the MSRB not more than 210 days after the last day of the City’s fiscal year, which currently is December 31. If Audited Financial Statements are not available when the Annual Financial Information is filed, unaudited financial statements will be included, and Audited Financial Statements will be filed within 30 days of availability to the City.

### **Reportable Events Disclosure**

The City covenants that it will disseminate in a timely manner, not in excess of ten business days, to the MSRB the disclosure of the occurrence of a Reportable Event (defined below). Certain Reportable Events are required to be disclosed only to the extent that such Reportable Event is material, as materiality is interpreted under the Exchange Act. The “*Reportable Events*,” certain of which may not be applicable to the 2019A Bonds, are:

- (a) principal and interest payment delinquencies;
- (b) non-payment related defaults, if material;
- (c) unscheduled draws on debt service reserves reflecting financial difficulties;
- (d) unscheduled draws on credit enhancements reflecting financial difficulties;
- (e) substitution of credit or liquidity providers, or their failure to perform;
- (f) 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 or determinations with respect to the tax status of the 2019A Bonds, or other material events affecting the tax status of the 2019A Bonds;
- (g) modifications to rights of security holders, if material;
- (h) bond calls, if material, and tender offers;
- (i) defeasances;
- (j) release, substitution or sale of property securing repayment of the securities, if material;

(k) rating changes;

(l) bankruptcy, insolvency, receivership or similar event of the City (considered to have occurred in the following instances: the appointment of a receiver, fiscal agent or similar officer for the City in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the City, or if the jurisdiction of the City has been assumed by leaving the City Council and the City's officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City);

(m) the consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of the assets of the City, 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;

(n) appointment of a successor or additional trustee or the change of name of a trustee, if material;

(o) incurrence of a financial obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the City, any of which affect security holders, if material; and

(p) a default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation, any of which reflect financial difficulties.

The term *financial obligation* as used in Reportable Events paragraphs (o) and (p), above, means: (i) a debt obligation, (ii) a derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation or, (iii) a guarantee of paragraph (i) or (ii). The term financial obligation shall not include municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

### **Consequences of Failure of the City to Provide Information**

The City shall give notice in a timely manner to the MSRB of any failure to provide disclosure of Annual Financial Information and Audited Financial Statements when the same are due under the Undertaking.

In the event of a failure of the City to comply with any provision of the Undertaking, the Beneficial Owner of any 2019A Bond may seek mandamus or specific performance by court order to cause the City to comply with its obligations under the Undertaking. The Undertaking provides that any court action must be initiated in the Circuit Court. A default under the Undertaking shall not be deemed a default under the 2019A Bonds, the Bond Ordinance, or the Indenture, and the sole remedy under the Undertaking in the event of any failure of the City to comply with the Undertaking shall be an action to compel performance.

### **Amendment; Waiver**

Notwithstanding any other provision of the Undertaking, the City may amend the Undertaking, and any provision of the Undertaking may be waived, if:

(a) (i) the amendment or the waiver is made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of the City or type of business conducted; (ii) the Undertaking, as amended, or the provision, as waived, would have complied with the requirements of the Rule at the time of the offering of the 2019A Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(iii) the amendment or waiver does not materially impair the interests of the Beneficial Owners of the 2019A Bonds, as determined by a party unaffiliated with the City (such as the Trustee or Co-Bond Counsel), or by approving vote of the Beneficial Owners of the 2019A Bonds pursuant to the terms of the Indenture at the time of the amendment; or

(b) the amendment or waiver is otherwise permitted by the Rule.

## **EMMA**

All documents submitted to the MSRB through EMMA pursuant to the Undertaking shall be in electronic format and accompanied by identifying information as prescribed by the MSRB, in accordance with the Rule. All documents submitted to the MSRB through EMMA will be word-searchable PDFs, configured to permit documents to be saved, viewed, printed and electronically retransmitted.

## **Termination of Undertaking**

The Undertaking shall be terminated if the City shall no longer have any legal liability for any obligation on or relating to repayment of the 2019A Bonds under the Bond Ordinance or the Indenture.

## **Additional Information**

Nothing in the Undertaking will be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in the Undertaking or any other means of communication, or including any other information in any Annual Financial Information or Audited Financial Statements or notice of occurrence of a Reportable Event, in addition to that which is required by the Undertaking. If the City chooses to include any information in any Annual Financial Information or Audited Financial Statements or notice of occurrence of a Reportable Event in addition to that which is specifically required by the Undertaking, the City shall have no obligation under the Undertaking to update such information or include it in any future Annual Financial Information or Audited Financial Statements or notice of occurrence of a Reportable Event.

## **Corrective Action Related to Certain Bond Disclosure Requirements**

The City failed to comply with certain continuing disclosure undertakings previously entered into by it pursuant to the Rule as described below. Such non-compliance may or may not be material.

Annual financial information and audited financial statements were not filed by the City in 2011 for the Fiscal Year ended December 31, 2010, and in 2012 for the Fiscal Year ended December 31, 2011, with respect to the City's Chicago O'Hare International Airport General Airport Third Lien Revenue and Revenue Refunding Bonds, Series 2010A through Series 2010F. Annual financial information and audited financial statements were not filed by the City in 2011 for the Fiscal Year ended December 31, 2010, and in 2012 for the Fiscal Year ended December 31, 2011, with respect to the City's Chicago O'Hare International Airport General Airport Passenger Facility Charge Revenue and Revenue Refunding Bonds, Series 2010A through Series 2010D. On October 12, 2016, the City filed with EMMA such annual financial information and audited financial statements with respect to such bonds.

Annual financial information and audited financial statements were not filed by the City in 2012 for the Fiscal Year ended December 31, 2011 with respect to the City's Chicago O'Hare International Airport General Airport Third Lien Revenue Bonds, Series 2011A through Series 2011C. Annual financial information and audited financial statements were not filed by the City in 2012 for the Fiscal Year ended December 31, 2011 with respect to the City's Chicago O'Hare International Airport General Airport

Passenger Facility Charge Revenue Bonds, Series 2011A and Series 2011B. On October 12, 2016, the City filed with EMMA such annual financial information and audited financial statements with respect to such bonds.

With respect to multiple series of the City's Chicago O'Hare International Airport General Airport Third Lien Revenue Bonds, American Airlines is an "obligated person" with respect to such. On December 9, 2013, American Airlines merged with US Airways. The City filed a notice with EMMA with respect to this event on August 25, 2014 (not within the 10 business-day deadline imposed by the Rule).

The rating agencies took certain rating actions with respect to the ratings of Ambac Assurance Corporation and Financial Security Assurance Inc. (collectively, the "*Bond Insurers*"). The Bond Insurers provided municipal bond insurance policies relating to certain series of the City's Chicago Midway Airport revenue bonds. Event notices with respect to such rating changes were not filed with EMMA. The City made such filings on May 22, 2014.

Ambac Assurance Corporation provided a municipal bond insurance policy relating to the City's Motor Fuel Tax Revenue Bonds, Series 2003A and Assured Guaranty Corp. provided municipal bond insurance policies relating to the City's Motor Fuel Tax Revenue Bonds, Series 2008. Event notices with respect to the rating changes taken by the rating agencies with respect to these insurers were not filed. The City made filings with EMMA on June 3, 2014 and August 22, 2014 with respect to these rating changes.

The City failed to file timely event notices with respect to certain rating changes affecting the City's bonds subject to the Rule and for which the City is an "obligated person" under the Rule (collectively, the "*Prior Bonds*") or affecting bond insurance companies which insured any Prior Bonds (collectively the "*Prior Bond Insurers*"). The City filed with EMMA on August 29, 2014 a notice with respect to all rating changes known to the City and affecting the Prior Bonds (including certain Senior Lien Bonds and Second Lien Bonds) occurring over the last ten years. The City filed with EMMA on August 27, 2014 a notice with respect to all rating changes, known to the City and affecting the Prior Bond Insurers, occurring during the last seven years.

On January 15, 2016, S&P upgraded the rating of the City's Midway Second Lien Bonds from "A-" to "A". On May 17, 2016, the City filed with EMMA an event notice relating to this rating upgrade.

On May 18, 2015, S&P downgraded the rating of the City's then-outstanding second lien water revenue bonds from "AA-" to "A." The City timely filed an event notice on EMMA regarding this rating downgrade for all of its then-outstanding second lien water revenue bonds except the Second Lien Water Revenue Bonds, Taxable Project Series 2010B (Build America Bonds - Direct Payment) (the "*Series 2010B Bonds*") and the Second Lien Water Revenue Bonds, Taxable Project Series 2010C (Qualified Energy Conservation Bonds - Direct Payment) (the "*Series 2010C Bonds*"). On November 28, 2017, the City filed an event notice on EMMA relating to this rating downgrade with respect to the Series 2010B Bonds and the Series 2010C Bonds.

In July 2015, the City filed on EMMA on a timely basis the audited financial statements for the Water Fund for the year 2014 for all then-outstanding water revenue bonds, except with respect to the Series 2010B Bonds and the Series 2010C Bonds. On July 16, 2015, the City filed on EMMA the 2014 audited financial statements for the Water Fund with respect to the Series 2010B Bonds and the Series 2010C Bonds. On November 30, 2017, the City filed on EMMA a notice regarding its failure to file on a timely basis the 2014 audited financial statements with respect to the Series 2010B Bonds and the Series 2010C Bonds.

The City's Chicago Midway Airport Second Lien Revenue Refunding Bonds, Series 2014C (the "2014C Bonds") were secured by a letter of credit by J.P. Morgan Chase Bank, N.A. (the "Letter of Credit Bank"). On May 19, 2015, Fitch upgraded the long-term rating of the Letter of Credit Bank from "A+" to "AA-" and its short-term rating from "F1" to "F1+." On September 19, 2014, Moody's Investors Service ("Moody's") downgraded the long-term letter of credit supported rating of the 2014C Bonds from "Aa1" to "Aa2." On May 28, 2015, Moody's upgraded the long-term letter of credit supported rating of the 2014C Bonds from "Aa2" to "Aa1." Event notices with respect to such rating changes were not filed with EMMA. The City made such filings on July 13, 2018. The Letter of Credit Bank has since been replaced.

## **MISCELLANEOUS**

The summaries or descriptions contained herein of provisions of the Indenture and the Undertaking and all references to other materials not purporting to be quoted in full, are qualified in their entirety by reference to the complete provisions of the documents and other materials summarized or described. Copies of these documents may be obtained from the office of the Chief Financial Officer.

The 2019A Bonds are authorized and are being issued pursuant to the City Council's approval under the powers of the City as a home rule unit under Article VII of the State Constitution.

## **CITY OF CHICAGO**

By: /s/ Carole L. Brown  
Carole L. Brown  
Chief Financial Officer

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**APPENDIX A**

**SUMMARY OF THE INDENTURE**

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## SUMMARY OF THE INDENTURE

*The following is a summary of certain provisions of the Indenture to which reference is made for a complete statement of the provisions and contents thereof. Copies of the Indenture are available for review prior to the sale and delivery of the 2019A Bonds at the office of the City's Chief Financial Officer and thereafter at the office of the Trustee.*

### Glossary of Terms

*The following are definitions of certain terms used in the Indenture and this Official Statement. This glossary is provided for the convenience of the reader and does not purport to be comprehensive or definitive. All references herein to terms defined in the Indenture are qualified in their entirety by the definitions set forth in the Indenture.*

“Authorized Denomination” means \$5,000 and any integral multiple thereof.

“Authorized Officer” means (a) the Mayor, the Chief Financial Officer, the City Comptroller or any other official of the City so designated by a Certificate signed by the Mayor or Chief Financial Officer and filed with the Trustee for so long as such designation shall be in effect, and (b) the City Clerk with respect to the certification of any ordinance or resolution of the City Council or any other document filed in his or her office.

“Beneficial Owner” means the owner of a beneficial interest in the 2019A Bonds registered in the name of Cede & Co., as nominee of DTC (or a successor securities depository or nominee for either of them).

“Bond Counsel” means the firm of Miller, Canfield, Paddock & Stone, P.L.C., Chicago, Illinois, and the firm of Zuber Lawler & Del Duca LLP, Chicago, Illinois, or any other firm or firms of nationally recognized bond counsel designated by the Corporation Counsel of the City.

“Bond Fund” means the City of Chicago General Obligation Bonds, Series 2019A Bond Fund established and described in the Indenture.

“Bondholder,” “holder,” or “owner of the 2019A Bonds” means the Registered Owner or Beneficial Owner of any 2019A Bond, as the case may be.

“Bond Ordinance” means the ordinance duly adopted by the City Council of the City on March 13, 2019 authorizing the issuance of the 2019A Bonds.

“Bond Register” means the registration books of the City kept by the Trustee to evidence the registration and transfer of 2019A Bonds.

“Bond Year” means a 12-month period commencing on January 2 of each calendar year and ending on January 1 of the next succeeding calendar year.

“Business Day” means any day other than (i) a Saturday or Sunday, (ii) a day on which banks located in the city where the Designated Corporate Trust Office is located are authorized or required by law to close, and (iii) a day on which The New York Stock Exchange, Inc. is closed.

“Certificate” means an instrument of the City in writing signed by an Authorized Officer. Any such instrument in writing and supporting opinions or representations, if any, may, but need not, be

combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined shall be read and construed so as to form a single instrument. Any such instrument may be based, insofar as it relates to legal, accounting or engineering matters, upon the opinion or representation of counsel, accountants, or engineers, respectively, unless the officer signing such instrument knows that the opinion or representation with respect to the matters upon which such instrument may be based, as aforesaid, is erroneous. The same Authorized Officer, or the same counsel or accountant or other persons, as the case may be, need not certify to all of the matters required to be certified under any provision of the Indenture or any Supplemental Indenture, but different officers, counsel, accountants or other persons may certify to different matters, respectively.

*“Chief Financial Officer”* means the Chief Financial Officer appointed by the Mayor, or the City Comptroller of the City at any time a vacancy exists in the office of the Chief Financial Officer.

*“City”* means the City of Chicago, a municipal corporation and home rule unit of local government, organized and existing under the State Constitution and laws of the State.

*“City Clerk”* means the duly qualified and acting City Clerk of the City or any Deputy City Clerk or other person that may lawfully take a specific action or perform a specific duty prescribed for the City Clerk pursuant to the Bond Ordinance.

*“City Comptroller”* means the City Comptroller of the City.

*“City Council”* means the City Council of the City.

*“Code”* means the United States Internal Revenue Code of 1986, as amended. References to the Code and to Sections of the Code shall include relevant final, temporary or proposed regulations thereunder as in effect from time to time and as applicable to obligations issued on the Date of Issuance.

*“Date of Issuance”* means the date of issuance and delivery of the 2019A Bonds to the initial purchasers thereof.

*“Defeasance Obligations”* means: (A) direct obligations of the United States of America; (B) obligations of agencies of the United States of America, the timely payment of principal of and interest on which are guaranteed by the United States of America; (C) obligations of the following government-sponsored agencies that are not backed by the full faith and credit of the U.S. Government: Federal Home Loan Mortgage Corp. (FHLMC) debt obligations, Farm Credit System (formerly: Federal Land Banks, Federal Intermediate Credit Banks, and Banks for Cooperatives) debt obligations, Federal Home Loan Banks (FHL Banks) debt obligations, Fannie Mae debt obligations, Financing Corp. (FICO) debt obligations, Resolution Funding Corp. (REFCORP) debt obligations, and U.S. Agency for International Development (U.S. A.I.D.) Guaranteed notes; (D) 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; or (E) instruments evidencing an ownership interest in obligations described in the preceding clauses (A), (B), and (C).

*“Delivery Office”* shall mean the following office of the Trustee:

*For Notice Purposes and Presentation of 2019A Bonds for payment or transfers:*  
Amalgamated Bank of Chicago,  
Attn: Pamela Sumerall, Senior Vice President  
Corporate Trust Services  
30 N. LaSalle Street, 38th Floor  
Chicago, IL 60602

*“Deposit Date”* means the Business Day immediately preceding each Interest Payment Date.

*“Designated Corporate Trust Office”* means the corporate trust office of the Trustee located at the address of the Trustee set forth in the definition of *“Delivery Office”* in the Indenture, as such address may be changed from time to time by the Trustee.

*“DTC”* means The Depository Trust Company, New York, New York, or its nominee, and its successors and assigns, or any other depository performing similar functions.

*“Federal Obligation”* means any direct obligation of, or any obligation the full and timely payment of principal of and interest on which is guaranteed by, the United States of America.

*“Fitch”* means Fitch Ratings Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and assigns, and, if such corporation shall be dissolved or liquidated, or shall no longer perform the functions of a securities rating agency, *“Fitch”* shall be deemed to refer to any other nationally recognized securities rating agency designated by the City by notice to the Trustee.

*“Indenture”* means the Trust Indenture dated as of April 1, 2019, between the City and the Trustee with respect to the 2019A Bonds, as amended and/or supplemented from time to time in accordance with the provisions thereof.

*“Interest Payment Date”* means each January 1 and July 1. The initial Interest Payment Date shall be July 1, 2019.

*“Kroll”* means Kroll Bond Rating Agency, its successors and assigns, and, if Kroll shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, *“Kroll”* shall be deemed to refer to any other nationally recognized securities rating agency designated by the City by notice to the Trustee.

*“Maturity Date”* means, for the 2019A Bonds of each specified maturity, the applicable maturity date set forth on the inside front cover.

*“Mayor”* means the Mayor of the City.

*“Municipal Code”* means the Municipal Code of Chicago, as from time to time amended.

*“Ongoing Financing Services”* means any periodic fees and expenses payable to parties involved in the provision of ongoing services relating to the 2019A Bonds, such as rating agencies and entities providing financial market information to be used in connection with the structuring and sale of the 2019A Bonds, as defined in Section 7 of the Bond Ordinance.

*“Opinion of Bond Counsel”* means a written opinion of Bond Counsel in form and substance acceptable to the City.

*“Outstanding”* means, when used with reference to any 2019A Bonds, all of such obligations issued under the Indenture that are unpaid, provided that such term does not include:

- (a) 2019A Bonds canceled at or prior to such date or delivered to or acquired by the Trustee at or prior to such date for cancellation;
- (b) matured or redeemed 2019A Bonds which have not been presented for payment in accordance with the provisions of the Indenture and for the payment of which the City has deposited funds with the Trustee;
- (c) 2019A Bonds for which the City has provided for payment by depositing in an irrevocable trust or escrow, cash or Defeasance Obligations, in each case, the maturing principal of and interest on which will be sufficient to pay at maturity, or if called for redemption on the applicable redemption date, the principal of, redemption premium, if any, and interest on such 2019A Bonds;
- (d) 2019A Bonds in lieu of or in exchange or substitution for which other 2019A Bonds shall have been authenticated and delivered pursuant to the Indenture; and
- (e) 2019A Bonds owned by the City and tendered to the Trustee for cancellation.

*“Paying Agent”* means the Trustee and any Paying Agent designated by the Trustee, and any successor thereto.

*“Permitted Investments”* means any of the following obligations or securities permitted under the laws of the State and the Municipal Code:

- (a) interest-bearing general obligations of the United States of America, the State or the City;
- (b) United States treasury bills and other non-interest bearing general obligations of the United States of America when offered for sale in the open market at a price below the face value of same, so as to afford the City a return on such investment in lieu of interest;
- (c) short-term discount obligations of the United States Government or United States Government agencies;
- (d) certificates of deposit of national banks or banks located within the City which are either (i) fully collateralized at least 110 percent by marketable United States Government securities marked to market at least monthly or (ii) secured by a corporate surety bond issued by an insurance company licensed to do business in the State and having a claims-paying rating in the top rating category as rated by a nationally recognized statistical rating organization and maintaining such rating during the term of such investment;
- (e) banker’s acceptances of banks and commercial paper of banks whose senior obligations are rated in the top two short-term rating categories by at least two national rating agencies and maintaining such rating during the term of such investment;

(f) tax-exempt securities exempt from federal arbitrage provisions applicable to investments of proceeds of the City's tax-exempt debt obligations;

(g) shares of money market mutual funds registered under the Investment Company Act of 1940, which shares are registered under the Securities Act of 1933, including any such fund for which the Trustee or any of its affiliates provides any service including any service for which a fee may be paid; and

(h) any other suitable investment instrument permitted by State laws and the Municipal Code governing municipal investments generally, subject to the reasonable exercise of prudence in making investments of public funds.

*“Pledged Taxes”* means the proceeds of a direct annual tax levied pursuant to the Bond Ordinance and subject to abatement in accordance therewith.

*“Principal and Interest Account”* means the “Series 2019A Principal and Interest Account” established within the Bond Fund for the 2019A Bonds as described below under “—Funds and Accounts—Bond Fund.”

*“Principal and Interest Account Requirement”* means an amount equal to the total principal installment and interest due on the 2019A Bonds as of each January 1 and July 1 (including any mandatory redemption of the 2019A Bonds), which amount shall be deposited in the Principal and Interest Account not later than the Deposit Date for such Interest Payment Date.

*“Project”* means the capital projects described in the first paragraph of Section 2 of the Bond Ordinance.

*“Project Costs”* means the cost of acquisition, construction and equipping of the Project, including the cost of acquisition of all land, rights of way, property, rights, easements and interests acquired by the City for such construction, the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved, the cost of all machinery and equipment determined to be necessary and desirable by the City, financing charges, consultant fees, interest prior to and during construction and, as permitted under the Code for such period after completion of construction as the City shall determine, the cost of engineering and legal expenses, plans, specifications, estimates of cost and revenues, other expenses necessary or incident to determining the feasibility or practicability of constructing any portion of the Project, administrative expenses and such other costs, expenses and funding as may be necessary or incident to the construction of the Project, financing of such construction and placing the Project in operation.

*“Rating Agency”* means any of Fitch, S&P and Kroll, or another rating agency that has a credit rating assigned to the 2019A Bonds at the request of the City.

*“Record Date”* means each June 15 and December 15 (whether or not a Business Day).

*“Redemption Price”* means with respect to the 2019A Bonds, the principal amount thereof plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of the 2019A Bonds.

*“Refunding Purposes”* means the retiring of any lines of credit or general obligation commercial paper notes outstanding from time to time, as defined in the Bond Ordinance.

“*Registered Owner*” or “*Owner*” means the person or persons in whose name or names a 2019A Bond shall be registered in the Bond Register.

“*S&P*” means S&P Global Ratings, a business unit of Standard & Poor’s Financial Services LLC, its successors and assigns, and, if S&P shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, “*S&P*” shall be deemed to refer to any other nationally recognized securities rating agency designated by the City by notice to the Trustee.

“*Securities Depository*” means DTC and any other securities depository registered as a clearing agency with the Securities and Exchange Commission pursuant to Section 17A of the Securities Exchange Act of 1934, as amended, and appointed as the securities depository for the 2019A Bonds.

“*Series 2019A Capitalized Interest Account*” means the account of that name established within the Bond Fund and described below under “—Funds and Accounts—*Series 2019A Capitalized Interest Account*.”

“*Series 2019A Costs of Issuance Account*” means the account of that name established within the Project Fund and described below under “—Funds and Accounts—*Series 2019A Costs of Issuance Account*.”

“*Series 2019A Investment Earnings Account*” means the account of that name established within the Project Fund and described below under “—Funds and Accounts—*Series 2019A Investment Earnings Account*”.

“*Series 2019A Refunding Purposes Account*” means the account of that name established within the Project Fund and described below under “—Funds and Accounts—*Series 2019A Refunding Purposes Account*.”

“*State*” means the State of Illinois.

“*Supplemental Indenture*” means any indenture modifying, altering, amending, supplementing or confirming the Indenture duly entered into in accordance with the terms thereof.

“*Tax Certificate*” means the tax certificate of the City dated the Date of Issuance pertaining to the 2019A Bonds.

“*Trust Estate*” means the property conveyed to the Trustee pursuant to the granting clauses of the Indenture.

“*Trustee*” means Amalgamated Bank of Chicago, an Illinois banking corporation with trust powers, and its successors and any entity resulting from or surviving any consolidation or merger to which it or its successors may be a party, and any successor trustee at the time serving as successor trustee under the Indenture.

“*Underwriters*” means an underwriter or group of underwriters selected by the City pursuant to the Bond Ordinance and set forth on the front cover of this Official Statement.

#### **Authority for Indenture**

The Indenture is executed and delivered by the City by virtue of and pursuant to the Bond Ordinance and as an exercise of its home rule powers. The City has ascertained, determined and declared

that the execution and delivery of the Indenture is necessary to meet the public purposes and obligations of the City, that each and every act, matter, thing or course of conduct as to which provision is made in the Indenture is necessary or convenient in order to carry out and effectuate such purposes of the City and to carry out its powers and is in furtherance of the public benefit, safety and welfare and that each and every covenant or agreement contained and made in the Indenture is necessary, useful or convenient in order to better secure the 2019A Bonds and are contracts or agreements necessary, useful or convenient to carry out and effectuate the corporate purposes of the City.

### **Indenture to Constitute Contract**

In consideration of the purchase and acceptance of the 2019A Bonds by the holders of the 2019A Bonds, the provisions of the Indenture and any Supplemental Indenture shall be a part of the contract of the City with the Owners of the 2019A Bonds and shall be deemed to be and shall constitute a contract between the City, the Trustee, and the Owners from time to time of the 2019A Bonds. The City covenants and agrees with the Owners of the 2019A Bonds and the Trustee, that it will faithfully perform all of the covenants and agreements contained in the Indenture, in the Bond Ordinance and in the 2019A Bonds.

### **Source of Payment of 2019A Bonds**

Pursuant to the Bond Ordinance, the 2019A Bonds constitute direct and general obligations of the City for the payment of which the City pledges its full faith and credit and, pursuant to the Bond Ordinance, the Pledged Taxes. The City covenants that, until all of the 2019A Bonds have first been fully paid or fully defeased in accordance with the Indenture, the Pledged Taxes shall not be used for any purpose other than the payment of (i) principal of, interest on and Redemption Price, if any, on the 2019A Bonds (or for the purchase by the City of 2019A Bonds which are then cancelled), and (ii) Ongoing Financing Services; provided, however, that the levy of Pledged Taxes is subject to abatement as provided in the Bond Ordinance. See "SECURITY FOR THE 2019A BONDS."

### **Funds and Accounts**

#### *Bond Fund*

Pursuant to the Indenture, the City has established with the Trustee a separate trust fund designated "City of Chicago General Obligation Bonds, Series 2019A Bond Fund". At each such time as required under the Indenture, the City shall deposit into the Bond Fund, from funds of the City legally available therefor, an amount sufficient to satisfy the Principal and Interest Account Requirement. Money on deposit in the Bond Fund shall be applied by the Trustee to pay the principal of (whether due at maturity or by mandatory redemption) and interest on the 2019A Bonds, as the same become due. Pending the use of moneys held in a Bond Fund, the Trustee shall invest such moneys in Permitted Investments upon the direction of the Chief Financial Officer or any person designated by the Chief Financial Officer. Income from such investments shall be credited to the account within the Bond Fund from which investment was made. The Indenture establishes within the Bond Fund two accounts: (i) the Series 2019A Principal and Interest Account to be used to pay principal and interest on the 2019A Bonds as the same shall become due; and (ii) the Series 2019A Capitalized Interest Account, into which certain 2019A Bond proceeds will be deposited and used to pay interest on the 2019A Bonds. See "Series 2019A Capitalized Interest Account" below.

### *Project Fund*

Pursuant to the Indenture, the City has established with the Trustee a trust fund designated "City of Chicago General Obligation Bonds, Series 2019A Project Fund". Moneys on deposit in the Project Fund will be paid out from time to time by the Trustee to or upon the order of the City in order to provide for the payment or to reimburse the City for the payment of Project Costs upon receipt by the Trustee of a certificate of an Authorized Officer describing the Project Costs to be paid or reimbursed with such moneys (including the identity of and method of payment for each payee) and stating that: (i) the costs in an aggregate amount set forth in such certificate are necessary and appropriate Project Costs that (a) have been incurred and paid or (b) are expected to be paid within the next 60 days; (ii) the amount to be paid or reimbursed to the City as set forth in such certificate is reasonable and represents a part of the amount payable for the Project Costs and that such payment is to be made or, in the case of reimbursement to the City, was made, in accordance with the terms of any applicable contracts and in accordance with usual and customary practice under existing conditions; (iii) no part of the Project Costs that are the subject of such certificate was included in any certificate previously filed with the Trustee under the provisions of the Indenture; and (iv) the use of the money so withdrawn from the Project Fund and the use of the facilities provided with such moneys will not result in a violation of any applicable covenant, term or provision of the Tax Certificate.

In connection with the provision of such certificate provided to the Trustee, the City shall provide the Trustee information which will indicate the allocation of sales proceeds of the 2019A Bonds with respect to each element or purpose for which the 2019A Bonds may be issued, to wit: (i) 2018 and 2019 aldermanic menu program, design and support; (ii) public right-of-way infrastructure improvements in City neighborhoods, including street, alley and viaduct construction and improvements, bridge and sidewalk improvements and replacement, and curb and gutter repairs and replacement and transportation improvements, including street resurfacing, freight tunnel rehabilitation, traffic signal modernization, new traffic signal installation, intersection safety improvements and transit facility improvements; (iii) infrastructure improvements to enhance the development of economic activity, including industrial street construction and improvements, streetscaping, median landscaping, demolition of hazardous, vacant or dilapidated buildings that pose a threat to public safety and welfare, shoreline reconstruction, riverbank stabilization, residential and commercial infrastructure redevelopment and noise mitigation projects; (iv) the acquisition of personal property, including, but not limited to, computer hardware and software, vehicles or other capital items useful or necessary for City purposes; (v) constructing, equipping, altering and repairing various municipal facilities, including fire stations, police stations, libraries, parks, schools, senior and health centers and other municipal facilities including the duly authorized acquisition of improved and unimproved real property within the City for municipal purposes, and the improvement, demolition and/or remediation of any such property, but excluding those municipal facilities described in clauses (vi)-(xiii) below; (vi) financing of costs of construction and equipping of a new, state-of-the-art Public Safety Training Academy to be located at 4301 West Chicago Avenue; (vii) financing of costs of the Chicago Smart Lighting Program, including the replacement of outdated light fixtures, pole replacement and wiring repairs and creating a modern lighting management system to streamline maintenance and repairs and reduce electric costs; (viii) financing of costs of interior improvements at the Copernicus Senior Center, located at 3160 North Milwaukee Avenue, including the replacement and repair of mechanical equipment and envelope work; (ix) financing of costs of renovations to Humboldt Park Library, located at 1605 North Troy Street, including the roof replacement, the replacement and repair of equipment and additional interior improvements; (x) financing of costs of renovations to West Belmont Library, located at 3104 North Narragansett Avenue, including interior improvements, the replacement and repair of mechanical equipment and envelope work; (xi) financing of costs of renovations to Legler Library at 115 South Pulaski Road in the City's West Garfield Park neighborhood to establish the West Side Regional Library; (xii) financing of costs of design and construction of a new Engine Company 115, including associated environmental remediation, site preparation, new building construction and site development, including utilities as required, in the City's West Pullman neighborhood; (xiii) financing of costs of renovations to

the 3rd District Police Station, serving Woodlawn and Greater Grand Crossing communities, including the replacement and repair of mechanical equipment and interior and exterior improvements; (xiv) Refunding Purposes; and (xv) costs of issuance, so that there shall be no use, transfer or reallocation of the sales proceeds of the 2019A Bonds that deviates from the limitations and allocations, or that exceeds the principal amounts, pertaining to each purpose for which the 2019A Bonds may be issued as set forth in the Bond Ordinance.

In connection with the initial deposit of funds to the Project Fund, the Trustee shall create the following subaccounts in the Project Fund and deposit the amounts as indicated for Project purposes as set forth below:

	<u>Subaccount</u>	<u>Deposit Amount</u>
1.	2018-19 Aldermanic Menu	\$107,724,208
2.	Rights of Way Improvements	70,000,000
3.	Economic Development Infrastructure	52,294,806
4.	Personal Property Acquisition	49,409,125
5.	Municipal Facility Improvements	75,000,000
6.	Public Safety Training Academy	65,000,000
7.	Copernicus Senior Center	1,000,000
8.	Humboldt Park Library	1,000,000
9.	West Belmont Library	1,000,000
10.	3 <sup>rd</sup> District Police Station	5,000,000
11.	Smart Lighting Program	130,353,754
12.	Legler Library	5,000,000
13.	Engine Company 115	30,000,000

The completion, substantial completion or abandonment of each of those individual elements comprising the Project, as separately described under paragraphs (i) through (xiii) and as separately listed as items 1 through 13, above, shall be evidenced by a certificate of an Authorized Officer, which shall be filed with the Trustee, stating the date of such completion, anticipated completion or abandonment and the amount, if any, required in the opinion of the signer of such certificate for the payment of any remaining part of the Project Costs.

The Indenture establishes within the Project Fund three additional accounts: (i) the Series 2019A Refunding Purposes Account, (ii) the Series 2019A Costs of Issuance Account and (iii) the Series 2019A Investment Earnings Account. See "*Series 2019A Refunding Purposes Account*", "*Series 2019A Costs of Issuance Account*" and "*Series 2019A Investment Earnings Account*" below.

Moneys in the Project Fund shall be invested at the written direction of an Authorized Officer to the fullest extent practicable in Permitted Investments maturing in such amounts and at such times as may be necessary to provide funds when needed to pay, as applicable, Project Costs, Refunding Purposes or costs of issuance of 2019A Bonds, or such other costs as may be required to be paid from such moneys. The City may, and to the extent required for payments from the Project Fund shall, direct the Trustee in writing to sell any such Permitted Investments at any time, and the proceeds of such sale, and of all payments at maturity and upon redemption of such investments, shall be held in the Project Fund. Investment earnings received on moneys or securities in the Project Fund shall be deposited to the Series 2019A Investment Earnings Account.

#### *Deposits into Bond Fund*

Not later than each Deposit Date, there shall be on deposit in the Bond Fund an amount equal to the Principal and Interest Account Requirement.

In addition to the Principal and Interest Account Requirement, there shall be deposited into the Bond Fund any other moneys received by the Trustee under and pursuant to the Indenture, when accompanied by directions from the person depositing such moneys that such moneys are to be paid into the Bond Fund and to one or more accounts therein.

Upon calculation by the Trustee of each Principal and Interest Account Requirement, the Trustee shall notify the City of the Principal and Interest Account Requirement, along with the Deposit Date to which it relates, and shall provide the City with such supporting documentation and calculations as the City may reasonably request.

Pending the use of moneys held in the Bond Fund, the Trustee shall invest such moneys in Permitted Investments upon the direction of an Authorized Officer or any person designated by an Authorized Officer. Income from such investments shall be retained in the Bond Fund.

#### *Series 2019A Capitalized Interest Account*

Pursuant to the Indenture, the City has established with the Trustee a trust account within the Bond Fund, designated as the “Series 2019A Capitalized Interest Account” with respect to the 2019A Bonds, to hold certain proceeds of sale of the 2019A Bonds.

Moneys on deposit in the Series 2019A Capitalized Interest Account, and the interest earnings thereon, shall be applied to pay interest due on the 2019A Bonds on each of the Interest Payment Dates occurring on and before January 2, 2020. Any amount remaining on deposit in the Series 2019A Capitalized Interest Account on January 2, 2020, shall be used to pay interest on the 2019A Bonds, as the City shall direct, before funds from the Principal and Interest Account are used.

#### *Series 2019A Refunding Purposes Account*

Pursuant to the Indenture, the City has established with the Trustee a trust account within the Project Fund, designated as the “Series 2019A Refunding Purposes Account” with respect to the 2019A Bonds, to hold certain proceeds allocated for Refunding Purposes.

At the written direction of the City, moneys on deposit in the Series 2019A Refunding Purposes Account shall be withdrawn by the Trustee on the Business Day prior to the redemption or maturity due date of the general obligation commercial paper notes to be retired. Moneys on deposit in the Series 2019A Refunding Purposes Account, including the investment earnings thereon, remaining after the retirement of such general obligation commercial paper notes, shall be deposited by the Trustee to the Series 2019A Investment Earnings Account.

#### *Series 2019A Costs of Issuance Account*

Pursuant to the Indenture, the City has established with the Trustee a trust account within the Project Fund, designated as the “Series 2019A Costs of Issuance Account” with respect to the 2019A Bonds, to hold certain proceeds allocated to pay costs of issuance of the 2019A Bonds.

Moneys on deposit in the Series 2019A Costs of Issuance Account shall be withdrawn by the Trustee and paid to or as directed by the City, upon receipt by the Trustee of a written disbursement request from the City identifying the costs of issuance and the amounts thereof to be paid pursuant to such request. Moneys on deposit in the Series 2019A Costs of Issuance Account, including the investment earnings thereon, remaining after all disbursements for payment of the costs of issuance have been made shall be deposited by the Trustee to the Series 2019A Investment Earnings Account.

#### *Series 2019A Investment Earnings Account*

Pursuant to the Indenture, the City has established with the Trustee an account within the Project Fund, designated as the “Series 2019A Investment Earnings Account”. Moneys on deposit in the Series 2019A Investment Earnings Account, including the investment earnings thereon, shall be retained therein and deposited to the 2018-19 Aldermanic Menu Subaccount, the Economic Development Infrastructure Subaccount, the Personal Property Acquisition Subaccount, or the Smart Lighting Program Subaccount, as the City shall direct.

#### **Supplemental Indentures**

A Supplemental Indenture may be authorized at any time by an ordinance adopted by the City Council and, upon compliance with the provisions of the Indenture, shall be fully effective, in accordance with its terms and not subject to consent by the Owners of the 2019A Bonds for the following purposes: (a) to add to the covenants and agreements of the City in the Indenture other covenants and agreements to be observed by the City which are not contrary to or inconsistent with the Indenture as theretofore in effect; (b) to add to the limitations and restrictions in the Indenture other limitations and restrictions to be observed by the City which are not contrary to or inconsistent with the Indenture as theretofore in effect; (c) to surrender any right, power or privilege reserved to or conferred upon the City by the terms of the Indenture, but only if the surrender of such right, power or privilege is not contrary to or inconsistent with the covenants and agreements of the City contained in the Indenture; (d) to confirm, as further assurance, the pledge under the Indenture, and the subjection of, additional properties, taxes or other collateral to any lien, claim or pledge created or to be created by, the Indenture; (e) to cure any ambiguity, supply any omission, or cure or correct any defect or inconsistent provision in the Indenture; (f) to insert such provisions clarifying matters or questions arising under the Indenture as are necessary or desirable and are not contrary to or inconsistent with the Indenture as theretofore in effect; or (g) to provide additional duties of the Trustee under the Indenture.

The Indenture shall not be modified or amended in any respect except as provided therein. Nothing in the Indenture shall affect or limit the right or obligation of the City to adopt, make, do, execute, acknowledge or deliver any ordinance, resolution, act or other instrument pursuant to the provisions of the Indenture or the right or obligation of the City to execute and deliver to the Trustee any instrument which is required to be delivered to the Trustee pursuant to the Indenture.

Every Supplemental Indenture delivered to the Trustee for execution shall be accompanied by an opinion of counsel stating that such Supplemental Indenture has been duly and lawfully authorized by the City Council and executed by the City in accordance with the provisions of the Indenture, is authorized or permitted by the Indenture, and will, when executed and delivered by the Trustee, be valid and binding upon the City and enforceable in accordance with its terms.

The Trustee is authorized to enter into, execute and deliver a Supplemental Indenture and to make all further agreements and stipulations which may be therein contained, and the Trustee in taking such action shall be fully protected in relying on an opinion of counsel that such Supplemental Indenture is authorized or permitted by the provisions of the Indenture.

No Supplemental Indenture shall change or modify any of the rights or obligations of the Trustee without its written assent thereto.

No Supplemental Indenture shall take effect unless and until there has been delivered to the Trustee an Opinion of Bond Counsel to the effect that such Supplemental Indenture does not adversely affect the exclusion from gross income for federal income tax purposes to which interest on the 2019A Bonds would otherwise be entitled.

### **Supplemental Indentures Requiring Bondholder Consent**

At any time or from time to time, a Supplemental Indenture may be authorized by an ordinance adopted by the City Council, subject to consent by the Owners of the 2019A Bonds in accordance with and subject to the provisions of the Indenture, which Supplemental Indenture, upon the filing with the Trustee of a copy of such ordinance certified by the City Clerk, upon compliance with the provisions of the Indenture, and upon execution and delivery of such Supplemental Indenture by the City and the Trustee, shall become fully effective in accordance with its terms.

Any modification or amendment of the Indenture or of the rights and obligations of the City and of the Owners of the 2019A Bonds, in particular, which requires the consent of the 2019A Bondholders, may be made by a Supplemental Indenture, with the written consent given as provided in the Indenture: (a) of the Owners of a majority in principal amount of the 2019A Bonds Outstanding at the time such consent is given; or (b) in case less than all of the then Outstanding 2019A Bonds are affected by the modification or amendment, of the Owners of a majority in principal amount of the then Outstanding 2019A Bonds so affected. No such modification or amendment shall permit a change in the terms of redemption or maturity of the principal of any Outstanding 2019A Bonds or of any installment of interest thereon or a reduction in the principal amount or the applicable Redemption Price thereof or in the rate of interest thereon without the consent of the Owner of such 2019A Bonds, or shall reduce the percentages or otherwise affect the classes of 2019A Bonds the consent of the Owners of which is required to effect any such modification or amendment, or shall change or modify any of the rights or obligations of the Trustee without its written assent thereto. A 2019A Bond shall be deemed to be affected by a modification or amendment of the Indenture if the same adversely affects or diminishes the rights of the Owners of such 2019A Bond.

### **Default and Remedies**

Each of the following events is an "Event of Default" under the Indenture:

- (a) payment of the principal or Redemption Price, if any, of any 2019A Bonds shall not be made when and as the same shall become due, whether at maturity or upon call for redemption or otherwise;
- (b) payment of any installment of interest on any 2019A Bonds shall not be made when and as the same shall become due; or
- (c) the City shall fail or refuse to comply with the provisions of the Indenture, or shall default in the performance or observance of any of the covenants, agreements or conditions on its part contained in the Indenture or in the 2019A Bonds, which materially affects the rights of the Owners of the 2019A Bonds and such failure, refusal or default shall continue for a period of 45 days after written notice thereof by the Trustee or the Owners of not less than 25 percent in aggregate principal amount of the 2019A Bonds Outstanding; provided, however, that in the case of any such default which can be cured by due diligence but which cannot be cured within the 45-day period, the time to cure shall be extended for such period as may be necessary to remedy the default with all diligence.

Upon the happening and continuance of any Event of Default specified in paragraph (a) or (b) above, the Trustee shall proceed, or upon the happening and continuance of any Event of Default (beyond the time periods specified therein) specified in paragraph (c) above, the Trustee may proceed, and upon the written request of the Owners of not less than 25 percent in aggregate principal amount of the 2019A Bonds Outstanding, shall proceed, in its own name, to protect and enforce its rights and the rights of the Owners of the 2019A Bonds by such of the following remedies as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights:

- (i) by mandamus or other suit, action or proceeding at law or in equity, to enforce all rights of the Owners of the 2019A Bonds including the right to require the City to receive and collect taxes adequate to carry out the covenants and agreements as to such taxes and to require the City to carry out any other covenant or agreement with the Owners of the 2019A Bonds and to perform its duties under the Indenture;
- (ii) by bringing suit upon the 2019A Bonds;
- (iii) by action or suit in equity, require the City to account as if it were the trustee of an express trust for the Owners of the 2019A Bonds; and/or
- (iv) by action or suit in equity, enjoin any acts or things which may be unlawful or in violation of the rights of the Owners of the 2019A Bonds.

In the enforcement of any rights and remedies under the Indenture, the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts then or during any default becoming, and at any time remaining, due from the City but only out of moneys pledged as security for the 2019A Bonds for principal, Redemption Price, interest or otherwise, under any provision of the Indenture or of the 2019A Bonds, and unpaid, with interest on overdue payments at the rate or rates of interest specified in the 2019A Bonds, together with any and all costs and expenses of collection and of all proceedings under the Indenture and under such 2019A Bonds without prejudice to any other right or remedy of the Trustee or of the Owners of the 2019A Bonds, and to recover and enforce a judgment or decree against the City for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect from any moneys available under the Indenture for such purpose, in any manner provided by law, the moneys adjudged or decreed to be payable.

Under no circumstance may the Trustee declare the principal of any 2019A Bonds to be due and payable prior to the Maturity Date following the occurrence of an Event of Default under the Indenture.

#### **Resignation or Removal of the Trustee; Successors**

The Trustee may at any time resign and be discharged of its duties and obligations created by the Indenture by giving not fewer than 60 days' written notice to the City and mailing notice thereof to the Owners of the 2019A Bonds at their addresses shown on the registration books kept by the Trustee within 20 days after the giving of such written notice. Such resignation shall take effect upon the appointment and acceptance of appointment of a successor by the City or the Owners of 2019A Bonds as provided in the Indenture.

The Trustee may be removed at any time by the Owners of a majority in principal amount of the 2019A Bonds then Outstanding, excluding any 2019A Bonds held by or for the account of the City, by an instrument or concurrent instruments in writing signed and duly acknowledged by such Owners or by their attorneys duly authorized in writing and delivered to the City. Copies of each such instrument shall be delivered by the City to the Trustee and any successor. The City may remove the Trustee at any time, except during the existence of an Event of Default, for such cause (or upon 30 days' notice for any reason)

as shall be determined in the sole discretion of the City by filing with the Trustee an instrument signed by an Authorized Officer and by mailing notice thereof to the Owners of the 2019A Bonds at their addresses shown on the registration books kept by the Trustee. Any removal of the Trustee shall take effect upon the appointment and acceptance of appointment of a successor Trustee.

In case at any time the Trustee shall resign or shall be removed or shall become incapable of acting, or shall be adjudged as bankrupt or insolvent, or if a receiver, liquidator or conservator of the Trustee or of its property shall be appointed, or if any public officer shall take charge or control of the Trustee or of its property or affairs, a successor may be appointed by the Owners of a majority in aggregate principal amount of the 2019A Bonds then Outstanding, excluding any 2019A Bonds held by or for the account of the City, by an instrument or concurrent instruments in writing signed by such Owners or their attorneys duly authorized in writing and delivered to such successor Trustee, notification thereof being given to the City and the predecessor Trustee. Pending such appointment, the City shall forthwith appoint a Trustee to fill such vacancy until a successor Trustee (if any) shall be appointed by the Owners of the 2019A Bonds as authorized in the Indenture. The City shall mail notice to Owners of 2019A Bonds of any such appointment within 20 days after such appointment. Any successor Trustee appointed by the City shall, immediately and without further act, be superseded by a Trustee appointed by the Owners of the 2019A Bonds. If in a proper case no appointment of a successor Trustee shall be made within 45 days after the Trustee shall have given to the City written notice of resignation or after the occurrence of any other event requiring or authorizing such appointment, the Trustee, or any Owner of the 2019A Bonds, may apply to any court of competent jurisdiction to appoint a successor. Said court may thereupon, after such notice, if any, as said court may deem proper and prescribe, appoint such successor Trustee. Any Trustee appointed shall be a bank, trust company or national banking association, in any such case having corporate trust powers, doing business and having a corporate trust office in the City.

Any successor Trustee appointed under the Indenture shall execute, acknowledge and deliver to its predecessor Trustee, and also to the City, a written instrument of acceptance respecting such appointment, and thereupon such successor Trustee, without any further act, deed or conveyance, shall become fully vested with all moneys, estates, properties, rights, powers, duties and obligations of such predecessor Trustee, with like effect as if originally named as Trustee; but the Trustee ceasing to act shall nevertheless, on the request of the City, or of the successor Trustee, execute, acknowledge and deliver such instruments of conveyance and further assurance and do such other things as may reasonably be required for more fully and certainly vesting and confirming in such successor Trustee all the right, title and interest of the predecessor Trustee in and to any property held by it under the Indenture, and shall pay over, assign and deliver to the successor Trustee any money or other property subject to the trusts and conditions set forth in the Indenture. Should any deed, conveyance or instrument in writing from the City be required by such successor Trustee for more fully and certainly vesting in and confirming to such successor Trustee any such estates, rights, powers and duties, any and all such deeds, conveyances and instruments in writing shall, on request, and so far as may be authorized by law, be executed, acknowledged and delivered by the City.

### **Defeasance**

The Indenture provides that if the City will pay to the Registered Owners of the 2019A Bonds or provide for the payment of, the principal, the redemption premium, if any, and interest to become due on the 2019A Bonds, then the Indenture and the Bond Ordinance will be fully discharged and satisfied with respect to the 2019A Bonds. Upon the satisfaction and discharge of the Indenture, the Trustee shall, upon the request of the City, execute and deliver to the City all such instruments as may be desirable to evidence such discharge and satisfaction, and all fiduciaries will pay over or deliver to the City all funds, accounts and other moneys or securities held by them pursuant to the Indenture which are not required for the payment or redemption of the 2019A Bonds. If payment or provision for payment is made to or for the Registered Owners of all or a portion of the 2019A Bonds, of the principal of and interest due and to become

due on any 2019A Bond at the times and in the manner stipulated therein, and there is paid or caused to be paid to the Trustee, all sums of money due and to become due according to the provisions of the Indenture, then the estate and rights thereby granted under the Indenture and the Bond Ordinance shall cease, terminate and be void as to those 2019A Bonds or portions thereof except for purposes of registration, transfer and exchange of 2019A Bonds and any such payment from such moneys or obligations. Any 2019A Bond will be deemed to be paid when payment of the principal of such 2019A Bond, plus interest thereon to the due date thereof (whether such due date be by reason of maturity or upon redemption as provided in the Indenture or otherwise), either (a) shall have been made or caused to have been made in accordance with the terms thereof, or (b) shall have been provided for by irrevocably depositing with the Trustee, in trust and exclusively for such payment, (1) moneys sufficient to make such payment or (2) Defeasance Obligations, or (3) a combination of moneys and Defeasance Obligations, such amounts so deposited being available or maturing as to principal and interest in such amounts and at such times, without consideration of any reinvestment thereof, as will insure the availability of sufficient moneys to make such payment (as confirmed by a nationally recognized firm of independent public accountants). If the City shall pay and discharge a portion of the 2019A Bonds as aforesaid, such portion shall cease to be entitled to any lien, benefit or security under the Indenture and the Bond Ordinance. The liability of the City with respect to such 2019A Bonds will continue, but the Registered Owners thereof shall thereafter be entitled to payment (to the exclusion of all other 2019A Bondholders) only out of the cash and Defeasance Obligations deposited with the Trustee under the Indenture.

No deposit pursuant to the paragraph above shall be made or accepted with respect to the 2019A Bonds and no use made of any such deposit unless the Trustee shall have received an Opinion of Bond Counsel to the effect that such deposit and use would not cause any of such 2019A Bonds to be treated as "arbitrage bonds" within the meaning of Section 148 of the Code or any successor provision thereto.

A defeasance deposit of Defeasance Obligations may be subject to a subsequent sale of such Defeasance Obligations and reinvestment of all or a portion of the proceeds of that sale in Defeasance Obligations which, together with money to remain so held in trust, shall be sufficient to provide for payment of principal, redemption premium, if any, and interest on any of the defeased 2019A Bonds (all as confirmed by a nationally recognized firm of independent public accountants). Amounts held by the Trustee in excess of the amounts needed so to provide for payment of the defeased 2019A Bonds may be subject to withdrawal by the City. No such sale and reinvestment shall be made or accepted unless the Trustee shall have received an opinion of nationally recognized municipal bond counsel to the effect that such sale and reinvestment would not cause any of the defeased 2019A Bonds to be treated as "arbitrage bonds" within the meaning of Section 148 of the Code or any successor provision thereto.

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**APPENDIX B**

**ECONOMIC AND DEMOGRAPHIC INFORMATION**

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## ECONOMIC AND DEMOGRAPHIC INFORMATION

*Set forth below is certain economic and demographic information regarding the City. Sources of information are set forth in footnotes at the end of this Appendix. With respect to non-City sources, the City considers these sources to be reliable but has made no independent verification of the information provided and does not warrant its accuracy.*

### Economy

The Chicago metropolitan area has a population of 9.5 million people, with nearly 4.8 million employees.<sup>1</sup> Chicago's large and diverse economy contributed to a gross regional product of \$680 billion in 2017.<sup>2</sup>

Chicago's transportation and distribution network offers access to air, rail, and water, with two ports capable of handling ocean-going ships and barges, and an airport system that moved nearly 2.0 million tons of freight, mail, and goods in 2017.<sup>3</sup> The City's airports are hubs for three of the four largest airlines in the U.S.<sup>4</sup> Chicago is the only region served by six of seven largest freight railroads.<sup>5</sup>

The Chicago metropolitan area's largest industry sectors by employment include trade, transportation and utilities, professional and business services, education and health services, government, leisure and hospitality and manufacturing.<sup>6</sup> The City benefits from a concentration of talent in legal, engineering, and financial services, and from a growing population in the City center. A record 55.2 million tourists visited Chicago in 2017.<sup>7</sup>

### Population

Chicago is home to over 2.7 million people that live in more than one million households.<sup>8</sup> The City's population increased nearly 1.0 percent since the 2010 Census.<sup>9</sup>

The population of the United States, the State of Illinois, Cook County and the City for the census years from 1980 to 2010 and the estimate for 2017 is set forth below.

POPULATION <sup>10</sup> 1980—2017				
Year	United States	State of Illinois	Cook County	Chicago
1980	226,545,805	11,427,409	5,253,655	3,005,072
1990	248,709,873	11,430,602	5,105,067	2,783,726
2000	281,421,906	12,419,293	5,376,741	2,896,016
2010	308,745,538	12,830,632	5,194,675	2,695,598
2017 Estimate	325,719,178	12,802,023	5,211,263	2,716,450

37.4 percent of Chicago's residents (age 25 or older) have at least bachelor's degrees, which is higher than the national average of 30.9 percent.<sup>11</sup>

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## Per Capita Income and Wages

The per capita personal income (estimated annual earnings) for the United States, the State of Illinois, Cook County and the Chicago MSA is set forth below for the years 2008 through 2017.

### PER CAPITA INCOME<sup>12</sup> 2008—2017

<u>Year</u>	<u>United States</u>	<u>State of Illinois</u>	<u>Chicago MSA<sup>13</sup></u>	<u>Cook County</u>
2008	\$40,904	\$43,306	\$46,459	\$46,952
2009	39,284	41,071	43,345	43,427
2010	40,545	42,088	44,196	44,145
2011	42,727	44,172	46,273	45,874
2012	44,582	46,067	48,766	48,507
2013	44,826	47,160	49,679	49,877
2014	47,025	49,530	52,718	53,709
2015	48,940	51,648	55,384	56,470
2016	49,831	52,473	56,296	57,285
2017	51,640	54,203	58,315	59,238

Note: On November 15, 2018 the U.S Bureau of Economic Analysis revised the statistics for 2001-2016. The figures presented here reflect the revised data and thus are not consistent with the City's past disclosure documents for its general obligation bonds. Data for 2018 is not available.

Chicago's 2017 median household income is \$52,497, compared to \$61,229 in Illinois and \$57,652 in the U.S., and Chicago ranks 37<sup>th</sup> among other metropolitan areas in the cost of living.<sup>14|15</sup>

## Employment

Total employment for the State of Illinois, the Chicago MSA, Cook County and the City for the years 2008 through 2018 is set forth below.

### EMPLOYMENT (in thousands) 2008—2018<sup>16</sup>

<u>Year</u>	<u>State of Illinois</u>	<u>Chicago MSA</u>	<u>Cook County</u>	<u>Chicago</u>
2008	6,239	4,600	2,447	1,231
2009	5,943	4,381	2,330	1,174
2010	5,937	4,358	2,356	1,206
2011	5,948	4,378	2,361	1,208
2012	5,991	4,438	2,398	1,228
2013	5,957	4,461	2,415	1,236
2014	6,047	4,539	2,455	1,257
2015	6,119	4,601	2,484	1,273
2016	6,170	4,655	2,507	1,286
2017	6,171	4,671	2,514	1,289
2018	6,191	4,685*	2,510*	1,287*

\*Preliminary

The annual unemployment rates (percent of population, not seasonally adjusted) for the United States, the State of Illinois, Cook County, the Chicago MSA and the City is set forth below for the years 2008 through 2018.

**ANNUAL UNEMPLOYMENT RATES<sup>17</sup>**  
**2008—2018**

<b>Year</b>	<b>United States</b>	<b>State of Illinois</b>	<b>Chicago MSA</b>	<b>Cook County</b>	<b>Chicago</b>
2008	5.78%	6.3%	6.1%	6.4%	7.0%
2009	9.3	10.2	10.2	10.5	11.1
2010	9.6	10.4	10.6	10.9	11.2
2011	8.9	9.7	9.9	10.4	10.8
2012	8.1	9.0	9.1	9.6	10.0
2013	7.4	9.0	9.1	9.6	10.0
2014	6.2	7.1	7.1	7.5	7.8
2015	5.3	6.0	5.9	6.2	6.6
2016	4.9	5.8	5.8	6.1	6.4
2017	4.4	4.9	4.9	5.2	5.5
2018	3.9	4.3	4.1	4.2	4.5

The percentage of total (nonfarm) employment by sector for the Chicago Metropolitan Division, State of Illinois and the United States for December 2018 is shown in the following table.

**PERCENTAGE OF TOTAL NON-FARM EMPLOYMENT BY MAJOR INDUSTRY SECTOR**  
**December 2018**

<b>Sector</b>	<b>United States<sup>18</sup></b>	<b>Illinois<sup>19</sup></b>	<b>Chicago Metropolitan Division<sup>20</sup></b>
Trade, Transportation and Utilities..	18.5%	19.9%	20.3%
Education and Health Services .....	15.9	15.3	16.0
Government .....	15.0	13.4	11.0
Professional and Business Services.	14.1	15.5	18.7
Leisure and Hospitality .....	11.0	10.1	10.0
Manufacturing.....	8.5	9.6	7.5
Financial Activities.....	5.7	6.6	7.1
Construction.....	4.9	3.6	3.3
Other Services.....	3.9	4.2	4.2
Information .....	1.9	1.5	1.8
Mining and Logging .....	0.5	0.1	0.0
Total.....	100.0%	100.0%	100.0%

Note: totals may not add due to rounding.

## Employers

The Chicago MSA has 34 Fortune 500 headquarters.<sup>21</sup> The City was named the “Top Metro” for corporate relocation and investment in 2017 (for the 3rd year in a row) by *Site Selection* magazine.<sup>22</sup> For the fourth year in a row, the Chicago metropolitan area leads the U.S. in foreign direct investment (FDI) according to the 2017 IBM Global Location Trends report. The annual report, which outlines the latest trends in corporate location selection, found that Chicago’s rank has risen a spot to fifth globally and is the only North American metro area in the global top 20.<sup>23</sup>

The companies employing the greatest number of workers in the Chicago MSA as of the end of 2017 are set forth below.

### LARGEST EMPLOYERS IN CHICAGO MSA<sup>24</sup> 2017

Employer	Number of Employees	Percentage of Total Employment
Advocate Health Care	19,049	1.48%
Northwestern Memorial Healthcare	16,667	1.29
University of Chicago	16,583	1.29
JPMorgan Chase	15,701	1.22
Amazon.com Inc.	13,240	1.03
United Continental Holdings, Inc.	12,994	1.01
Walgreens Boots Alliance, Inc.	12,751	0.99
Northwestern University	10,847	0.84
Presence Health	10,225	0.79
Wal-Mart Stores Inc.	10,220	0.79

## Top Taxpayers

The top property taxpayers in the City based on 2016 Equalized, Assessed Value (EAV) are shown in the following table.

### TOP TEN PROPERTY TAXPAYERS 2016<sup>25</sup> (\$ in thousands)

Rank	Property	2016 EAV	% of Total EAV
1	Willis Tower	\$ 406,464	0.55%
2	AON Building	252,409	0.34
3	Blue Cross Blue Shield Tower	250,676	0.34
4	Water Tower Place	226,358	0.31
5	Prudential Plaza	212,135	0.29
6	300 N. LaSalle	205,993	0.28
7	Franklin Center	204,322	0.28
8	Chase Plaza	203,125	0.27
9	Citadel Center	196,745	0.27
10	Three First National Plaza	191,736	0.26
Total		<u>\$2,349,963</u>	<u>3.19%</u>

As shown in the table, the top ten taxpayers account for less than 3.2 percent of the City’s total tax base.

## **Transportation**

According to statistics compiled by Airports Council International in 2017, O'Hare ranked sixth worldwide and second in the United States in terms of total passengers and Midway ranked 28<sup>th</sup>. O'Hare is also the 6<sup>th</sup> busiest cargo airport in the United States.<sup>26</sup> According to the Chicago Department of Aviation, as of November 2018, O'Hare and Midway had 76.8 and 20.8 million in total passenger volume, respectively. O'Hare supports substantial international service with international passengers constituting approximately 12 percent of total enplaned passengers in 2018.<sup>27</sup>

The Chicago Transit Authority operates the second largest public transportation system in the nation, with: 1,864 buses operating over 129 routes and 1,536 route miles, making 19,237 trips per day and serving 10,768 bus stops; 1,492 rail cars operating over eight routes and 224.1 miles of track, making 2,318 trips each day and serving 145 stations; and 1.6 million rides on an average weekday and over 479.4 million rides in 2017 (bus and train combined).<sup>28</sup>

## **Schools**

The Chicago Public School system is the third largest school district in the nation, serving approximately 361,314 students. CPS comprises 421 elementary schools, 92 high schools, 9 contract schools, and 121 charter school campuses.<sup>29</sup> City Colleges of Chicago operates seven colleges and serves over 80,000 students.<sup>30</sup>

## **Cultural Attractions**

Chicago is home to 56 museums, over 125 art galleries and over 20 neighborhood art centers. The City has 8,100 acres of green space with 580 parks and 26 beaches.<sup>31</sup>

## **Government**

The number of budgeted full-time equivalent positions of the City for the years 2010 through 2019 is included in the following table.

<b>CITY FULL-TIME EMPLOYEES<sup>32</sup></b>	
<b>2010—2019</b>	
<b>Year</b>	<b>Budgeted Full-Time Equivalent Positions</b>
2010	36,889
2011	36,448
2012	33,744
2013	33,555
2014	34,046
2015	34,129
2016	34,327
2017	35,655
2018	36,231
2019	36,562

## Housing Market

The monthly home sales and the median home sale prices for Chicago for the years 2012 through 2018 are shown in the following tables.

### CHICAGO MONTHLY HOME SALES<sup>33</sup> 2012—2018

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
January	1,123	1,485	1,383	1,295	1,363	1,575	1,438
February	1,250	1,378	1,361	1,448	1,528	1,529	1,530
March	1,664	1,894	1,819	2,118	2,099	2,546	2,332
April	1,816	2,331	2,210	2,386	2,628	2,647	2,698
May	2,125	2,762	2,390	2,700	2,980	3,046	3,034
June	2,332	2,623	2,761	3,110	3,321	3,380	3,168
July	2,164	2,838	2,664	2,989	2,780	2,699	2,793
August	2,293	2,797	2,414	2,629	2,844	2,791	2,716
September	1,906	2,352	2,187	2,358	2,398	2,355	2,010
October	2,076	2,231	2,082	2,109	2,047	2,109	2,098
November	1,798	1,800	1,632	1,615	1,937	1,959	1,840
December	1,849	2,080	1,992	2,029	1,974	2,058	1,698

### CHICAGO MEDIAN HOME SALE PRICES<sup>34</sup> 2012—2018

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
January	\$148,000	\$159,000	\$200,750	\$222,000	\$230,000	\$255,000	\$265,000
February	140,000	158,000	175,000	212,000	238,000	246,000	272,000
March	172,000	187,500	237,000	235,000	268,500	295,000	314,000
April	182,000	222,000	250,000	275,000	287,500	297,500	309,950
May	200,000	234,000	270,000	287,500	290,750	305,600	306,000
June	217,000	254,900	275,000	290,000	299,900	306,750	312,750
July	200,000	250,000	270,000	285,000	290,000	300,000	309,000
August	200,000	245,000	250,000	270,000	271,000	284,000	285,000
September	188,400	231,000	250,000	250,000	260,000	275,000	287,400
October	175,000	218,500	237,500	240,000	260,100	260,000	272,500
November	180,000	200,000	230,000	235,000	260,000	256,000	262,000
December	185,000	210,000	229,250	242,500	260,000	265,250	246,500

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<sup>1</sup> U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017," <http://factfinder.census.gov/bkmk/table/1.0/en/PEP/2017/GCTPEPANR.US23PR>

<sup>2</sup> U.S. Bureau of Economic Analysis, "MAGDP2 Gross domestic product (GDP) by metropolitan area 1," [https://apps.bea.gov/iTable/itable.cfm?reqid=70&step=30&isuri=1&major\\_area=5&area=16980&year=2017&tableid=501&category=2501&area\\_type=5&year\\_end=1&classification=naics&state=5&statistic=1&yearbegin=1&unit\\_of\\_measure=levels](https://apps.bea.gov/iTable/itable.cfm?reqid=70&step=30&isuri=1&major_area=5&area=16980&year=2017&tableid=501&category=2501&area_type=5&year_end=1&classification=naics&state=5&statistic=1&yearbegin=1&unit_of_measure=levels)

<sup>3</sup> Chicago Department of Aviation, "Monthly Operations, Passengers, Cargo Summary By Class, November 2018," <https://www.flychicago.com/SiteCollectionDocuments/Business/FactAndFigures/AirTraffic/1217%20ORD%20SUMMARY.pdf>

<sup>4</sup> U.S. Department of Transportation, "2017 Traffic Data for U.S. Airlines and Foreign Airlines U.S. Flights," <https://www.bts.gov/newsroom/2017-traffic-data-us-airlines-and-foreign-airlines-us-flights>

<sup>5</sup> Chicago Metropolitan Agency for Planning, "Metropolitan Chicago's Freight Cluster: A Drill-Down Report on Infrastructure, Innovation and Workforce," <http://www.cmap.illinois.gov/documents/10180/27214/CMAP-FreightReportFULL-07-11-12.pdf/622f29bf-572c-4b79-aff-110d880091a8>

<sup>6</sup> U.S. Bureau of Labor Statistics, "Chicago Area Economic Summary, Updated January 31, 2018," [http://www.bls.gov/regions/midwest/summary/blssummary\\_chicago.pdf](http://www.bls.gov/regions/midwest/summary/blssummary_chicago.pdf)

<sup>7</sup> Choose Chicago Research and Analysis, "Annual Report 2017," [https://pub.flowpaper.com/docs/http://res.cloudinary.com/simpleview/image/upload/v1526483804/clients/chicago/ChooseChicago\\_2017\\_AnnualReport\\_New\\_09fc5511-a3f8-4010-bd94-2cd9de14e1df.pdf](https://pub.flowpaper.com/docs/http://res.cloudinary.com/simpleview/image/upload/v1526483804/clients/chicago/ChooseChicago_2017_AnnualReport_New_09fc5511-a3f8-4010-bd94-2cd9de14e1df.pdf)

<sup>8</sup> U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017"

<sup>9</sup> U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017"

<sup>10</sup> U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017"

<sup>11</sup> U.S. Census Bureau, "2013-2017 American Community Survey 5-Year Estimates"

<sup>12</sup> U.S. Bureau of Economic Analysis, Local Area Personal Income last updated: November 15, 2018—new estimates for 2016; revised estimates for 2011-2016. <http://www.bea.gov>

<sup>13</sup> The Chicago-Naperville-Elgin Metropolitan Statistical Area comprises the following counties: Cook, DeKalb, DuPage, Grundy, Kane, Kendall, Lake, McHenry, and Will counties in Illinois; Jasper, Lake, Newton, and Porter counties in Indiana; and Kenosha County, Wisconsin.

<sup>14</sup> U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

<sup>15</sup> Bureau of Economic Analysis, "Regional Price Parities by Metropolitan Statistical Area,"

<sup>16</sup> U.S. Bureau of Labor Statistics, "Local Area Unemployment Statistics"

<sup>17</sup> U.S. Bureau of Labor Statistics, "Local Area Unemployment Statistics"

<sup>18</sup> U.S. Bureau of Labor Statistics, "Current Employment Statistics (National)," <http://www.bls.gov/web/empstat/ceseb1a.htm>

<sup>19</sup> U.S. Bureau of Labor Statistics, <http://www.bls.gov/regions/midwest/illinois.htm>.

<sup>20</sup> U.S. Bureau of Labor Statistics, [http://www.bls.gov/regions/midwest/il\\_chicago\\_md.htm](http://www.bls.gov/regions/midwest/il_chicago_md.htm)

<sup>21</sup> World Business Chicago, "Fortune 500 Headquarters in Chicago," <http://www.worldbusinesschicago.com/2017-fortune-500>.

<sup>22</sup> Site Selection Magazine, "Top Metropolitans of 2017," <https://siteselection.com/issues/2018/mar/top-metros-2017-repeat-defenders.cfm>

<sup>23</sup> IBM, "Global Locations Trends 2018 Annual Report," <https://www.ibm.com/downloads/cas/ND0GVZBP>

<sup>24</sup> Source: Reprinted with permission from the January 15, 2018 issue of Crain's Chicago Business, © 2018 Crain Communications Inc. All Rights Reserved.

<sup>25</sup> Source: Cook County Treasurer's Office, Cook County Assessor's Office.

<sup>26</sup> Airports Council International "2017 ACI Annual Worldwide Airport Traffic Report," <https://siteselection.com/issues/2018/mar/top-metros-2017-repeat-defenders.cfm>

<sup>27</sup> Chicago Department of Aviation Airport Budget Statistics, Monthly Operations, Passengers, Cargo Summary By Class <https://www.flychicago.com/SiteCollectionDocuments/Business/FactAndFigures/AirTraffic/1118%20ORD%20SUMMARY.pdf>

<sup>28</sup> Chicago Transit Authority, "CTA Facts at a Glance, Fall 2017." <http://www.transitchicago.com/about/facts.aspx>

<sup>29</sup> Chicago Public Schools, "Stats and Facts," [http://cps.edu/About\\_CPS/At-a-glance/Pages/Stats\\_and\\_facts.aspx](http://cps.edu/About_CPS/At-a-glance/Pages/Stats_and_facts.aspx)

<sup>30</sup> City Colleges of Chicago, "Fiscal Year 2017 Statistical Digest," <http://www.ccc.edu/Pages/StatisticalDigest.htm>

<sup>31</sup> Choose Chicago, "Chicago Fun Facts," <http://www.choosechicago.com/articles/view/chicago-fun-facts/452/>

<sup>32</sup> Source: City of Chicago 2017 CAFR for fiscal years 2010-2017 and the 2019 Budget Overview for fiscal years 2018 and 2019. Includes full time equivalent positions in grant related programs.

<sup>33</sup> Illinois Association of Realtors, "City of Chicago Monthly Housing Market Reports," <https://www.illinoisrealtors.org/marketstats/>

<sup>34</sup> Illinois Association of Realtors, "City of Chicago Monthly Housing Market Reports," <https://www.illinoisrealtors.org/marketstats/>

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**APPENDIX C**  
**CITY OF CHICAGO**  
**BASIC FINANCIAL STATEMENTS**  
**FOR THE YEAR ENDED DECEMBER 31, 2017**

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**Deloitte.**

# **City of Chicago**

**Basic Financial Statements,  
Required Supplementary Information,  
and Independent Auditors' Report  
as of and for the Year Ended  
December 31, 2017**



**Rahm Emanuel, Mayor**

Carole L. Brown, Chief Financial Officer  
Erin Keane, City Comptroller

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**CITY OF CHICAGO, ILLINOIS  
YEAR ENDED DECEMBER 31, 2017  
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## **INDEPENDENT AUDITORS' REPORT**

To the Honorable Rahm Emanuel, Mayor  
And Members of the City Council  
City of Chicago, Illinois

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Chicago, Illinois, (the "City") as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of the City's Pension Plans (the "Plans") which, in aggregate, represent 100 percent, 95 percent, and 100 percent, respectively, of the revenues, assets, and net position of the fiduciary funds, included in the aggregate remaining fund information. Those statements were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts included for the Plans, is based solely on the reports of the other auditors. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

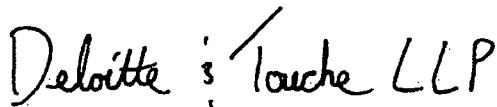
### **Opinions**

In our opinion, based on our audit and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Chicago, Illinois, as of December 31, 2017, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America and the respective budgetary comparison statements for the General Fund and Pension Special Revenue Fund on the budgetary basis of accounting.

### **Other Matters**

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule of Changes in the Net Pension Liability and Related Ratios, Schedule of Contributions, and Schedule of Other Postemployment Benefits Funding Progress as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We and other auditors have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

A handwritten signature in black ink that reads "Deloitte & Touche LLP". The signature is cursive and fluid, with "Deloitte" and "Touche" connected by a diagonal line, and "LLP" written below "Touche".

June 29, 2018

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

---

**Management's Discussion and Analysis**

As management of the City of Chicago, Illinois (City) we offer readers of the City's Comprehensive Annual Financial Report (CAFR) this narrative overview and analysis of the financial activities of the City for the fiscal year ended December 31, 2017. We encourage the readers to consider the information presented here in conjunction with information contained within this report.

**2017 Financial Highlights**

- Liabilities and Deferred Inflows of the City, in the government-wide financial statements, exceeded its assets and deferred outflows at the close of the most recent fiscal year by \$28,368.1 million (*net deficit*). The net deficit is composed of \$3,314.9 million in net investment in capital assets and \$3,284.1 million in net position restricted for specific purposes offset by an unrestricted deficit of \$34,967.1 million. The net deficit increased in 2017 by \$938.2 million due to expenses being greater than revenues for 2017.
- The City's total assets increased by \$3,593.8 million. This increase primarily relates to a \$1,109.2 million increase in capital assets as a result of the City's capital improvement program, and a \$1,210.6 million and \$1,014.8 million increase in cash, cash equivalents and investments in the proprietary and governmental funds, respectively due to issuance of debt.
- The City's deferred outflows and total liabilities decreased by \$1,668.5 million and \$4,634.8 million, respectively, and the City's deferred inflows increased by \$7,498.3 million. These were primarily related to the decrease in the net pension liability as a result of the changes under Public Act 100-0023 (P.A. 100-0023) which requires increased future contributions to the Municipal Employees' Annuity Benefit Fund of Chicago (Municipal Employees') and the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Laborers'). The increase in future required contributions increased the discount rate used to determine the total pension liability and therefore decreased the pension liability.
- Total Revenues and Other Financing Sources (Uses), in the fund financial statements, during 2017 were \$8,057.0 million, an increase of \$714.7 million (9.7%) from 2016, primarily due to the increased proceeds from debt.
- The General Fund ended 2017 with a total Fund Balance of \$288.4 million, of which \$155.5 million was Unassigned. Total Fund Balance increased from 2016 primarily because Revenues and Other Financing Sources were greater than Expenditures and Other Financing Uses by \$16.6 million.
- The City's General Obligation Bonds and notes outstanding increased by \$513.6 million during the current fiscal year. The proceeds from the issuance of General Obligation Bonds were used to fund capital projects, refund or pay interest on all or a portion of certain outstanding general obligation bonds, fund capitalized interest and pay costs of issuance.
- The General Fund expenditures on a budgetary basis were \$96.1 million less than budgeted as a result of variances in general government expenditures primarily due to lower than anticipated personnel costs.
- During 2017, the City entered into an Assignment, Purchase and Sale Agreement with the newly-formed Sales Tax Securitization Corporation (STSC). The STSC is a special purpose not-for-profit, non-stock corporation which provides benefits exclusively to the City, and as a result, is presented as a blended component unit of the City. The STSC issued \$743.7 million in bonds, the proceeds of which were applied by the City to refund certain outstanding City bonds.

**Overview of the Basic Financial Statements**

This discussion and analysis is intended to serve as an introduction to the City's basic financial statements, which include the following components: (1) government-wide financial statements, (2) fund financial statements, and (3) notes to the basic financial statements. This report also contains required supplementary information and other supplementary information in addition to the basic financial statements. These components are described below:

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

---

**Government-wide financial statements.** The *government-wide financial statements* are designed to provide readers with a broad overview of the City's finances, using accounting methods similar to those used by private-sector companies. The statements provide both short-term and long-term information about the City's financial position, which assists in assessing the City's economic condition at the end of the fiscal year. These financial statements are prepared using the flow of economic resources measurement focus and the accrual basis of accounting. This basically means such statements follow methods that are similar to those used by most businesses. They take into account all revenues and expenses connected with the fiscal year even if cash involved has not been received or paid.

The government-wide financial statements include two statements:

The *statement of net position* presents information on all of the City's assets, deferred outflows, liabilities, and deferred inflows with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the City is improving or deteriorating, respectively. To assess the overall health of the City, the reader should consider additional non-financial factors such as changes in the City's property tax base and the condition of the City's infrastructure.

The *statement of activities* presents information showing how the government's net position changed during each fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of the related cash flows*. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future periods (for example, uncollected taxes, and earned but unused vacation). This statement also presents a comparison between direct expenses and program revenues for each function of the City.

Both of the government-wide financial statements distinguish functions of the City that are principally supported by taxes and intergovernmental revenues (*governmental activities*) from other functions that are intended to recover all or a significant portion of their costs through user fees and charges (*business-type activities*). The governmental activities of the City include general government, public safety, streets and sanitation, transportation, health, and cultural and recreation. The business-type activities of the City include water, sewer, tollway and airport services.

The government-wide financial statements present information about the City as a primary government, which includes the Chicago Public Library. The government-wide financial statements can be found immediately following this management's discussion and analysis.

**Fund financial statements.** A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The City, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All of the funds of the City can be divided into three categories: governmental funds, proprietary funds, and fiduciary funds.

**Governmental funds.** *Governmental funds* are used to account for essentially the same functions reported as *governmental activities* in the government-wide financial statements. However, unlike the government-wide financial statements, governmental fund financial statements focus on *near-term inflows and outflows of spendable resources*, as well as on *balances of spendable resources* available at the end of a fiscal year. Such information may be useful in evaluating a government's near-term financing requirements.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for *governmental funds* with similar information presented for *governmental activities* in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances provide a reconciliation to facilitate the comparison between *governmental funds* and *governmental activities*.

The City maintains 22 individual governmental funds. Information for the eight funds that qualify as major is presented separately in the governmental fund balance sheet and in the governmental fund statement of revenues, expenditures, and changes in fund balances. The eight major governmental funds are as follows: the General Fund,

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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the Federal, State and Local Grants Fund, the Special Taxing Areas Fund, the Service Concession and Reserve Fund, the Bond, Note Redemption and Interest Fund, the STSC Debt Service Fund, the Community Development and Improvement Projects Fund, and the Pension Fund. Data from the other governmental funds is combined into a single, aggregated presentation.

The City adopts an annual appropriation budget for its general and certain special revenue funds on a non-GAAP budgetary basis. A budgetary comparison statement has been provided for the General Fund to demonstrate compliance with this budget. The basic governmental fund financial statements can be found immediately following the government-wide statements.

**Blended Component Unit.** The STSC component unit, despite being legally separate from the City, is reported as if it were part of the City because, in addition to being financially accountable for it, the STSC provides services exclusively to the City. The STSC blended component unit is reported as the STSC Debt Service Fund and a Nonmajor Special Revenue Fund.

**Proprietary funds.** These funds are used to show activities that operate more like those of commercial enterprises. Because these funds charge user fees for services provided to outside customers including local governments, they are known as enterprise funds. Proprietary funds, like government-wide statements, use the accrual basis of accounting and provide both long- and short-term financial information. There is no reconciliation needed between the government-wide financial statements for business-type activities and the proprietary fund financial statements. The City uses five enterprise funds to account for its water, sewer, Skyway, and two airports operations.

Proprietary funds provide the same type of information as the government-wide financial statements, but provide more detail. The proprietary fund financial statements provide separate information for the Water Fund, Sewer Fund, Chicago Skyway Fund, Chicago-O'Hare International Airport Fund and the Chicago Midway International Airport Fund. All the proprietary funds are considered to be major funds of the City. The basic proprietary fund financial statements can be found immediately following the governmental fund financial statements.

**Fiduciary funds.** Fiduciary funds are used primarily to account for resources held for the benefit of parties outside the primary government. The City is the trustee, or fiduciary, for its employees' pension plans. It is also responsible for other assets that, because of a trust arrangement can be used only for the trust beneficiaries. The City also uses fiduciary funds to account for transactions for assets held by the City as agent for various entities. The City is responsible for ensuring that the assets reported in these funds are used for their intended purposes. Fiduciary funds are *not* reflected in the government-wide financial statements because the resources of those funds are not available to support the City's own programs. All of the City's fiduciary activities are reported in a separate statement of fiduciary net position and a statement of changes in fiduciary net position. The accounting used for fiduciary funds is much like that used for proprietary funds. The fiduciary fund basic financial statements can be found immediately following the proprietary fund financial statements.

**Notes to the basic financial statements.** The notes provide additional information that is essential for a full understanding of data provided in the government-wide and fund financial statements. The notes to the basic financial statements can be found immediately following the fiduciary fund basic financial statements.

**Financial Analysis of the City as a whole**

**Net Position.** As noted earlier, net position may serve over time as a useful indicator of a government's financial position. In the case of the City, liabilities and deferred inflows exceeded assets by \$28,368.1 million at December 31, 2017. Of this amount, \$3,314.9 million represents the City's investment in capital assets (land, buildings, roads, bridges, etc.) less any related debt used to acquire those assets that is still outstanding. The City uses these capital assets to provide services to citizens; consequently, these assets are not available for future spending. Although the City's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities and deferred inflows.

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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An additional portion of the City's net position, \$3,284.1 million, represents resources that are subject to external restrictions on how they may be used.

**City of Chicago, Illinois**  
**Summary Statement of Net Position**  
**(in millions of dollars)**

	Governmental Activities		Business-type Activities		Total	
	2017	2016	2017	2016	2017	2016
Current and other assets .....	\$ 6,639.4	\$ 5,451.0	\$ 6,112.4	\$ 4,816.2	\$ 12,751.8	\$ 10,267.2
Capital assets .....	8,745.6	8,676.3	16,437.5	15,397.6	25,183.1	24,073.9
Total Assets .....	15,385.0	14,127.3	22,549.9	20,213.8	37,934.9	34,341.1
Deferred outflows .....	4,089.9	5,667.9	1,194.9	1,285.4	5,284.8	6,953.3
Total .....	19,474.9	19,795.2	23,744.8	21,499.2	43,219.7	41,294.4
Long-term liabilities outstanding .....	37,411.5	43,065.4	18,771.4	18,351.4	56,182.9	61,416.8
Other liabilities .....	2,364.5	1,947.5	1,521.5	1,339.4	3,886.0	3,286.9
Total Liabilities .....	39,776.0	45,012.9	20,292.9	19,690.8	60,068.9	64,703.7
Deferred Inflows .....	8,413.7	2,254.5	3,105.2	1,766.1	11,518.9	4,020.6
Net Position:						
Net investment in capital assets .....	(551.1)	(65.5)	3,866.0	3,373.1	3,314.9	3,307.6
Restricted .....	2,416.1	2,269.6	868.0	879.9	3,284.1	3,149.5
Unrestricted .....	(30,579.8)	(29,676.3)	(4,387.3)	(4,210.7)	(34,967.1)	(33,887.0)
Total net (deficit) position .....	<u>\$ (28,714.8)</u>	<u>\$ (27,472.2)</u>	<u>\$ 346.7</u>	<u>\$ 42.3</u>	<u>\$ (28,368.1)</u>	<u>\$ (27,429.9)</u>

**Governmental Activities.** Net position of the City's governmental activities decreased \$1,242.6 million to a deficit of \$28,714.8 million primarily due to expenses being greater than revenues and transfers in for 2017. A significant portion of net position is either restricted as to the purpose they can be used for or they are classified as net investment in capital assets (buildings, roads, bridges, etc.). Consequently, unrestricted net position showed a \$30,579.8 million deficit at the end of this year. This deficit does not mean that the City does not have the resources available to pay its bills next year. Rather, it is the result of having long-term commitments that are greater than currently available resources. Specifically, the City did not include in past annual budgets the full amounts needed to finance future liabilities arising from personnel, property, pollution and casualty claims (\$1,047.8 million) and Municipal Employees', Laborers', Policemen's and Firemen's net pension liability and other post-employment benefits (\$25,246.6 million). The City will include these amounts in future years' budgets as they come due. In addition, the deferred inflow balance of \$1,513.2 million from concession service agreements will be amortized into income over the life of such agreements.

Revenues for all governmental activities in 2017 were \$6,935.4 million, an increase of \$196.0 million from 2016. Over half of the City's revenues were derived from taxes which increased by \$190.8 million (4.7%). Total tax revenue included an increase in property taxes received of \$62.7 million (5.0%).

Expenses for governmental activities in 2017 were \$8,180.2 million, a decrease of \$1,998.1 million (19.6%) over 2016. This decrease is primarily due to a decrease in pension expense as a result of the changes under P.A. 100-0023 which requires increased future contributions to Municipal Employees' and Laborers'. The increase in future required contributions increased the discount rate used to determine the total pension liability and decreased the current year pension expense. The amount that taxpayers paid for these governmental activities through City taxes was \$4,286.0 million. Some of the cost was paid by those who directly benefited from the programs (\$900.3 million), or by other governments and organizations that subsidized certain programs with grants and contributions (\$678.7 million).

The City paid \$1,070.4 million for the "public benefit" portion with other revenues such as state aid, interest and miscellaneous income.

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

Although total net position of business-type activities was \$346.7 million, these resources cannot be used to make up for the deficit in net position in governmental activities. The City generally can only use this net position to finance the continuing operations of the water, sewer, Skyway, and airports activities.

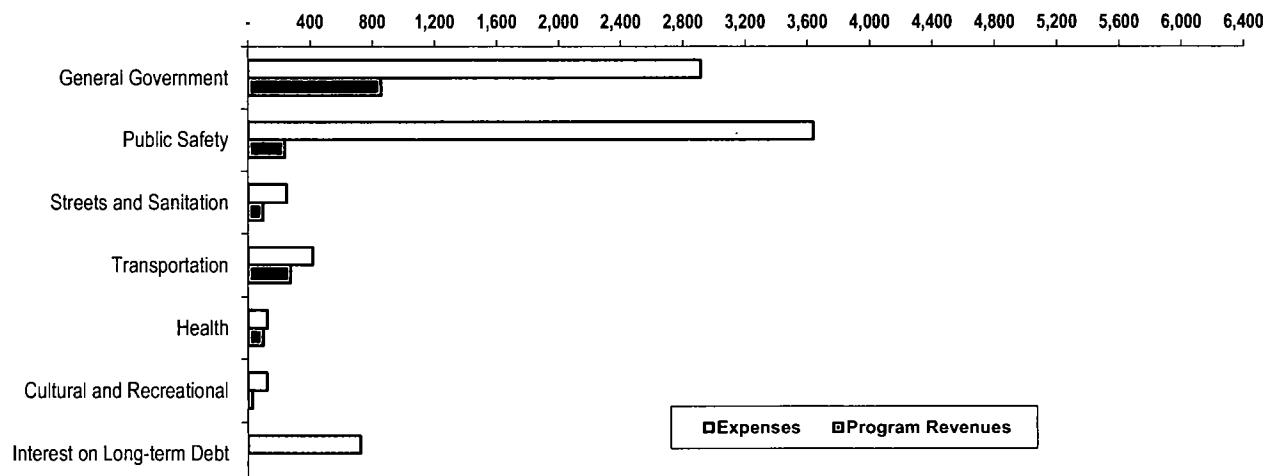
**City of Chicago, Illinois**  
**Changes in Net Position**  
**Years Ended December 31,**  
**(in millions of dollars)**

	Governmental Activities		Business-type Activities		Total	
	2017	2016	2017	2016	2017	2016
<b>Revenues and Other Transfers:</b>						
Program Revenues:						
Licenses, Permits, Fines and						
Charges for Services .....	\$ 900.3	\$ 879.7	\$ 2,527.8	\$ 2,502.1	\$ 3,428.1	\$ 3,381.8
Operating Grants and Contributions .....	473.2	516.7	-	-	473.2	516.7
Capital Grants and Contributions .....	205.5	221.5	120.0	115.1	325.5	336.6
General Revenues:						
Property Taxes .....	1,327.2	1,264.5	-	-	1,327.2	1,264.5
Other Taxes .....	2,958.8	2,830.7	-	-	2,958.8	2,830.7
Grants and Contributions not						
Restricted to Specific Programs .....	762.0	782.0	-	-	762.0	782.0
Other .....	308.4	244.3	83.6	48.5	392.0	292.8
Total Revenues .....	<u>6,935.4</u>	<u>6,739.4</u>	<u>2,731.4</u>	<u>2,665.7</u>	<u>9,666.8</u>	<u>9,405.1</u>
<b>Expenses:</b>						
General Government .....	2,914.7	4,549.2	-	-	2,914.7	4,549.2
Public Safety .....	3,636.1	4,266.1	-	-	3,636.1	4,266.1
Streets and Sanitation .....	247.8	257.0	-	-	247.8	257.0
Transportation .....	414.0	378.8	-	-	414.0	378.8
Health .....	124.1	116.7	-	-	124.1	116.7
Cultural and Recreational .....	121.5	114.7	-	-	121.5	114.7
Interest on Long-term Debt .....	722.0	495.8	-	-	722.0	495.8
Water .....	-	-	581.6	816.0	581.6	816.0
Sewer .....	-	-	293.0	350.4	293.0	350.4
Midway International Airport .....	-	-	285.0	320.0	285.0	320.0
Chicago-O'Hare International Airport .....	-	-	1,256.7	1,330.2	1,256.7	1,330.2
Chicago Skyway .....	-	-	8.5	8.7	8.5	8.7
Total Expenses .....	<u>8,180.2</u>	<u>10,178.3</u>	<u>2,424.8</u>	<u>2,825.3</u>	<u>10,605.0</u>	<u>13,003.6</u>
Change in Net Position Before Transfers .....	<u>(1,244.8)</u>	<u>(3,438.9)</u>	<u>306.6</u>	<u>(159.6)</u>	<u>(938.2)</u>	<u>(3,598.5)</u>
Transfers In (Out) .....	<u>2.2</u>	<u>2.5</u>	<u>(2.2)</u>	<u>(2.5)</u>	<u>-</u>	<u>-</u>
Change in Net Position .....	<u>(1,242.6)</u>	<u>(3,436.4)</u>	<u>304.4</u>	<u>(162.1)</u>	<u>(938.2)</u>	<u>(3,598.5)</u>
Net (Deficit) Position, Beginning of Year .....	<u>(27,472.2)</u>	<u>(24,035.8)</u>	<u>42.3</u>	<u>204.4</u>	<u>(27,429.9)</u>	<u>(23,831.4)</u>
Net (Deficit) Position, End of Year .....	<u>\$ (28,714.8)</u>	<u>\$ (27,472.2)</u>	<u>\$ 346.7</u>	<u>\$ 42.3</u>	<u>\$ (28,368.1)</u>	<u>\$ (27,429.9)</u>

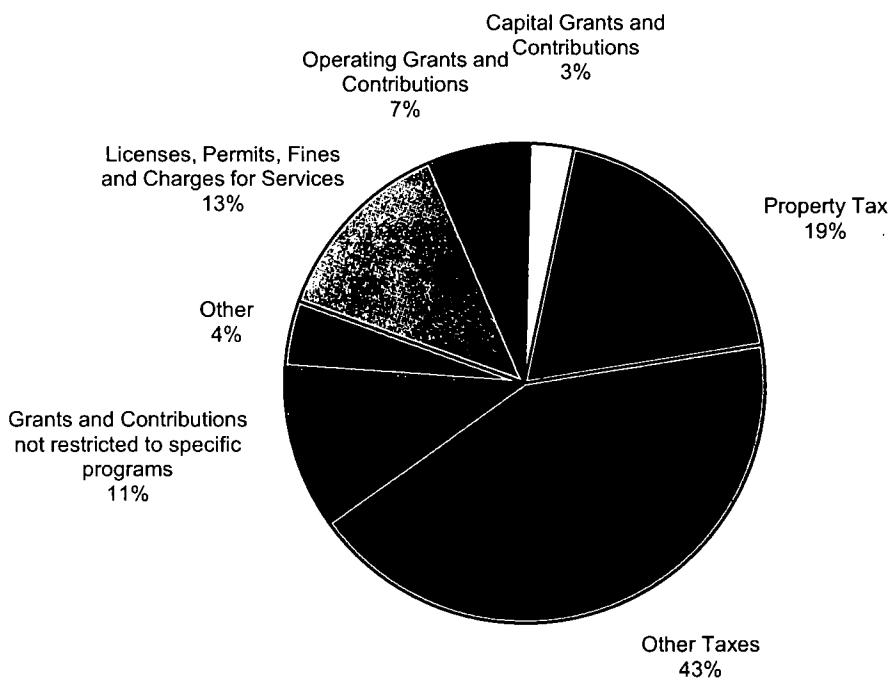
**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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**Expenses and Program Revenues - Governmental Activities**  
 (in millions of dollars)



**Revenues by Source - Governmental Activities**



**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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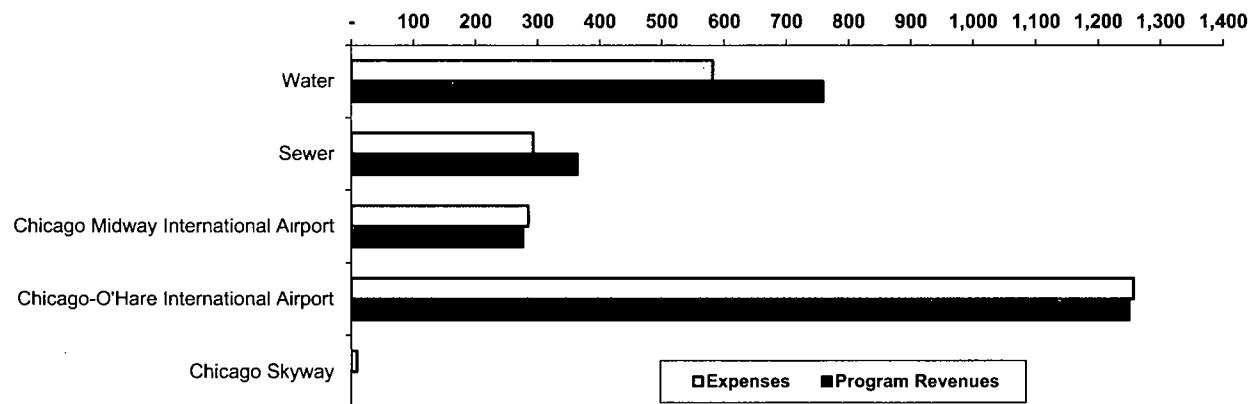
***Business-type Activities.*** Total Revenues of the City's business-type activities increased by \$65.7 million in 2017 mostly from an increase in charges for services, rental income, and other general revenues.

- The Water Fund's total operating revenues decreased by \$2.4 million (0.3%) from 2016 primarily due to a decrease in net water fees of \$6.2 million resulting from the continued conversion from non-metered to metered accounts, offset by an increase in penalties and other revenues related to water fees of \$3.8 million. Operating expenses before depreciation and amortization for the year ended 2017 decreased by \$136.2 million (25.3%) from the year ended 2016 primarily due to a decrease in pension expense of \$132.9 million as a result of the changes under P.A. 100-0023 which requires increased future contributions to Municipal Employees' and Laborers'. The increase in future required contributions increased the discount rate used to determine the total pension liability and decreased the current year pension expense.
- The Sewer Fund's total operating revenues decreased in 2017 by \$11.3 million (3.1%) primarily due to the conversion of non-metered customers to metered customers. There was a rate increase of 1.83% effective June 1, 2017. Operating expenses before depreciation and amortization for 2017 decreased \$64.4 million (28.3%) from 2016 primarily due to a decrease in pension expense of \$70.5 million as a result of the changes under P.A. 100-0023 which requires increased future contributions to Municipal Employees' and Laborers'. The increase in future required contributions increased the discount rate used to determine the total pension liability and decreased the current year expense.
- Chicago Midway International Airport's total operating revenues for 2017 increased by \$12.8 million (7.0%) from 2016 primarily due to increases in the landing fees and terminal rental rates to pay for capital development of the airport, increases in concession revenues due to a new concessions management contract that the Airport entered into in May 2017 with Midway Partnership LLC, and parking revenues due to a new rate structure implemented in January 2017. Operating expenses before depreciation and amortization decreased by \$11.6 million (6.4%) compared to 2016 primarily due to a decrease in pension expense as a result of the changes under P.A. 100-0023 which requires increased future contributions to Municipal Employees' and Laborers'. The increase in future required contributions increased the discount rate used to determine the total pension liability and decreased the current year pension expense. This was offset by an increase in professional and engineering services for pre-construction (planning) related services associated with the Midway Modernization Program.
- Chicago O'Hare International Airport's total operating revenues for 2017 increased by \$28.3 million (3.0%) compared to 2016 primarily due to increases in concession revenues, parking revenues due to a new rate structure implemented in January 2017, and rents. Operating expenses before depreciation, amortization and loss on capital asset disposals decreased by \$98.7 million (13.1%) compared to 2016 primarily due to a decrease in pension expense as a result of the changes under P.A. 100-0023 which requires increased future contributions to Municipal Employees' and Laborers'. The increase in future required contributions increased the discount rate used to determine the total pension liability and decreased the current year pension expense. This was offset by an increase in professional and engineering services primarily due to the O'Hare Use and Lease Agreement related Terminal Area Plan development negotiations.
- The Chicago Skyway was leased for 99 years to a private company. The agreement granted the company the right to operate the Skyway and to collect toll revenue during the term of the agreement. The City received an upfront payment of \$1.83 billion of which \$446.3 million was used to advance refund all of the outstanding Skyway bonds. The upfront payment is being amortized into nonoperating revenue over the period of the lease (\$18.5 million annually).

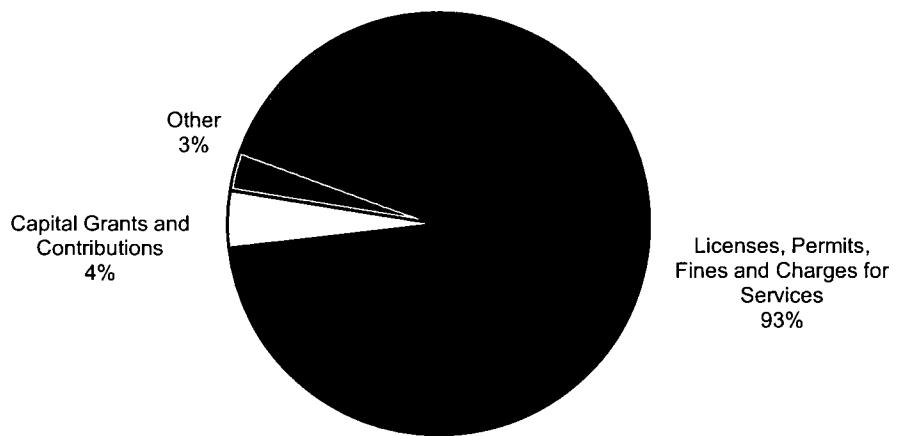
**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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**Expenses and Program Revenues - Business-type Activities**  
(in millions of dollars)



**Revenues by Source - Business-type Activities**



**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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**Financial Analysis of the City's Funds**

As noted earlier, the City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

**Governmental funds.** The focus of the City's *governmental funds* is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the City's financing requirements. In particular, *unassigned fund balance* may serve as a useful measure of a government's net resources available for spending at the end of the fiscal year.

At December 31, 2017, the City's governmental funds reported combined ending fund balances of \$1,622.0 million, an increase of \$713.7 million in comparison with the prior year. Of this total amount, \$790.5 million was committed to specific expenditures, \$106.9 million was assigned to anticipated uses, a deficit of \$1,973.9 million was unassigned, \$1,903.5 million was restricted in use by legislation, and \$795.0 million was nonspendable.

The General Fund is the chief operating fund of the City. At the end of the current fiscal year, the unassigned fund balance of the General Fund was \$155.5 million with a total fund balance of \$288.4 million. As a measure of the General Fund's liquidity, it may be helpful to compare both unassigned fund balance and total fund balance to total fund expenditures. Total General Fund balance represents 8.3% of total General Fund expenditures. The fund balance of the City's General Fund increased by approximately \$18.8 million during the current fiscal year due to higher revenues and lower expenses for certain categories.

The Federal, State and Local Grants Fund has a total deficit fund balance of \$241.4 million. The deficit is \$1.5 million lower than 2016 primarily due to more timely reimbursement of expenditures.

The Special Taxing Areas Fund has a total fund balance of \$1,347.3 million, which is all restricted to specific expenditures.

The Service Concession and Reserve Fund accounts for deferred inflows from nonbusiness type long-term concession and lease transactions and has \$668.3 million committed to specific expenditures. The unassigned deficit of \$1,513.2 million results from the deferred inflows from long-term asset leases.

The Bond, Note Redemption and Interest Fund has a total fund deficit of \$329.0 million. This is \$596.8 million lower than 2016, primarily due to the refunding of certain outstanding City bonds.

The STSC Debt Service Fund has a total fund balance of \$795.1 million, of which \$769.1 million is nonspendable and \$26.0 million is restricted. The fund balance will be used for future debt service payments for certain outstanding bonds.

The Community Development and Improvement Projects Fund has a total fund balance of \$346.0 million. This is \$301.0 million higher than 2016 primarily due to an increase in bond proceeds.

**Changes in fund balance.** The fund balance for the City's governmental funds increased by \$713.7 million in 2017. This includes an increase in inventory of \$2.2 million.

**Proprietary funds.** The City's proprietary funds provide the same type of information found in the government-wide financial statements, but in more detail.

Unrestricted net position of the Water, Sewer, Chicago Skyway, Chicago-O'Hare International Airport, and Chicago Midway International Airport Funds at the end of the year amounted to a deficit of \$4,387.3 million. The unrestricted net position deficit increased by \$176.6 million primarily due to an increase in the accrued liabilities in the Water Fund for IEPA loan activity. Other factors concerning the finances of these five funds have already been addressed in the discussion of the City's business-type activities.

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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**General Fund Budgetary Highlights**

The City's 2017 Original General Fund Budget of \$3,780.2 million was approved by City Council on November 16, 2016. The Final General Fund Budget of \$3,796.6 million was approved by City Council on February 22, 2017. The Final Budget included an additional \$16.4 million of prior year available resources, which represented unexpended funds from an earlier property tax rebate program which was authorized as part of the 2016 Budget. General Fund revenues ended the year \$56.9 million under the 2017 Final General Fund Budget primarily as a result of not using \$53 million of budgeted prior reappropriations authorized by a series of amendments to the 2017 Original General Fund Budget. Expenditures were \$96.1 million less than budgeted amounts as a result of favorable variances in general government expenditures. Additional information on the City's budget can be found in Note 3 under Stewardship, Compliance and Accountability within this report.

**Capital Asset and Debt Administration**

**Capital Assets.** The City's capital assets for its governmental and business-type activities as of December 31, 2017 amount to \$25,183.1 million (net of accumulated depreciation). These capital assets include land, buildings and system improvements, machinery and equipment, roads, highways and bridges, and property, plant and equipment.

Major capital asset events during the current fiscal year included the following:

- During 2017, the City completed \$412.0 million in infrastructure projects including \$202.3 million in street construction and resurfacing projects, \$126.4 million in street lighting and transit projects, and \$83.3 million in bridge and viaduct reconstruction. At year end, infrastructure projects still in process had expenses totaling nearly \$665.8 million.
- At the end of 2017, the Water Fund had \$4,467.3 million invested in utility plant, net of accumulated depreciation. During 2017, the Water Fund expended \$425.8 million on capital activities. This included \$5.1 million for structures and improvements, \$124.1 million for distribution plant, \$11.4 million for equipment, and \$285.1 million for construction in progress. During 2017, net completed projects totaling \$219.6 million were transferred from construction in progress to applicable capital accounts. The major completed projects were installation and replacement of water mains (\$124.5 million), meter save program (\$24.9 million), and conversion of the Springfield pumping station from steam to electric power (\$67.4 million).
- At the end of 2017, the Sewer Fund had \$2,576.1 million invested in utility plant, net of accumulated depreciation. During 2017, the Sewer Fund had capital additions being depreciated of \$144.3 million, and completed projects totaling \$9.1 million were transferred from construction in progress to applicable facilities and structures capital accounts. The 2017 Sewer Main Replacement Program completed 22.3 miles of sewer mains and 40.7 miles of relining of existing sewer mains.
- At the end of 2017, Chicago-Midway International Airport had \$1,167.1 million invested in net capital assets. During 2017, the Airport had additions of \$35.9 million related to capital activities. This included \$0.8 million for land acquisition and the balance of \$35.1 million for construction projects relating to runway rehabilitation and parking and security improvements. During 2017, completed projects totaling \$14.2 million were transferred from construction in progress to applicable buildings and other facilities capital accounts. These major completed projects were related to runway and taxi improvements, roads, and sidewalks.
- At the end of 2017, Chicago-O'Hare International Airport had \$8.0 billion invested in net capital assets. During 2017, the Airport had additions of \$889.2 million related to capital activities. This included \$0.2 million for land acquisition and the balance of \$889.0 million for construction in progress related to new runway construction projects (Runway 9C-27C) and associated taxiways, central deicing pad and construction of the Consolidated Rental Car Facility and Automated Transit System extension. During 2017, completed projects totaling \$189.4 million were transferred from construction in progress to applicable buildings and other facilities capital accounts. These major completed projects were related to runway and taxi improvements, electrical system upgrades, parking facilities heating and refrigeration system enhancements, and security and terminal improvements.

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

**City of Chicago, Illinois**  
**Capital Assets (net of depreciation)**  
**(in millions of dollars)**

	<b>Governmental</b>		<b>Business-type</b>		<b>Total</b>	
	<b>Activities</b>	<b>2017</b>	<b>Activities</b>	<b>2017</b>	<b>2016</b>	<b>2017</b>
Land .....	\$ 1,399.8	\$ 1,397.3	\$ 1,028.7	\$ 1,027.8	\$ 2,428.5	\$ 2,425.1
Works of Art and Historical Collections .....	47.0	46.0	-	-	47.0	46.0
Construction in Progress .....	694.0	741.0	1,873.7	1,045.0	2,567.7	1,786.0
Buildings and Other Improvements .....	1,534.6	1,585.4	13,174.9	13,028.0	14,709.5	14,613.4
Machinery and Equipment .....	285.0	239.7	360.2	296.8	645.2	536.5
Infrastructure .....	4,785.2	4,666.8	-	-	4,785.2	4,666.8
<b>Total</b> .....	<b>\$ 8,745.6</b>	<b>\$ 8,676.2</b>	<b>\$ 16,437.5</b>	<b>\$ 15,397.6</b>	<b>\$ 25,183.1</b>	<b>\$ 24,073.8</b>

Information on the City's capital assets can be found in Note 7 Capital Assets in this report.

**Debt.** At the end of the current fiscal year, the City had \$9,349.4 million in General Obligation Bonds and \$337.2 million in General Obligation Certificates and Other Obligations outstanding. Other outstanding long-term debt is as follows: \$743.7 million in Sales Tax Securitization Corporation Bonds (STSC Bonds); \$254.2 million in Motor Fuel Tax Revenue Bonds; \$27.9 million in Tax Increment Financing Bonds; and \$14,664.1 million in Enterprise Fund Bonds and long-term obligations. For more detail, refer to Note 9 Long-term Obligations in the Basic Financial Statements.

**General Obligation and Revenue Bonds**  
**(in millions of dollars)**

	<b>Governmental</b>		<b>Business-type</b>		<b>Total</b>	
	<b>Activities</b>	<b>2017</b>	<b>Activities</b>	<b>2017</b>	<b>2016</b>	<b>2017</b>
General Obligation .....	\$ 9,686.6	\$ 9,173.0	\$ -	\$ -	\$ 9,686.6	\$ 9,173.0
Tax Increment .....	27.9	33.5	-	-	27.9	33.5
Revenue Bonds .....	254.2	766.6	14,664.1	13,203.3	14,918.3	13,969.9
STSC Bonds .....	743.7	-	-	-	743.7	-
<b>Total</b> .....	<b>\$ 10,712.4</b>	<b>\$ 9,973.1</b>	<b>\$ 14,664.1</b>	<b>\$ 13,203.3</b>	<b>\$ 25,376.5</b>	<b>\$ 23,176.4</b>

During 2017, the City and the STSC issued the following:

**General Obligation Bonds:**

- General Obligation Bonds, Project and Refunding Series 2017A and Taxable Project Series 2017B (\$1,160.3 million).

**Enterprise Fund Revenue Bonds and Notes:**

- Chicago – O'Hare International Airport General Commercial Paper Notes (\$102.2 million).
- Chicago – O'Hare International General Airport Senior Lien Revenue Bonds, Series 2016D (Non-AMT), Series 2016E (Non-AMT), Series 2016F (Non- AMT) and Series 2016G (AMT) (\$1,117.2 million).

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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- Chicago – O'Hare International General Airport Senior Lien Revenue and Revenue Refunding Bonds, Series 2017A (Non-AMT), Series 2017B (Non-AMT), Series 2017C (Non-AMT) and Series 2017D (AMT) (\$812.5 million).
- Second Lien Water Revenue Refunding Bonds, Series 2017 (\$199.4 million) and 2017-2 (\$235.3 million).
- Second Lien Wastewater Revenue and Revenue Refunding Bonds, Series 2017 A&B (\$396.1 million).

**Sales Tax Securitization Corporation Bonds:**

- Sales Tax Securitization Bonds Refunding Series 2017A and Taxable Series 2017B & C (\$743.7 million).

At December 31, 2017 the City had credit ratings with each of the four major rating agencies as follows:

Rating Agency	Moody's	Standard & Poors	Fitch	Kroll
General Obligation:				
City	Ba1	BBB+	BBB-	BBB+
Revenue Bonds:				
O'Hare Airport:				
Senior Lien General Airport Revenue Bonds	A2	A	A	A+
Senior Lien Passenger Facility Charge (PFC)	A2	A	A	NR
Customer Facility Charge (CFC)	Baa1	BBB	NR	NR
Midway Airport:				
First Lien	A2	A	NR	NR
Second Lien	A3	A	A	A
Water:				
First Lien	Baa1	A+	AA	NR
Second Lien	Baa2	A	AA-	AA
Wastewater:				
First Lien	Baa2	A+	NR	NR
Second Lien	Baa3	A	AA-	AA-
Sales Tax	Ba1	AA	BBB-	AA+
Motor Fuel Tax	Ba1	BB+	BBB-	NR

In February 2017, Fitch Ratings (Fitch) downgraded the rating of the Motor Fuel Tax revenue bonds from BBB to BBB-, with a negative outlook.

In May 2017, Fitch downgraded ratings of the Senior Lien Water revenue bonds from AA+ to AA, with a negative outlook.

In May 2017, Fitch downgraded ratings of the Second Lien Water revenue bonds from AA to AA-, with a negative outlook.

In May 2017, Fitch downgraded ratings of the Senior Lien Wastewater Transmission revenue bonds from AA to AA-, with a negative outlook.

In June 2017, S&P downgraded the rating of the Motor Fuel Tax revenue bonds from BBB- to BB+ with a negative outlook.

See Subsequent Events in the footnotes for ratings changes in 2018.

**CITY OF CHICAGO, ILLINOIS**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**YEAR ENDED DECEMBER 31, 2017**

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**Economic Factors and Next Year's Budgets and Rates**

Regional, national, and global economies play a major role in the City's finances and economic growth. In 2017, the unemployment rate in the Chicago metropolitan area was 4.9%, marking the lowest rate since the Recession. Across the Chicagoland area and in Chicago, home prices continued to rise. In Chicago, the median home prices increased to \$285,000, which is a 4.8% increase over the 2016 median sale price. Additionally, the number of homes sold in Chicago increased by 1.8%. Tourism and business travel to Chicago increased by 2.5% over 2016 levels, reaching 55.2 million visitors in 2017. The Chicago tourism industry supported an estimated 146,500 jobs in 2017, which is a 17.0% increase since 2011.

The City's 2018 General Fund Budget, totaling \$3,852.5 million, was approved by a 47 to 3 vote of City Council on November 21, 2017. The 2018 budget closed an operating budget deficit of \$114.2 million through a combination of reforms, spending cuts, and revenue growth. The 2018 budget includes a \$5 million deposit into the City's operating liquidity fund, which is part of the City's practice of adding to its budget stabilization funds.

**Requests for Information**

This financial report is designed to provide a general overview of the City's finances for all of those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the City of Chicago Department of Finance.

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**Exhibit 1**  
**CITY OF CHICAGO, ILLINOIS**  
**STATEMENT OF NET POSITION**  
**December 31, 2017**  
**(Amounts are in Thousands of Dollars)**

	Primary Government		
	Governmental Activities	Business-type Activities	Total
<b>ASSETS AND DEFERRED OUTFLOWS</b>			
Cash and Cash Equivalents .....	\$ 851,501	\$ 512,065	\$ 1,363,566
Investments .....	1,538,985	468,751	2,007,736
Receivables (Net of Allowances):			
Property Tax .....	1,853,000	-	1,853,000
Accounts .....	1,097,912	442,422	1,540,334
Internal Balances .....	(66,586)	66,586	-
Inventories .....	25,945	23,043	48,988
Restricted Assets:			
Cash and Cash Equivalents .....	73,805	2,056,257	2,130,062
Investments .....	598,083	2,471,906	3,069,989
Cash and Investments with Escrow Agent .....	654,911	-	654,911
Interest Receivable .....	-	15,294	15,294
Other Assets .....	11,824	56,060	67,884
Capital Assets:			
Land, Art, and Construction in Progress .....	2,140,851	2,902,437	5,043,288
Other Capital Assets, Net of Accumulated Depreciation .....	6,604,739	13,535,085	20,139,824
Total Capital Assets .....	8,745,590	16,437,522	25,183,112
Total Assets .....	15,384,970	22,549,906	37,934,876
Deferred Outflows .....	4,089,870	1,194,900	5,284,770
Total Assets and Deferred Outflows .....	<u>\$ 19,474,840</u>	<u>\$ 23,744,806</u>	<u>\$ 43,219,646</u>
<b>LIABILITIES AND DEFERRED INFLOWS</b>			
Voucher Warrants Payable .....	\$ 884,321	\$ 521,701	\$ 1,406,022
Accrued Interest .....	289,714	314,782	604,496
Accrued and Other Liabilities .....	1,091,201	403,360	1,494,561
Unearned Revenue .....	99,240	257,370	356,610
Derivative Instrument Liability .....	-	24,319	24,319
Long-term Liabilities:			
Due Within One Year .....	256,608	481,816	738,424
Due in More Than One Year .....	37,154,875	18,289,500	55,444,375
Total Liabilities .....	<u>39,775,959</u>	<u>20,292,848</u>	<u>60,068,807</u>
Deferred Inflows .....	8,413,728	3,105,202	11,518,930
Total Liabilities and Deferred Inflows .....	<u>48,189,687</u>	<u>23,398,050</u>	<u>71,587,737</u>
<b>NET POSITION</b>			
Net Investment in Capital Assets .....	(551,074)	3,866,056	3,314,982
Restricted for:			
Capital Projects .....	444,911	201,929	646,840
Debt Service .....	623,866	28,165	652,031
Special Taxing Areas .....	1,347,294	-	1,347,294
Passenger Facility Charges .....	-	196,869	196,869
Contractual Use Agreement .....	-	185,874	185,874
Airport Development Fund .....	-	169,999	169,999
Customer Facility Charges .....	-	57,060	57,060
Other Purposes .....	-	28,125	28,125
Unrestricted (Deficit) .....	(30,579,844)	(4,387,321)	(34,967,165)
Total Net (Deficit)/Position .....	<u>\$ (28,714,847)</u>	<u>\$ 346,756</u>	<u>\$ (28,368,091)</u>

See notes to basic financial statements.

**Exhibit 2**  
**CITY OF CHICAGO, ILLINOIS**  
**STATEMENT OF ACTIVITIES**  
**Year Ended December 31, 2017**  
**(Amounts are in Thousands of Dollars)**

Functions/Programs	Expenses	Licenses, Permits, Fines and Charges for Services
<b>Primary Government</b>		
<b>Governmental Activities:</b>		
General Government .....	\$ 2,914,655	\$ 521,232
Public Safety .....	3,636,102	194,586
Streets and Sanitation .....	247,836	95,180
Transportation .....	414,044	66,994
Health .....	124,090	6,881
Cultural and Recreational .....	121,483	15,407
Interest on Long-term Debt .....	722,008	-
<b>Total Governmental Activities</b> .....	<b>8,180,218</b>	<b>900,280</b>
 <b>Business-type Activities:</b>		
Water .....	581,642	759,014
Sewer .....	293,047	357,623
Chicago Midway International Airport .....	284,974	244,073
Chicago-O'Hare International Airport .....	1,256,665	1,167,089
Chicago Skyway .....	8,506	-
<b>Total Business-type Activities</b> .....	<b>2,424,834</b>	<b>2,527,799</b>
<b>Total Primary Government</b> .....	<b>\$ 10,605,052</b>	<b>\$ 3,428,079</b>

See notes to basic financial statements.

Program Revenues		Net (Expense) Revenue and Changes in Net Position Primary Government		
Operating Grants and Contributions	Capital Grants and Contributions	Governmental Activities	Business-type Activities	Total
\$ 332,688	\$ -	\$ (2,060,735)	\$ -	\$ (2,060,735)
40,708	-	(3,400,808)	-	(3,400,808)
-	-	(152,656)	-	(152,656)
-	205,505	(141,545)	-	(141,545)
88,915	-	(28,294)	-	(28,294)
10,903	-	(95,173)	-	(95,173)
-	-	(722,008)	-	(722,008)
<b>473,214</b>	<b>205,505</b>	<b>(6,601,219)</b>	<b>-</b>	<b>(6,601,219)</b>
-	-	-	177,372	177,372
-	6,419	-	70,995	70,995
-	31,556	-	(9,345)	(9,345)
-	82,001	-	(7,575)	(7,575)
-	-	-	(8,506)	(8,506)
<b>-</b>	<b>119,976</b>	<b>-</b>	<b>222,941</b>	<b>222,941</b>
<b>\$ 473,214</b>	<b>\$ 325,481</b>	<b>(6,601,219)</b>	<b>222,941</b>	<b>(6,378,278)</b>
General Revenues				
Taxes:				
Property Tax .....		1,327,236	-	1,327,236
Utility Tax .....		609,205	-	609,205
Sales Tax .....		344,911	-	344,911
Transportation Tax .....		476,329	-	476,329
Transaction Tax .....		497,965	-	497,965
Special Area Tax .....		605,548	-	605,548
Recreation Tax .....		253,140	-	253,140
Other Taxes .....		171,742	-	171,742
Grants and Contributions not Restricted to Specific Programs .....				
Unrestricted Investment Earnings .....		762,009	-	762,009
Loss on Disposal and Sale of Capital Assets ..		87,741	53,114	140,855
Miscellaneous .....		(28,583)	(18,711)	(47,294)
Transfers .....		249,173	49,287	298,460
Total General Revenues and Transfers .....		2,215	(2,215)	-
Change in Net Position .....		5,358,631	81,475	5,440,106
Net Position - Beginning .....		(1,242,588)	304,416	(938,172)
Net Position - Ending .....		(27,472,259)	42,340	(27,429,919)
		<b>\$ (28,714,847)</b>	<b>\$ 346,756</b>	<b>\$ (28,368,091)</b>

**Exhibit 3****CITY OF CHICAGO, ILLINOIS****BALANCE SHEET****GOVERNMENTAL FUNDS****December 31, 2017****(Amounts are in Thousands of Dollars)**

	General	Federal, State and Local Grants	Special Taxing Areas
<b>ASSETS</b>			
Cash and Cash Equivalents .....	\$ 3,500	\$ -	\$ 476,754
Investments .....	170,423	91,884	774,514
Receivables (Net of Allowances):			
Property Tax .....	-	-	524,997
Accounts .....	226,081	4,275	3,759
Due From Other Funds .....	233,028	22,474	88,489
Due From Other Governments .....	204,948	393,967	-
Inventories .....	25,945	-	-
Restricted Cash and Cash Equivalents .....	-	3,218	-
Restricted Investments .....	-	-	-
Restricted Cash and Investments with Escrow Agent .....	-	-	-
Other Assets .....	-	3,267	-
Total Assets .....	<u>\$ 863,925</u>	<u>\$ 519,085</u>	<u>\$ 1,868,513</u>
<b>LIABILITIES, DEFERRED INFLOWS AND FUND BALANCE</b>			
Liabilities:			
Voucher Warrants Payable .....	\$ 214,162	\$ 160,258	\$ 55,640
Bonds, Notes and Other Obligations Payable - Current .....	-	-	-
Accrued Interest .....	-	-	-
Due To Other Funds .....	185,342	253,145	1,581
Accrued and Other Liabilities .....	139,158	6,099	4,408
Claims Payable .....	33,529	-	-
Unearned Revenue .....	1,405	97,835	-
Total Liabilities .....	<u>573,596</u>	<u>517,337</u>	<u>61,629</u>
Deferred Inflows .....	<u>1,968</u>	<u>243,150</u>	<u>459,590</u>
Fund Balance:			
Nonspendable .....	25,945	-	-
Restricted .....	-	7,438	1,347,294
Committed .....	-	-	-
Assigned .....	106,900	-	-
Unassigned .....	<u>155,516</u>	<u>(248,840)</u>	<u>-</u>
Total Fund Balance .....	<u>288,361</u>	<u>(241,402)</u>	<u>1,347,294</u>
Total Liabilities, Deferred Inflows and Fund Balance .....	<u><u>\$ 863,925</u></u>	<u><u>\$ 519,085</u></u>	<u><u>\$ 1,868,513</u></u>

See notes to basic financial statements.

Service Concession and Reserve	Bond, Note Redemption and Interest	STSC Debt Service	Community Development and Improvement Projects	Pension	Nonmajor Governmental Funds	Total Governmental Funds
\$ -	\$ 36,520	\$ 325	\$ 115,556	\$ 193,139	\$ 25,707	\$ 851,501
-	89,283	-	322,283	-	90,598	1,538,985
-	498,833	-	-	806,220	22,950	1,853,000
5,182	12,564	26,034	2,263	496	178,752	459,406
30,940	412	769,064	19,453	-	100,608	1,264,468
-	2,960	-	-	-	36,631	638,506
-	-	-	-	-	-	25,945
34,089	-	-	-	-	36,498	73,805
598,083	-	-	-	-	-	598,083
-	591,587	-	-	-	63,324	654,911
-	-	-	-	-	-	3,267
<b>\$ 668,294</b>	<b>\$ 1,232,159</b>	<b>\$ 795,423</b>	<b>\$ 459,555</b>	<b>\$ 999,855</b>	<b>\$ 555,068</b>	<b>\$ 7,961,877</b>
 \$ 7	 \$ -	 \$ 356	 \$ 52,300	 \$ 194,159	 \$ 199,882	 \$ 876,764
-	81,297	-	-	-	-	81,297
-	288,919	-	-	-	795	289,714
-	769,064	-	59,501	123,896	62,421	1,454,950
-	-	-	1,754	-	6,930	158,349
-	-	-	-	-	-	33,529
-	-	-	-	-	-	99,240
<b>7</b>	<b>1,139,280</b>	<b>356</b>	<b>113,555</b>	<b>318,055</b>	<b>270,028</b>	<b>2,993,843</b>
<b>1,513,194</b>	<b>421,872</b>	<b>-</b>	<b>-</b>	<b>681,800</b>	<b>24,502</b>	<b>3,346,076</b>
 - - 668,287 - (1,513,194) (844,907) <b>\$ 668,294</b>	 - 26,003 - - - - <b>\$ 1,232,159</b>	 769,064 346,000 - - - <b>\$ 795,423</b>	 - - - - - <b>\$ 459,555</b>	 - 176,759 - - - <b>\$ 999,855</b>	 - 122,202 - - - <b>\$ 555,068</b>	 795,009 1,903,494 790,489 106,900 (38,423) 260,538 <b>\$ 7,961,877</b>

Amounts reported for governmental activities in the statement of net position are different because:

Capital assets used in governmental activities are not financial resources and therefore are not reported in the funds .....	8,745,590
Other long-term assets are not available to pay for current-period expenditures and therefore are recorded as deferred inflows in the funds .....	1,832,882
Bond issuance costs that are expensed in statement of revenues, expenditures and changes in fund balances but reported as other assets in the statement of activities .....	8,557
Certain liabilities, including bonds payable, and deferred outflows are not due and payable in the current period and therefore are not reported in the funds .....	(40,923,834)
Net position of governmental activities .....	<b>\$ (28,714,847)</b>

**Exhibit 4****CITY OF CHICAGO, ILLINOIS****STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES****GOVERNMENTAL FUNDS****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

	General	Federal, State and Local Grants	Special Taxing Areas
<b>Revenues:</b>			
Property Tax .....	\$ -	\$ -	\$ -
Utility Tax .....	438,979	-	-
Sales Tax (Local) .....	229,861	-	-
Transportation Tax .....	274,999	-	-
State Income Tax .....	388,236	-	-
State Sales Tax .....	270,499	-	-
Transaction Tax .....	434,218	-	-
Special Area Tax .....	-	-	491,310
Recreation Tax .....	253,140	-	-
Other Taxes .....	146,991	-	-
Federal/State Grants .....	2,514	703,251	-
Internal Service .....	347,738	-	-
Licenses and Permits .....	133,500	-	-
Fines .....	344,925	-	-
Investment Income .....	6,978	-	20,344
Charges for Services .....	189,802	-	24
Miscellaneous .....	97,079	-	1,626
<b>Total Revenues</b> .....	<b>3,559,459</b>	<b>703,251</b>	<b>513,304</b>
<b>Expenditures:</b>			
Current:			
General Government .....	929,471	346,562	375,399
Health .....	30,083	93,052	-
Public Safety .....	2,228,705	54,656	426
Streets and Sanitation .....	197,491	-	-
Transportation .....	50,069	163,270	60,633
Cultural and Recreational .....	-	15,659	-
Employee Pensions .....	-	-	-
Other .....	-	350	-
Capital Outlay .....	-	48,174	-
Debt Service:			
Principal Retirement .....	6,145	-	3,118
Interest and Other Fiscal Charges .....	12,894	-	-
<b>Total Expenditures</b> .....	<b>3,454,858</b>	<b>721,723</b>	<b>439,576</b>
<b>Revenues Over (Under) Expenditures</b> ..	<b>104,601</b>	<b>(18,472)</b>	<b>73,728</b>

Continued on following pages.

Service Concession and Reserve	Bond, Note Redemption and Interest	STSC Debt Service	Community Development and Improvement Projects			Nonmajor Governmental Funds	Total Governmental Funds
				Pension			
\$ -	\$ 472,547	\$ -	\$ -	\$ 740,019	\$ -	\$ 1,212,566	
-	22,327	-	-	-	143,103	604,409	
-	38,816	11,221	-	-	65,013	344,911	
-	13,245	-	-	-	188,085	476,329	
-	-	-	-	-	-	388,236	
-	-	14,713	-	-	86,047	371,259	
-	-	-	-	-	63,747	497,965	
-	-	-	-	-	21,219	512,529	
-	-	-	-	-	-	253,140	
-	-	-	-	-	24,751	171,742	
-	-	-	-	-	-	705,765	
-	-	-	-	-	33,664	381,402	
-	2,616	-	-	-	-	136,116	
-	-	-	-	-	18,929	363,854	
49,113	1,990	-	6,083	54	3,178	87,740	
-	-	-	-	-	51,001	240,827	
21,033	12,187	-	12,302	82,129	22,817	249,173	
<b>70,146</b>	<b>563,728</b>	<b>25,934</b>	<b>18,385</b>	<b>822,202</b>	<b>721,554</b>	<b>6,997,963</b>	
 7	 -	 -	 1,350	 -	 340,437	 1,993,226	
-	-	-	-	-	-	123,135	
-	-	-	45,143	-	4,743	2,333,673	
-	-	-	-	-	44,734	242,225	
-	-	-	-	-	104,850	378,822	
-	-	-	-	-	87,414	103,073	
-	-	-	-	931,618	-	931,618	
-	-	-	-	-	394	744	
-	-	-	164,627	-	62,591	275,392	
-	283,857	-	-	-	60,825	353,945	
-	571,925	6,467	-	-	18,308	609,594	
<b>7</b>	<b>855,782</b>	<b>6,467</b>	<b>211,120</b>	<b>931,618</b>	<b>724,296</b>	<b>7,345,447</b>	
<b>70,139</b>	<b>(292,054)</b>	<b>19,467</b>	<b>(192,735)</b>	<b>(109,416)</b>	<b>(2,742)</b>	<b>(347,484)</b>	

**Exhibit 4 - Concluded**

**CITY OF CHICAGO, ILLINOIS**

**STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES**

**GOVERNMENTAL FUNDS**

**Year Ended December 31, 2017**

**(Amounts are in Thousands of Dollars)**

	<u>General</u>	<u>Federal, State and Local Grants</u>	<u>Special Taxing Areas</u>
<b>Other Financing Sources (Uses):</b>			
Issuance of Debt .....	\$ -	\$ 19,977	\$ -
Issuance of Line of Credit .....	-	-	-
Premium/(Discount) .....	-	-	-
Payment to Refunded Bond Escrow Agent .....	-	-	-
Proceeds from Sale of Assets .....	-	-	-
Transfers In .....	180,227	-	12,042
Transfers Out .....	(268,263)	-	(48,295)
<b>Total Other Financing (Uses) Sources .....</b>	<b>(88,036)</b>	<b>19,977</b>	<b>(36,253)</b>
Net Changes in Fund Balance .....	16,565	1,505	37,475
Fund Balance, Beginning of Year .....	269,582	(242,907)	1,309,819
Change in Inventory .....	2,214	-	-
<b>Fund Balance, End of Year .....</b>	<b>\$ 288,361</b>	<b>\$ (241,402)</b>	<b>\$ 1,347,294</b>

See notes to basic financial statements.

Service Concession and Reserve	Bond, Note Redemption and Interest	STSC Debt Service	Community Development and Improvement Projects	Pension	Nonmajor Governmental Funds	Total Governmental Funds
\$ -	\$ 553,936	\$ 743,735	\$ 471,158	\$ -	\$ 135,166	\$ 1,923,972
	77,203	-	-	-	-	77,203
-	(11,953)	33,917	(9,803)	-	-	12,161
-	(971,766)	-	-	-	-	(971,766)
-	-	-	15,225	-	-	15,225
-	125,023	-	17,128	109,416	145,902	589,738
<u>(21,060)</u>	<u>(77,203)</u>	<u>(2,052)</u>	<u>(5)</u>	<u>-</u>	<u>(170,645)</u>	<u>(587,523)</u>
<u>(21,060)</u>	<u>(304,760)</u>	<u>775,600</u>	<u>493,703</u>	<u>109,416</u>	<u>110,423</u>	<u>1,059,010</u>
49,079	(596,814)	795,067	300,968	-	107,681	711,526
(893,986)	267,821	-	45,032	-	152,857	908,218
-	-	-	-	-	-	2,214
<u>\$ (844,907)</u>	<u>\$ (328,993)</u>	<u>\$ 795,067</u>	<u>\$ 346,000</u>	<u>\$ -</u>	<u>\$ 260,538</u>	<u>\$ 1,621,958</u>

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**Exhibit 5****CITY OF CHICAGO, ILLINOIS****RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES AND CHANGES****IN FUND BALANCES OF GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

Amounts reported for governmental activities in the statement of activities are different from amounts reported for governmental funds in the statement of revenues, expenditures and changes in fund balances because:

Net change in fund balances - total governmental funds .....	\$ 711,526
Governmental funds report capital outlays as expenditures. However, in the statement of activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. This is the amount by which capital outlays exceeded depreciation in the current period .....	127,759
In the Statement of Activities, gain or loss on disposal and sale of capital assets is reported, whereas in the governmental funds, the entire proceeds are recorded .....	(43,808)
Revenues in the statement of activities that do not provide current financial resources are not reported as revenues in the funds .....	193,341
Bond proceeds provide current financial resources to governmental funds, but issuing debt increases long-term liabilities in the statement of net assets. This is the amount by which proceeds exceeded repayments .....	(802,641)
Certain expenses reported in the statement of activities do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds .....	(1,428,765)
Change in the net position of governmental activities .....	<u>\$ (1,242,588)</u>

See notes to basic financial statements.

**Exhibit 6****CITY OF CHICAGO, ILLINOIS****STATEMENT OF REVENUES AND EXPENDITURES - BUDGET AND ACTUAL****GENERAL FUND (BUDGETARY BASIS)****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

	Original Budget	Final Budget	Actual Amounts	Variance
<b>Revenues:</b>				
Utility Tax .....	\$ 437,020	\$ 437,020	\$ 438,979	\$ 1,959
Sales Tax .....	326,040	326,040	229,861	(96,179)
Transportation Tax .....	241,440	241,440	274,999	33,559
Transaction Tax .....	394,940	394,940	434,218	39,278
Recreation Tax .....	221,563	221,563	253,140	31,577
Other Taxes .....	128,320	128,320	146,991	18,671
State Income Tax .....	399,618	399,618	388,236	(11,382)
State Sales Tax .....	372,800	372,800	270,499	(102,301)
Federal/State Grants .....	1,800	1,800	2,514	714
Internal Service .....	358,885	358,885	347,738	(11,147)
Licenses and Permits .....	128,000	128,000	133,500	5,500
Fines .....	358,800	358,800	344,925	(13,875)
Investment Income .....	1,500	1,500	6,978	5,478
Charges for Services .....	197,945	197,945	189,802	(8,143)
Miscellaneous .....	137,533	137,933	97,079	(40,854)
Budgeted Prior Years' Surplus and Reappropriations .....	37,000	53,000	-	(53,000)
Transfers In/Out .....	37,000	37,000	180,227	143,227
<b>Total Revenues .....</b>	<b>3,780,204</b>	<b>3,796,604</b>	<b>3,739,686</b>	<b>(56,918)</b>
<b>Expenditures:</b>				
<b>Current:</b>				
General Government .....	1,305,128	1,320,528	1,202,087	118,441
Health .....	31,990	31,990	31,633	357
Public Safety .....	2,175,078	2,176,078	2,212,796	(36,718)
Streets and Sanitation .....	207,026	207,026	197,744	9,282
Transportation .....	56,100	56,100	50,982	5,118
<b>Debt Service:</b>				
Principal Retirement .....	2,145	2,145	2,145	-
Interest and Other Fiscal Charges .....	2,737	2,737	3,080	(343)
<b>Total Expenditures .....</b>	<b>3,780,204</b>	<b>3,796,604</b>	<b>3,700,467</b>	<b>96,137</b>
<b>Revenues Over Expenditures .....</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 39,219</b>	<b>\$ 39,219</b>

See notes to basic financial statements.

**Exhibit 7****CITY OF CHICAGO, ILLINOIS****STATEMENT OF REVENUES AND EXPENDITURES - BUDGET AND ACTUAL****PENSION FUND (BUDGETARY BASIS)****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

	Original Budget	Final Budget	Actual Amounts	Variance
<b>Revenues:</b>				
Property Taxes .....	\$ 839,083	\$ 839,083	\$ 740,019	\$ (99,064)
Investment Income .....	-	-	54	54
Other Revenue .....	82,300	82,300	82,129	(171)
Transfers In .....	108,605	108,605	109,416	811
<b>Total Revenues</b> .....	<b>1,029,988</b>	<b>1,029,988</b>	<b>931,618</b>	<b>(98,370)</b>
<b>Expenditures:</b>				
Current:				
City Contribution to -				
Municipal Employees'				
Annuity and Benefit Fund .....	266,988	266,988	256,127	10,861
City Contribution to -				
Laborers' and Retirement Board				
Employees' Annuity and Benefit Fund .....	36,000	36,000	35,142	858
City Contribution to -				
Policemen's Annuity and Benefit Fund .....	500,000	500,000	439,805	60,195
City Contribution to -				
Firemen's Annuity and Benefit Fund .....	227,000	227,000	200,544	26,456
<b>Total Expenditures</b> .....	<b>1,029,988</b>	<b>1,029,988</b>	<b>931,618</b>	<b>98,370</b>
<b>Revenues Over Expenditures</b> .....	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

See notes to basic financial statements.

**Exhibit 8****CITY OF CHICAGO, ILLINOIS****STATEMENT OF NET POSITION****PROPRIETARY FUNDS****December 31, 2017****(Amounts are in Thousands of Dollars)**

	Business-type Activities - Enterprise Funds								
	Major Funds								
	Water	Sewer	Chicago-Midway International Airport	Chicago-O'Hare International Airport	Chicago Skyway	Total			
<b>ASSETS AND DEFERRED OUTFLOWS</b>									
<b>CURRENT ASSETS:</b>									
Cash and Cash Equivalents .....	\$ 192,899	\$ 55,338	\$ 46,037	\$ 217,206	\$ 585	\$ 512,065			
Investments .....	330,238	102,703	5,009	30,026	775	468,751			
Accounts Receivable (Net of Allowances) .....	189,169	105,155	19,369	83,660	11	397,364			
Interest Receivable .....	285	-	97	430	-	812			
Due from Other Funds .....	36,670	22,238	1,583	39,257	-	99,748			
Inventories .....	22,068	975	-	-	-	23,043			
Cash and Cash Equivalents - Restricted .....	68,025	107,660	85,740	785,667	-	1,047,092			
Investments - Restricted .....	120,846	108,324	-	-	-	229,170			
Interest Receivable - Restricted .....	527	1,638	-	-	-	2,165			
Other Assets - Restricted .....	-	-	-	2,028	-	2,028			
<b>TOTAL CURRENT ASSETS</b> .....	<b>960,727</b>	<b>504,031</b>	<b>157,835</b>	<b>1,158,274</b>	<b>1,371</b>	<b>2,782,238</b>			
<b>NONCURRENT ASSETS:</b>									
Cash and Cash Equivalents - Restricted .....	-	-	128,616	880,549	-	1,009,165			
Investments - Restricted .....	-	200,538	442,809	1,599,389	-	2,242,736			
Interest Receivable - Restricted .....	-	-	2,033	11,096	-	13,129			
Other Assets - Restricted .....	-	-	3,068	31,445	-	34,513			
Due from Other Governments - Restricted .....	-	-	29,707	14,539	-	44,246			
Other Assets .....	2,962	1,299	612	5,030	9,616	19,519			
<b>Property, Plant, and Equipment:</b>									
Land .....	6,858	560	116,475	892,248	12,609	1,028,750			
Structures, Equipment and Improvements .....	5,184,483	3,102,022	1,685,956	9,432,232	490,817	19,895,510			
Accumulated Depreciation .....	(1,145,919)	(614,866)	(667,724)	(3,672,833)	(259,083)	(6,360,425)			
Construction Work in Progress .....	421,867	88,343	32,427	1,331,050	-	1,873,687			
<b>Total Property, Plant and Equipment</b> .....	<b>4,467,289</b>	<b>2,576,059</b>	<b>1,167,134</b>	<b>7,982,697</b>	<b>244,343</b>	<b>16,437,522</b>			
<b>TOTAL NONCURRENT ASSETS:</b> .....	<b>4,470,251</b>	<b>2,777,896</b>	<b>1,773,979</b>	<b>10,524,745</b>	<b>253,959</b>	<b>19,800,830</b>			
<b>TOTAL ASSETS</b> .....	<b>5,430,978</b>	<b>3,281,927</b>	<b>1,931,814</b>	<b>11,683,019</b>	<b>255,330</b>	<b>22,583,068</b>			
<b>DEFERRED OUTFLOWS</b> .....	<b>365,315</b>	<b>108,421</b>	<b>154,462</b>	<b>566,702</b>	<b>-</b>	<b>1,194,900</b>			
<b>TOTAL ASSETS AND DEFERRED OUTFLOWS</b> .....	<b>\$ 5,796,293</b>	<b>\$ 3,390,348</b>	<b>\$ 2,086,276</b>	<b>\$ 12,249,721</b>	<b>\$ 255,330</b>	<b>\$ 23,777,968</b>			

See notes to basic financial statements.

Business-type Activities - Enterprise Funds							
	Major Funds						
			Chicago-Midway International Airport		Chicago-O'Hare International Airport		Chicago Skyway
	Water	Sewer					Total
<b>LIABILITIES</b>							
<b>CURRENT LIABILITIES:</b>							
Voucher Warrants Payable .....	\$ 29,219	\$ 3,728	\$ 23,867	\$ 73,793	\$ -	\$ -	130,607
Due to Other Funds .....	12,482	8,904	9,537	2,224	15		33,162
Accrued and Other Liabilities .....	260,725	38,597	2,743	8,984	-		311,049
Unearned Revenue .....	17,128	13,671	3,874	222,697	-		257,370
Current Liabilities Payable from							
Restricted Assets .....	189,397	215,984	85,387	785,667	-	-	1,276,435
<b>TOTAL CURRENT LIABILITIES</b> .....	<b>508,951</b>	<b>280,884</b>	<b>125,408</b>	<b>1,093,365</b>	<b>15</b>	<b></b>	<b>2,008,623</b>
<b>NONCURRENT LIABILITIES:</b>							
Revenue Bonds and							
Commercial Paper Payable .....	2,525,481	1,982,359	1,842,175	8,783,253	-		15,133,268
Line of Credit and TIFIA Loan Payable .....	-	-	-	171,901	-		171,901
Net Pension Liability .....	1,041,779	392,602	290,610	1,259,340	-		2,984,331
Derivative Instrument Liability .....	-	-	24,319	-	-		24,319
Other .....	1,577	-	1,991	-	-		3,568
<b>TOTAL NONCURRENT LIABILITIES</b> ...	<b>3,568,837</b>	<b>2,374,961</b>	<b>2,159,095</b>	<b>10,214,494</b>	<b>-</b>	<b></b>	<b>18,317,387</b>
<b>TOTAL LIABILITIES</b> .....	<b>4,077,788</b>	<b>2,655,845</b>	<b>2,284,503</b>	<b>11,307,859</b>	<b>15</b>	<b></b>	<b>20,326,010</b>
DEFERRED INFLOWS .....	634,009	246,802	108,774	525,920	1,589,697		3,105,202
<b>NET POSITION:</b>							
Net Investment							
in Capital Assets .....	1,949,409	735,564	(180,803)	1,117,543	244,343		3,866,056
Restricted Net Position:							
Debt Service .....	-	-	8,750	19,415	-		28,165
Capital Projects .....	527	116,376	41,292	43,734	-		201,929
Passenger Facility Charges .....	-	-	4,035	192,834	-		196,869
Contractual Use Agreement .....	-	-	34,541	151,333	-		185,874
Air Development Fund .....	-	-	-	169,999	-		169,999
Customer Facility Charge .....	-	-	31,573	25,487	-		57,060
Other .....	-	-	7,285	20,840	-		28,125
<b>Unrestricted Net (Deficit)</b> .....	<b>(865,440)</b>	<b>(364,239)</b>	<b>(253,674)</b>	<b>(1,325,243)</b>	<b>(1,578,725)</b>	<b></b>	<b>(4,387,321)</b>
<b>TOTAL NET POSITION/(DEFICIT)</b> .....	<b>\$ 1,084,496</b>	<b>\$ 487,701</b>	<b>\$ (307,001)</b>	<b>\$ 415,942</b>	<b>\$ (1,334,382)</b>	<b>\$ 346,756</b>	

See notes to basic financial statements.

**Exhibit 9****CITY OF CHICAGO, ILLINOIS****STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION****PROPRIETARY FUNDS****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

	Business-type Activities - Enterprise Funds					
	Major Funds					
	Water	Sewer	Chicago-Midway International Airport	Chicago-O'Hare International Airport	Chicago Skyway	Total
<b>Operating Revenues:</b>						
Charges for Services - Net of Provision for Doubtful Accounts of \$20,203 for Water and \$20,813 for Sewer .....	\$ 729,644	\$ 356,473	\$ 95,416	\$ 650,974	\$ -	\$ 1,832,507
Rent .....	-	-	99,609	325,205	-	424,814
Other .....	29,370	1,150	-	-	-	30,520
<b>Total Operating Revenues</b> .....	<b>759,014</b>	<b>357,623</b>	<b>195,025</b>	<b>976,179</b>	<b>-</b>	<b>2,287,841</b>
<b>Operating Expenses:</b>						
Personnel Services .....	122,954	12,591	48,185	205,957	-	389,687
Contractual Services .....	55,844	2,466	24,344	101,798	-	184,452
Repairs and Maintenance .....	1,300	66,541	44,506	95,310	-	207,657
Commodities and Materials .....	22,603	-	-	-	-	22,603
Depreciation and Amortization .....	71,088	48,171	51,443	262,331	8,506	441,539
Loss on Capital Asset Disposals .....	-	-	-	18,711	-	18,711
General Fund Reimbursements .....	84,737	47,522	-	-	-	132,259
Pension Expense .....	107,095	34,397	40,211	145,992	-	327,695
Other .....	7,694	-	13,719	103,437	-	124,850
<b>Total Operating Expenses</b> .....	<b>473,315</b>	<b>211,688</b>	<b>222,408</b>	<b>933,536</b>	<b>8,506</b>	<b>1,849,453</b>
<b>Operating Income (Loss)</b> .....	<b>285,699</b>	<b>145,935</b>	<b>(27,383)</b>	<b>42,643</b>	<b>(8,506)</b>	<b>438,388</b>
<b>Nonoperating Revenues (Expenses):</b>						
Investment Income (Loss) .....	10,248	4,348	5,722	32,771	25	53,114
Interest Expense .....	(108,327)	(81,359)	(61,277)	(313,202)	-	(564,165)
Passenger Facility Charges .....	-	-	40,918	151,816	-	192,734
Customer Facility Charges .....	-	-	8,130	39,094	-	47,224
Noise Mitigation Costs .....	-	-	(1,289)	(16,445)	-	(17,734)
Cost of Issuance .....	-	-	-	(12,193)	-	(12,193)
Other .....	3,245	6	475	26,860	18,701	49,287
<b>Total Nonoperating Revenues (Expenses)</b> .....	<b>(94,834)</b>	<b>(77,005)</b>	<b>(7,321)</b>	<b>(91,299)</b>	<b>18,726</b>	<b>(251,733)</b>
<b>Transfers Out</b> .....	<b>(2,095)</b>	<b>(120)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(2,215)</b>
<b>Capital Grants</b> .....	<b>-</b>	<b>6,419</b>	<b>31,556</b>	<b>82,001</b>	<b>-</b>	<b>119,976</b>
<b>Net Income (Loss)</b> .....	<b>188,770</b>	<b>75,229</b>	<b>(3,148)</b>	<b>33,345</b>	<b>10,220</b>	<b>304,416</b>
<b>Net Position (Deficit) -</b>						
Beginning of Year .....	895,726	412,472	(303,853)	382,597	(1,344,602)	42,340
<b>Net Position (Deficit) - End of Year</b> .....	<b>\$ 1,084,496</b>	<b>\$ 487,701</b>	<b>\$ (307,001)</b>	<b>\$ 415,942</b>	<b>\$ (1,334,382)</b>	<b>\$ 346,756</b>

See notes to basic financial statements.

**Exhibit 10****CITY OF CHICAGO, ILLINOIS****STATEMENT OF CASH FLOWS****PROPRIETARY FUNDS****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

Business-type Activities - Enterprise Funds						
Major Funds						
	Water	Sewer	Chicago-Midway International Airport	Chicago-O'Hare International Airport	Chicago Skyway	Total
<b>Cash Flows from Operating Activities:</b>						
Received from Customers .....	\$ 737,146	\$ 358,600	\$ 197,343	\$ 1,003,818	\$ -	\$ 2,296,907
Payments to Vendors .....	(74,661)	(29,299)	(83,615)	(307,547)	(236)	(495,358)
Payments to Employees .....	(122,989)	(51,950)	(44,479)	(187,117)	-	(406,535)
Transactions with Other City Funds .....	(106,537)	(63,423)	(12,714)	(85,131)	-	(267,805)
<b>Cash Flows Provided By Operating Activities</b> .....	<b>432,959</b>	<b>213,928</b>	<b>56,535</b>	<b>424,023</b>	<b>(236)</b>	<b>1,127,209</b>
<b>Cash Flows from Capital and Related Financing Activities:</b>						
Proceeds from Issuance of Bonds/Commercial Paper/IEPA Loans/TIFIA Loans/LOC .....	655,495	506,380	-	2,404,756	-	3,566,631
Acquisition and Construction of						
Capital Assets .....	(392,151)	(165,650)	(39,634)	(818,606)	-	(1,416,041)
Capital Grant Receipts .....	-	6,419	3,147	101,937	-	111,503
Bond Issuance Costs .....	(4,146)	(5,394)	(4,061)	(17,839)	-	(31,440)
Payment to Refund Bonds .....	-	(240,400)	-	(615,843)	-	(856,243)
Principal Paid on Debt .....	(578,857)	(51,653)	(25,770)	(277,850)	-	(934,130)
Interest Paid .....	(132,476)	(87,983)	(82,336)	(348,042)	-	(650,837)
Passenger and Customer Facility Charges .....	-	-	50,513	190,961	-	241,474
Concessionaire Funds .....	-	-	-	-	79	79
<b>Cash Flows (Used in) Provided By Capital and Related Financing Activities</b> .....	<b>(452,135)</b>	<b>(38,281)</b>	<b>(98,141)</b>	<b>619,474</b>	<b>79</b>	<b>30,996</b>
<b>Cash Flows from Non Capital Financing Activities:</b>						
Noise Mitigation Program .....	-	-	(1,289)	(16,445)	-	(17,734)
Proceeds from Settlement Agreement .....	-	-	475	778	-	1,253
<b>Cash Flows Used in Non Capital Financing Activities</b> .....	<b>-</b>	<b>-</b>	<b>(814)</b>	<b>(15,667)</b>	<b>-</b>	<b>(16,481)</b>
<b>Cash Flows from Investing Activities:</b>						
(Purchases) Sale of Investments, Net .....	52,621	(174,695)	66,305	(488,302)	222	(543,849)
Investment Income (Loss) .....	11,390	5,261	8,470	38,549	42	63,712
<b>Cash Flows (Used in) Provided By Investing Activities</b> .....	<b>64,011</b>	<b>(169,434)</b>	<b>74,775</b>	<b>(449,753)</b>	<b>264</b>	<b>(480,137)</b>
<b>Net (Decrease) Increase in Cash and</b>						
Cash Equivalents .....	44,835	6,213	32,355	578,077	107	661,587
Cash and Cash Equivalents, Beginning of Year .....	216,089	156,785	228,038	1,305,345	478	1,906,735
<b>Cash and Cash Equivalents, End of Year</b> .....	<b>\$ 260,924</b>	<b>\$ 162,998</b>	<b>\$ 260,393</b>	<b>\$ 1,883,422</b>	<b>\$ 585</b>	<b>\$ 2,568,322</b>

See notes to basic financial statements.

**Exhibit 10 - Concluded****CITY OF CHICAGO, ILLINOIS****STATEMENT OF CASH FLOWS****PROPRIETARY FUNDS****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

	Business-type Activities - Enterprise Funds						
	Major Funds						
			Chicago-Midway International Airport		Chicago-O'Hare International Airport		Chicago Skyway
	Water	Sewer					Total
Reconciliation of Operating Income to Cash Flows from Operating Activities:							
Operating Income (Loss) .....	\$ 285,699	\$ 145,935	\$ (27,383)	\$ 42,643	\$ (8,506)	\$ 438,388	
Adjustments to Reconcile:							
Depreciation and Amortization and Impairment .....	71,088	48,171	51,443	281,042	8,506	460,250	
Pension Expense Other than Contribution .....	82,683	24,921	30,663	107,299	-	245,566	
Provision for Uncollectible Accounts .....	20,203	20,813	41	-	-	41,057	
Change in Assets and Liabilities:							
(A) Increase in Receivables .....	(41,041)	(19,093)	(3,324)	(1,812)	-	(65,270)	
(A) Decrease in Due From Other Funds .....	(764)	(4,766)	443	(7,406)	-	(12,493)	
(D) Increase in Voucher Warrants							
Payable and Due to Other Funds .....	11,958	(1,127)	(737)	(19,066)	-	(8,972)	
Increase (Decrease) in Unearned Revenue							
and Other Liabilities .....	2,965	(944)	5,560	29,451	(236)	36,796	
Increase in Inventories and							
Other Assets .....	168	18	(171)	(8,128)	-	(8,113)	
Cash Flows from							
Operating Activities .....	<u>\$ 432,959</u>	<u>\$ 213,928</u>	<u>\$ 56,535</u>	<u>\$ 424,023</u>	<u>\$ (236)</u>	<u>\$ 1,127,209</u>	

**Supplemental Disclosure of****Noncash Items:**

Capital asset additions in 2017

have outstanding accounts payable

and accrued and other liabilities .....

\$ 66,176    \$ 115,648    \$ 18,330    \$ 212,735    \$ -    \$ 412,889

See notes to basic financial statements.

**Exhibit 11**  
**CITY OF CHICAGO, ILLINOIS**  
**STATEMENT OF FIDUCIARY NET POSITION**  
**FIDUCIARY FUNDS**  
**December 31, 2017**  
**(Amounts are in Thousands of Dollars)**

	Pension Trust	Agency
<b>ASSETS</b>		
Cash and Cash Equivalents .....	\$ 242,857	\$ 110,080
Investments .....	8,899,948	109,443
Cash and Investments with		
Escrow Agent .....	-	10,617
Property Tax Receivable .....	-	91,101
Accounts Receivable, Net .....	1,086,904	8,511
Due From City .....	123,896	-
Property, Plant, Equipment and other .....	198	-
Invested Securities Lending Collateral .....	553,047	-
 Total Assets .....	 \$ 10,906,850	 \$ 329,752
Deferred Outflows .....	\$ 274	\$ -
<b>LIABILITIES</b>		
Voucher Warrants Payable .....	\$ 284,285	\$ 22,214
Accrued and Other Liabilities .....	-	307,538
Securities Lending Collateral .....	553,047	-
 Total Liabilities .....	 \$ 837,332	 \$ 329,752
<b>NET POSITION</b>		
Restricted for Pension Benefits .....	10,069,792	
Total Net Position .....	\$ 10,069,792	

See notes to basic financial statements.

**Exhibit 12****CITY OF CHICAGO, ILLINOIS****STATEMENT OF CHANGES IN PLAN NET POSITION****FIDUCIARY FUNDS - PENSION TRUST FUNDS****Year Ended December 31, 2017****(Amounts are in Thousands of Dollars)**

	<u>Total</u>
<b>ADDITIONS</b>	
Contributions:	
Employees .....	\$ 302,551
City .....	<u>1,020,156</u>
Total Contributions .....	<u>1,322,707</u>
Investment Income:	
Net Appreciation in	
Fair Value of Investments .....	1,214,709
Interest, Dividends and Other .....	197,009
Investment Expense .....	<u>(43,427)</u>
Net Investment Income .....	<u>1,368,291</u>
Securities Lending Transactions:	
Securities Lending Income .....	7,448
Securities Lending Expense .....	<u>(4,363)</u>
Net Securities Lending Transactions .....	<u>3,085</u>
Other Additions	
OPEB Termination .....	<u>5,393</u>
Total Additions .....	<u>2,699,476</u>
<b>DEDUCTIONS</b>	
Benefits and Refunds of Deductions .....	2,099,213
Administrative and General .....	<u>18,473</u>
Total Deductions .....	<u>2,117,686</u>
Net Increase in Net Position .....	581,790
Net Position:	
Beginning of Year .....	<u>9,488,002</u>
End of Year .....	<u>\$ 10,069,792</u>

See notes to basic financial statements.

**CITY OF CHICAGO, ILLINOIS**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
**YEAR ENDED DECEMBER 31, 2017**

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**1) Summary of Significant Accounting Policies**

The City of Chicago (City), incorporated in 1837, is a "home rule" unit under State of Illinois law. The City has a mayor-council form of government. The Mayor is the Chief Executive Officer of the City and is elected by general election. The City Council is the legislative body and consists of 50 members, each representing one of the City's 50 wards. The members of the City Council are elected through popular vote by ward for four-year terms.

The accounting policies of the City are based upon accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board (GASB). Effective January 1, 2017, the City adopted the following GASB Statements:

GASB Statement No. 80, *Blending Requirements for Certain Component Units*, an amendment of GASB Statement No. 14 ("GASB 80"), amends the blending requirements for the financial statement presentation of component units of all state and local governments. GASB 80 was effective for the City for its year ended December 31, 2017. The adoption of this Statement had no impact on the City's financial statements.

GASB Statement No. 82, *Pension Issues*, an amendment of GASB Statements No. 67, No. 68, and No. 73 ("GASB 82"), addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (Plan member) contribution requirements. GASB 82 was effective for the City for its year ended December 31, 2017. The adoption of this Statement adjusted the presentation of payroll-related measures in the required supplementary information, but did not have an impact on the City's financial statements.

Other accounting standards that the City is currently reviewing for applicability and potential impact on the financial statements include:

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), replaces the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*, for OPEB. GASB 75 will be effective for the City beginning with its year ending December 31, 2018. This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. In addition, this Statement details the recognition and disclosure requirements for employers with payables to defined benefit OPEB plans that are administered through trusts that meet the specified criteria and for employers whose employees are provided with defined contribution OPEB.

GASB Statement No. 83, *Certain Asset Retirement Obligations* – ("GASB 83"), addresses accounting and financial reporting for certain asset retirement obligations (AROs). A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets will have to recognize a liability based on the guidance in this statement. This Statement also requires disclosure of information about the nature of a government's AROs, the methods and assumptions used for the estimates of the liabilities, and the estimated remaining useful life of the associated tangible capital assets. GASB 83 will be effective for the City beginning with its year ending December 31, 2019.

GASB Statement No. 84, *Fiduciary Activities* – ("GASB 84") will improve the guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. GASB 84 will be effective for the City beginning with its year ending December 31, 2019.

GASB Statement No. 85, *Omnibus* – ("GASB 85") the objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. The statement addresses various miscellaneous issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (OPEB). GASB 85 will be effective for the City

**CITY OF CHICAGO, ILLINOIS**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
**YEAR ENDED DECEMBER 31, 2017**

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beginning with its year ending December 31, 2018.

GASB Statement No. 86, *Certain Debt Extinguishment Issues* – (“GASB 86”) establishes accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources (resources other than the proceeds of refunding debt) are placed in an irrevocable trust for the sole purpose of extinguishing debt. GASB 86 will be effective for the City beginning with its year ending December 31, 2018.

GASB Statement No. 87, *Leases* – (“GASB 87”) will improve accounting and financial reporting for leases by governments by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. The Statement will establish a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. This Statement will increase the usefulness of governments’ financial statements by requiring reporting of certain lease liabilities that are currently not reported. GASB 87 will be effective for the City beginning with its year ending December 31, 2020.

GASB Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements* – (“GASB 88”) will improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. GASB 88 will be effective for the City beginning with its year ending December 31, 2019.

a) **Reporting Entity** – The financial reporting entity consists of the City and its component units, which are legally separate organizations for which the City is financially accountable. The financial statements for the City have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), applicable to governmental units, as required by the Municipal Code of Chicago (Code). The City includes the Chicago Public Library.

The City's financial statements include the following legal entities as fiduciary trust funds:

The Municipal Employees' Annuity and Benefit Fund of Chicago is governed by a five-member board: three members are elected by plan participants and two are members ex-officio.

The Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago is governed by an eight-member board: two members are elected by plan participants, two are members ex-officio, two members are appointed by the City Department of Human Resources, one member is elected by retired plan participants and one member is elected by the local labor union.

The Policemen's Annuity and Benefit Fund of Chicago is governed by an eight-member board: four members are elected by plan participants and four are appointed by the Mayor.

The Firemen's Annuity and Benefit Fund of Chicago is governed by an eight-member board: four members are elected by plan participants and four are members ex-officio.

Financial statements for each of these four pension plans (collectively, “Pension Plans”) may be obtained at the respective Pension Plans' offices.

Blended Component Unit

The City's financial statements also include, as a blended component unit, the Sales Tax Securitization Corporation (the “STSC”). The STSC is a special purpose not-for-profit corporation incorporated under the provisions of the General Not-For-Profit Corporation Act of 1986 of the State of Illinois (805 ILCS 105) (the

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"State"), as amended, and organized in accordance with an ordinance adopted by the City of Chicago City Council on October 11, 2017. The STSC is a non-stock corporation, has no members, and is governed by a board of directors (the "Board"). Except as described in the following sentence, the Board has five voting directors all of whom are officials of the City. The STSC's Bylaws require the vote of an additional "independent director" as a condition to taking certain actions. The independent director would be appointed by the Mayor of the City prior to any such actions.

Pursuant to a sale agreement authorized by Division 13 of Article 8 of the Illinois Municipal Code, in 2017 the City entered into an Assignment, Purchase and Sale Agreement ("Sale Agreement") with the STSC under which the City sold its right, title and interest in and to certain sales tax revenues collected by the State (the "Sales Tax Revenues"). The Sales Tax Revenues consist of (a) revenues resulting from collection of three separate taxes (collectively, the "Home Rule Sales Tax Revenues") imposed by the City pursuant to its home rule powers and authority granted by State statute; and (b) revenues resulting from the collection of four separate taxes (collectively, the "Local Share Sales Tax Revenues") imposed by the State. In exchange for selling its right, title and interest in the Sales Tax Revenues, the City received a residual certificate which represents the City's ownership interest in excess Sales Tax Revenues to be received by the STSC to pay debt service requirements of any outstanding obligations and administrative costs during the term of the Sale Agreement. The Sale Agreement is effective until there are no secured obligations outstanding for the STSC.

On December 14, 2017, the STSC issued \$743.7 million of bonds (the "2017 Bonds") to provide funds for the STSC to use, along with the proceeds of any additional bonds issued by the STSC. The proceeds from the 2017 Bonds were applied by the City to refund all of the outstanding City of Chicago Sales Tax Revenue Bonds and refund certain of the City's outstanding general obligation bonds.

The STSC provides benefits exclusively to the City, and as a result, is presented as a blended component unit of the City.

The City reports the General Fund of the STSC as a non-major special revenue fund and the Debt Service Fund of the STSC as a major debt-service fund.

Complete financial statements of the STSC can be obtained at [www.salestaxsecuritizationcorporation.com](http://www.salestaxsecuritizationcorporation.com).

The City's officials are responsible for appointing a voting majority of the members of the boards of other organizations, but the City's accountability for these organizations does not extend beyond making appointments and no financial accountability or fiscal dependency exists between the City and these organizations. Therefore, the Chicago Park District, Chicago Public Building Commission, Chicago Public Schools, Community College District No. 508, Chicago Housing Authority and the Chicago Transit Authority are deemed to be related organizations.

b) **Government-wide and fund financial statements** - The government-wide financial statements (i.e., the statement of net position and the statement of activities) report information on all of the nonfiduciary activities of the government. For the most part, the effect of interfund activity has been removed from these statements. Governmental activities, which normally are supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely to a significant extent on user fees and charges for services.

The statement of activities demonstrates the degree to which the direct expenses of a given function or segment is offset by program revenues. Direct expenses are those that are clearly identified with a specific function or segment. Program revenues include: 1) charges to customers or applicants who purchase, use or directly benefit from goods, services, or privileges provided by a given function or segment and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Taxes and other items not included among program revenues are reported instead as general revenues. Separate fund financial statements are provided for governmental funds, proprietary funds, and fiduciary funds, even though the fiduciary funds are excluded from the government-wide financial statements. Major individual governmental funds and major individual enterprise funds are reported as separate columns

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in the fund financial statements.

c) **Measurement focus, basis of accounting, and financial statement presentation** - The government-wide financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting* as are the proprietary fund and fiduciary fund financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Governmental fund financial statements are reported 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 90 days of the end of the current fiscal period with the exception of property tax revenue, which is recorded as deferred inflows unless taxes are received within 60 days subsequent to year-end. Licenses and permits, charges for services and miscellaneous revenues are not considered to be susceptible to accrual and are recorded as revenues when received in cash. All other revenue items are considered to be measurable and available only when cash is received by the City. Expenditures generally are recorded when a liability is incurred, as under the accrual basis of accounting, except for interest and principal on long-term debt, the long-term portion of compensated absences, claims and judgments, and pension obligations.

The City reports the following major governmental funds:

**The General Fund** is the City's primary operating fund. It accounts for and reports all financial resources not accounted for and reported in another fund.

**Federal, State and Local Grants Fund** accounts for the expenditures for programs, which include general government, health, public safety, transportation, aviation, cultural and recreational, and capital outlays. The majority of revenues are provided by several agencies of the Federal government, departments of the Illinois State government and City resources.

**Special Taxing Areas Fund** accounts for expenditures for special area operations and maintenance and for redevelopment project costs as provided by tax levies on special areas.

**Service Concession and Reserve Fund** accounts for monies committed for mid- and long-term uses. The Mid-term portion is subject to appropriation for neighborhood human infrastructure programs, health, and other initiatives, whereas the Long-term portion is committed for future budgetary and credit rating stabilization. These reserves were created as a result of the Skyway Lease and Parking Meter System transactions. The deferred inflows result from long-term concession and lease transactions whose proceeds are recognized as revenue over the term of the agreements.

**Bond, Note Redemption and Interest Fund** accounts for the expenditures for principal and interest as provided by property tax, utility tax, sales tax, transportation tax, and investment income.

**STSC Debt Service Fund** accounts for the expenditures for principal and interest as provided by sales tax revenues.

**Community Development and Improvement Projects Funds** account for proceeds of debt used to acquire property, finance construction, and finance authorized expenditures and supporting services for various activities.

**Pension Fund** accounts for the City's contribution to the City's four Employees' Annuity and Benefit Funds as provided by the tax levy and other sources of revenue, including the allocable share from Enterprise Funds and Special Revenue Funds.

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Within the governmental fund types, fund balances are reported in one of the following classifications:

**Nonspendable** includes amounts that cannot be spent because they are either: (a) not in a spendable form; or (b) legally or contractually required to be maintained intact.

**Restricted** includes amounts that are restricted to specific purposes, that is, when constraints placed on the use of resources are either: (a) externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments; or (b) imposed by law through constitutional provisions or enabling legislation.

**Committed** includes amounts constrained to specific purposes by a government itself, using its highest level of decision-making authority (i.e., City Council); to be reported as committed, amounts cannot be used for any other purpose unless the government takes the same highest-level action to remove or change the constraint. The City's highest level of decision-making authority is held by the City Council. The City Council passes Ordinances to commit their fund balances.

**Assigned** includes amounts that are constrained by the City's intent to be used for specific purposes, but that are neither restricted nor committed. Intent is expressed by: (a) the City Council itself; or (b) a body or official to which the City Council has delegated the authority to assign amounts to be used for specific purposes. The Budget Director or Comptroller has authority to assign amounts related to certain legal obligations outside of the appropriation process within the General Fund. Within the other governmental fund types (special revenue, debt service, and capital projects) resources are assigned in accordance with the established fund purpose and approved appropriation. Residual fund balances in these fund types that are not restricted or committed are reported as assigned.

**Unassigned** includes the residual fund balance that has not been restricted, committed, or assigned within the General Fund and deficit fund balances of other governmental funds.

The City reports the following major proprietary funds as business-type activities:

**Water Fund** accounts for the operations of the Chicago Water System (Water). The Water system purifies and provides Lake Michigan water for the City and 125 suburbs. The Water Fund operates two water purification facilities with a combined output pumping capacity of 2,160 million gallons per day and 12 pumping stations with a combined pumping capacity of 3,661 million gallons per day.

**Sewer Fund** accounts for the operations of the Wastewater Transmission System (Sewer). The Sewer system transports wastewater to the Metropolitan Water Reclamation District of Greater Chicago for processing and disposal. This service is provided for the residents and businesses of the City and certain suburban customers.

**Chicago Midway International Airport Fund** records operations of Chicago Midway International Airport (Midway) that provides regional travelers with access to airlines that generally specialize in low-cost, point-to-point, origin and destination passenger services. Midway Airport is conveniently located 10 miles from downtown Chicago.

**Chicago-O'Hare International Airport Fund** records operations of Chicago-O'Hare International Airport (O'Hare), the primary commercial airport for the City. The airlines serving the Airport operate out of four terminal buildings with a total of 185 gates as of December 31, 2017. Three domestic terminal buildings, having a total of 165 aircraft gates serve domestic flights and certain international departures. The International Terminal, with 20 aircraft gates and four hardstand positions, serves the remaining international departures and all international arrivals.

**Chicago Skyway Fund** records operations of the Chicago Skyway (Skyway) which provides vehicle passage across the Calumet River, between the State of Indiana and the State of Illinois (State) through the operation of a tollway which consists of a 7.8-mile span connecting the Dan Ryan Expressway to the

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Indiana Toll Road. Facilities include a single toll plaza consisting of a central office, maintenance garage and toll collection area. In January 2005, the City entered into a long-term Concession and Lease Agreement of the Skyway, granting a private company the ability to operate and to collect toll revenue during the 99-year term of the agreement. The City received a one-time upfront payment of \$1.83 billion.

Additionally, the City reports the following fiduciary funds:

**Pension Trust Funds** report expenditures for employee pensions as provided by employee and employer contributions and investment earnings.

**Agency Funds** account for transactions for assets held by the City as agent for certain activities or for various entities. Payroll deductions and special deposits are the primary transactions accounted for in these funds.

As a general rule, the effect of interfund activity has been eliminated from the government-wide financial statements. Exceptions to this general rule are payment-in-lieu of taxes and other charges between the City's water, sewer, airports and skyway funds. Elimination of these charges would distort the direct costs and program revenues reported for the various functions concerned.

Amounts reported as program revenues include: (1) charges to customers or applicants for goods and services, or privileges provided, or fines; (2) operating grants and contributions; and (3) capital grants and contributions, including special assessments. General revenues include internally dedicated resources and taxes.

Certain indirect costs have been included as part of the program expenses reported for the various functional activities.

In the fund financial statements, 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 principal ongoing operations. The principal operating revenues of the water and sewer funds are charges to customers for sales and services. The airport funds' principal operating revenues are derived from landing fees and terminal use charges as well as rents and concessions. 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.

When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources, as they are needed.

The preparation of financial statements in conformity with GAAP requires management to make certain 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. Accordingly, actual results could differ from those estimates.

**d) Assets, liabilities, deferred inflows, deferred outflows, and net position or equity**

i) **Cash, Cash Equivalents and Investments** generally are held with the City Treasurer as required by the Code. Interest earned on pooled investments is allocated to participating funds based upon their average combined cash and investment balances. Due to contractual agreements or legal restrictions, the cash and investments of certain funds are segregated and earn and receive interest directly. The City uses separate escrow accounts in which certain tax revenues are deposited and held for payment of debt.

The Code permits deposits only to City Council-approved depositories, which must be regularly organized state or national banks and federal and state savings and loan associations, located within the City, whose deposits are federally insured.

Investments authorized by the Code include interest-bearing general obligations of the City, State and U.S. Government; U.S. Treasury bills and other noninterest-bearing general obligations of the U.S.

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Government purchased in the open market below face value; commercial paper and State and Local Government Series (SLGS), domestic money market funds regulated and in good standing with the Securities and Exchange Commission and tax anticipation warrants issued by the City. The City is prohibited by ordinance from investing in derivatives, as defined, without City Council approval. The City values its investments at fair value or amortized cost. U.S. Government securities purchased at a price other than par with a maturity of less than or equal to one year are reported at amortized cost.

The City's four retirement plans are authorized to invest in bonds, notes, and other obligations of the U.S. Government; corporate debentures and obligations; insured mortgage notes and loans; common and preferred stocks; stock options; real estate; and other investment vehicles as set forth in the Illinois Compiled Statutes. These investments are reported at fair value.

Repurchase agreements can be purchased only from banks and certain other institutions authorized to do business in the State. The City Treasurer requires that securities that are pledged to secure these agreements have a fair value equal to the cost of the repurchase agreements plus accrued interest.

Investments generally may not have a maturity date in excess of thirty years from the date of purchase. Certain other investments are held in accordance with the specific provisions of applicable ordinances. Cash equivalents include certificates of deposit and other investments with maturities of three months or less when purchased.

Deficit cash balances result in interfund borrowings from the aggregate of funds other than escrowed funds. Interest income and expense are generally not recognized on these interfund borrowings.

State statutes, the City and the City's Pension Plans' policies permit lending securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. Securities lent at year-end for cash collateral are presented as not categorized in the schedule of custodial credit risk; securities lent for securities collateral are classified according to the category for the collateral.

**Securities Lending by the Pension Plans** - The State Statutes and the Board of Trustees permit the Pension Plans to lend its securities to broker-dealers and other entities with a simultaneous agreement to return collateral for the same securities in the future. The Plans' custodians, acting as the lending agent, lends securities for collateral in the form of cash, U.S. Government obligations and irrevocable letters of credit equal to 102% of the fair value of domestic securities plus accrued interest and 105% of the fair value of foreign securities plus accrued interest. The Plan does not have the right to sell or pledge securities received as collateral unless the borrower defaults. All securities loans can be terminated on demand within a period specified in each agreement by either the Funds or the borrowers. The contracts with the Fund's custodian require the securities lending agent to indemnify the Funds.

**Municipal Employees'** - The average term of securities loaned was 75 days at December 31, 2017. The cash collateral is invested in tri-party repurchase agreements and bank deposits which had a weighted average maturity of 34 days at December 31, 2017.

**Laborers' Employees'** - The average term of securities loaned was 67 days at December 31, 2017. Cash collateral may be invested in a short-term investment pool, which had a weighted average maturity of 28 days at December 31, 2017.

**Policemen's Employees'** - The average term of the Fund's loan was approximately 1 day as of December 31, 2017. Cash collateral was reinvested in indemnified repurchase agreements which had an interest sensitivity of 3.48 days at December 31, 2017.

**Firemen's Employees'** - The average term of securities loaned was 59 days in 2017. Cash collateral may be invested in a short-term investment pool, which had a weighted average maturity of 27 days at December 31, 2017.

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ii) **Receivables and Payables** activity between funds are representative of services rendered, outstanding at the end of the fiscal year, and are referred to as either "due to/from other funds" (i.e., the current portion of interfund loans) or "advances to/from other funds" (i.e., the noncurrent portion of interfund loans). Any residual balances outstanding between the governmental activities and business-type activities are reported in the government-wide financial statements as "internal balances."

All trade and property tax receivables are shown net of an allowance for uncollectibles. The allowance is based on historical trends. The estimated value of services provided but unbilled at year-end has been included in receivables.

iii) **Inventory** includes government-wide inventories, which are stated at cost determined principally, using the average cost method. For proprietary funds, the costs of inventories are recorded as expenses when used (consumption method). Governmental fund inventories are accounted for using the purchases method and represent nonspendable resources because they do not represent expendable available financial resources.

iv) **Restricted Assets** include certain proceeds of the City's enterprise fund revenue bonds, as well as certain resources set aside for their repayment. These assets are classified as restricted or committed in the basic financial statements because they are maintained in separate bank accounts and their use is limited by applicable bond covenants or specific City Council action.

The Water and Sewer funds maintain Rate Stabilization Accounts where any net revenues remaining after providing sufficient funds for all required deposits in the bond accounts may be transferred upon the direction of the City to be used for any lawful purpose of the specific fund.

The O'Hare and Midway funds maintain Passenger Facility Charge accounts as restricted as they are subject to Federal Aviation Administration regulation and approval, to finance specific eligible capital and debt related activities.

v) **Capital Assets**, which include property, plant, equipment, and infrastructure assets (e.g. roads, bridges, sidewalks, and similar items), are reported in the applicable governmental or business-type activities columns in the government-wide financial statements. Capital assets are defined by the City as assets, or a network of assets, with an initial cost of more than \$5,000 (not rounded) and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend assets' lives are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets of business-type activities is included as part of the capitalization value of the assets constructed. The total interest expense (Governmental and Business Activities) incurred by the City during the current fiscal year was \$1,265.3 million, of which \$91.5 million was capitalized as part of the capital assets under construction projects in proprietary funds.

Property, plant, and equipment of the City are depreciated using the straight-line method, in the year subsequent to acquisition or when placed into service, over the following estimated useful lives:

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Utility plant.....	25 - 100 years
Utility structures and improvements.....	50 - 100 years
Buildings and improvements.....	10 - 40 years
Airport runways, aprons, tunnels, taxiways, and paved roads.....	30 years
Bridge infrastructure.....	10 - 40 years
Lighting infrastructure.....	25 years
Street infrastructure.....	10 - 25 years
Transit infrastructure.....	25 - 40 years
Equipment (vehicle, office, and computer) .....	5 - 20 years

The City has a collection of artwork and historical treasures presented for public exhibition and education that are being preserved for future generations. The proceeds from sales of any pieces of the collection are used to purchase other acquisitions. A portion of this collection is not capitalized or depreciated as part of capital assets.

**vi) Deferred Outflows** represent unamortized loss on bond refundings, the fair value of derivative instruments that are deemed to be effective hedges, differences between estimated and actual investment earnings related to pensions, changes in actuarial assumptions related to pensions and other pension related changes.

**vii) Employee Benefits** are granted for vacation and sick leave, workers' compensation and health care. Unused vacation leave is accrued and may be partially carried over for one year. Sick leave is accumulated at the rate of one day for each month worked, up to a maximum of 200 days. Severance of employment terminates all rights to receive compensation for any unused sick leave. Sick leave pay is not accrued. Employee benefit claims outstanding, including claims incurred but not reported, are estimated and recorded in the government-wide and proprietary fund financial statements. A liability for these amounts is reported in governmental funds only if they have matured, for example, as a result of employee resignations and retirements.

Employees are eligible to defer a portion of their salaries until future years under the City's deferred compensation plan created in accordance with Internal Revenue Code Section 457. The deferred compensation is not available to employees until termination, retirement, death or unforeseeable emergency. Third-party administrators who maintain the investment portfolio administer the Plan. The plan's assets have been placed in trust accounts with the plan administrators for the exclusive benefit of participants and their beneficiaries and are not considered assets of the City.

The City is subject to the State of Illinois Unemployment Compensation Act and has elected the reimbursing employer option for providing unemployment insurance benefits for eligible former employees. Under this option, the City reimburses the State for claims paid by the State. Expenditures for workers' compensation are recorded when paid in the governmental funds. A liability for these amounts is recorded in the government-wide and proprietary fund financial statements.

**viii) Judgments and claims** are included in the government-wide financial statements and proprietary fund types. Uninsured claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported. In the fund financial statements, expenditures for judgments and claims are recorded on the basis of settlements reached or judgments entered within the current fiscal year. Amounts that relate to deferred compensatory time and reserves for questioned costs are treated the same way.

**ix) Long-term obligations** are included in the government-wide financial statements and proprietary fund types in the fund financial statements. Long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities, business-type activities, or proprietary fund type statement of net position. Bond premiums and discounts, as well as issuance costs, are deferred and

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amortized over the life of the related debt, except in the case of refunding debt transactions where the amortization period is over the term of the refunding or refunded debt, whichever is shorter.

The City enters into interest rate swap agreements to modify interest rates and/or cash flows on outstanding debt. For existing swaps, the net interest expenditures resulting from these arrangements are recorded as interest expense. The fair value of derivative instruments that are deemed to be effective is accounted for as deferred outflows. Derivative instruments that are deemed not effective are adjusted to fair value with the change in fair value recorded to investment earnings. Under certain bond ordinances adopted by the City Council, interest rate swaps and swaptions are authorized to be entered into by designated City officials in connection with certain bonds issued by the City. For swaps related to Midway Bonds, airline approval is also required before entering into a swap agreement.

In the fund financial statements, governmental funds recognize bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums received and discounts given on debt issued are reported as other financing sources or uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as expenditures.

Certain debt obligations are to be paid from sales tax, motor fuel or special area taxes.

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the City's four pension plans and additions to/deductions from the City's Pension Plans fiduciary net position have been determined on the same basis as they are reported by the Pension Plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. The financial statements of the Plans are prepared using the accrual basis of accounting.

- x) **Deferred inflows** represent amounts to be recognized as revenue on a straight line basis over the life of the related long-term lease and concession agreements and differences between projected and actual actuarial experience related to pensions, and other pension related changes. In the fund financials, grants that meet all of the eligibility criteria except for time availability and property taxes levied for a future period are also included in deferred inflows.
- xi) **Net Position** in the government-wide statements is classified in three components:

- (1) Net investment in capital assets - Consists of capital assets including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes or any other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
- (2) Restricted net position - Consists of net position with constraints placed on the use either by external groups such as creditors, grantors, contributors, or laws or regulations of other governments, or are legally restricted through constitutional provisions or enabling legislation.

Restricted net position for business activities are provided in Exhibit 7, Statement of Net Position, Proprietary Funds.

- (3) Unrestricted - All other net positions that do not meet the definition of "restricted" or "net investment in capital assets." As of December 31, 2017, the unrestricted net position represents a deficit.

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**2) Reconciliation of Government-wide and Fund Financial Statements**

**a) Explanation of certain differences between the governmental funds balance sheet and the government-wide statement of net position.**

i) The governmental funds balance sheet includes a reconciliation between fund balance – total governmental funds and net position - governmental activities as reported in the government-wide statement of net position. One element of that reconciliation explains that "Other long-term assets are not available to pay for current-period expenditures and therefore are deferred in the funds." The details of this \$1,832.9 million are as follows (dollars in thousands):

Deferred inflows - property tax .....	\$ 1,582,968
Deferred inflows - grants .....	243,150
Deferred inflows - charges for services .....	1,968
Deferred inflows - utility tax .....	4,796
Net adjustment to increase fund balance - total governmental funds - to arrive at net position - governmental activities .....	<u>\$ 1,832,882</u>

ii) Another element of that reconciliation explains that "Certain liabilities and deferred outflows, including bonds payable, are not due and payable in the current period and therefore are not reported in the funds." The details of this \$40,923.8 million are as follows (dollars in thousands):

Long-term liabilities:	
Total bonds, notes and certificates payable .....	\$ (11,117,049)
Pension benefits .....	(25,058,993)
Other postemployment benefits .....	(187,641)
Pollution remediation .....	(35,044)
Claims and judgments .....	<u>(1,012,756)</u>
Total Long-term liabilities .....	(37,411,483)
Accounts payable - infrastructure retainage .....	(7,557)
Bonds, notes and other obligations payable current .....	81,297
Deferred outflows-unamortized loss on refunding .....	177,493
Deferred outflows-pension costs .....	3,912,377
Deferred inflows-pension .....	(6,900,534)
Accrued and other liabilities - compensated absences .....	(85,098)
Accrued and other liabilities - pension payable to pension funds ....	<u>(690,329)</u>
Net adjustment to reduce fund balance - total governmental funds - to arrive at net position - governmental activities .....	<u>\$ (40,923,834)</u>

**b) Explanation of certain differences between the governmental funds' statement of revenues, expenditures, and changes in fund balances and the government-wide statement of activities.**

i) The governmental funds statement of revenues, expenditures, and changes in fund balances includes a reconciliation between net changes in fund balances - total governmental funds and changes in net position - governmental activities as reported in the government-wide statement of activities. One element of that reconciliation explains that "Governmental funds report capital outlays as expenditures. However, in the statements of activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense." The details of this \$127.8 million are as follows (dollars in thousands):

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Capitalized asset expenditures .....	\$ 527,205
Depreciation expense .....	<u>(399,446)</u>
Net adjustment to increase net changes in fund balances - total governmental funds - to arrive at changes in net position - governmental activities .....	<u>\$ 127,759</u>

ii) Another element of that reconciliation states that "Bond proceeds provide current financial resources to governmental funds, but issuing debt increases long-term liabilities in the statement of net position." The details of this decrease of \$802.6 million are as follows (dollars in thousands):

Proceeds of debt .....	\$ (1,923,972)
Proceeds from line of credit .....	(77,203)
(Premium) / Discount .....	(12,161)
Payment to refunded bond escrow agent .....	971,766
Principal retirement .....	353,945
Interest expense .....	<u>(115,016)</u>
Net adjustment to reduce net changes in fund balances - total governmental funds - to arrive at changes in net position - governmental activities ..	<u>\$ (802,641)</u>

Another element of that reconciliation states that "Certain expenses reported in the statement of activities do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds." The details of this decrease of \$1,428.8 million are as follows (dollars in thousands):

Claims and judgments .....	\$ (70,134)
Pension costs .....	(1,341,837)
Other post employment benefit liabilities .....	(20,432)
Pollution remediation .....	(1,843)
Vacation .....	3,267
Inventory .....	<u>2,214</u>
Net adjustment to reduce net changes in fund balances - total governmental funds - to arrive at changes in net position - governmental activities .....	<u>\$ (1,428,765)</u>

**3) Stewardship, Compliance and Accountability**

a) **Annual Appropriation Budgets** are established for the General Fund and the Vehicle Tax, Pension, Chicago Public Library and certain Miscellaneous, Special Events, Tourism and Festivals nonmajor Special Revenue Funds, on a non-GAAP budgetary basis:

- i) Prior to October 15, the Mayor submits to the City Council a proposed budget of expenditures and the means of financing them for the next year.
- ii) The budget document is available for public inspection for at least ten days prior to passage of the annual appropriation ordinance by the City Council, which is also required to hold at least one public hearing.
- iii) Prior to January 1, the budget is legally enacted through passage of the appropriation ordinance.

**CITY OF CHICAGO, ILLINOIS**  
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- iv) Subsequent to the enactment of the appropriation ordinance, the City Council has the authority to make necessary adjustments to the budget, which results in a change in total or individual appropriations. The legal level of budgetary control is designated in the budget by object grouped by purpose.
- v) All annual appropriations unused and unencumbered lapse at year-end. Encumbered appropriations are carried forward to the following year. Project-length financial plans are adopted for Capital Project Funds. Appropriations for Debt Service Funds are established by bond ordinance.
- b) **Reconciliation of GAAP Basis to Budgetary Basis** - The City's budgetary basis of accounting used for budget vs. actual reporting differs from GAAP. For budgetary purposes, encumbrances are recorded as expenditures but are included in "Unassigned" fund balance for GAAP purposes. For budgetary purposes, proceeds of long-term debt and transfers in are classified as revenues. For budgetary purposes prior years' resources used to cover current year budgetary expenditures are recorded as revenues. For GAAP purposes, proceeds of long-term debt and transfers out are treated as other financing sources. Provision for doubtful account expenditures are not budgeted. A reconciliation of the different basis of revenue and expenditure recognition for the year ended December 31, 2017 is as follows (dollars in thousands):

	<b>General Fund</b>
Revenues, GAAP Basis .....	\$ 3,559,459
Add:	
Transfers In .....	180,227
Revenues, Budgetary Basis .....	<u>\$ 3,739,686</u>
Expenditures, GAAP Basis .....	\$ 3,454,858
Add:	
Transfers Out .....	268,263
Encumbered in 2017.....	16,857
Deduct:	
Payments on Prior Years' Encumbrances .....	(24,511)
Payments on Prior Years' Assignments .....	(15,000)
Expenditures, Budgetary Basis .....	<u>\$ 3,700,467</u>

- c) **Individual Fund Deficits** include the Chicago Skyway Fund, an Enterprise Fund, which has a fund deficit of \$1,334.4 million which management anticipates will be funded through recognition of deferred inflows. Midway International Airport Fund has a fund deficit of \$307.0 million which will be funded through future revenues. Federal State and Local Grants, a governmental fund, has a deficit of \$241.4 million and will be funded by the recognition of deferred grant inflows and unearned revenue. The Service Concession and Reserve Fund, a Special Revenue Fund, has a deficit fund balance of \$844.9 million which will be funded through the recognition of deferred inflows. The Bond, Note Redemption and Interest Fund, a Debt Service Fund, has a deficit fund balance of \$329.0 million which will be funded through the amortization of the deferred inflow associated with the City's sale of sales tax revenues to the STSC. The STSC is a blended component unit and for presentation purposes deferred inflows have been reclassified as internal balances.

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**4) Restricted and Unrestricted Cash, Cash Equivalents and Investments**

**a) Investments** As of December 31, 2017, the City had the following investments (dollars in thousands):

Investment Type	Maturities (in Years)					Total
	Less Than 1	1-5	6-10	More Than 10		
<b>City Funds</b>						
U.S. Treasuries .....	\$ 312,630	\$ 4,925	\$ -	\$ -	\$ 317,555	
U.S. Agencies* .....	726,748	656,544	9,426	-	1,392,718	
Commercial Paper .....	1,250,365	-	-	-	1,250,365	
Corporate Bonds .....	136,926	548,752	513,464	281,912	1,481,054	
Corporate Equities .....	795	-	-	-	795	
Certificates of Deposit and						
Other Short-term .....	2,645,371	-	-	-	2,645,371	
Municipal Bonds .....	122,058	417,873	240,088	354,166	1,134,185	
State and Local						
Government Series .....	127,134	151,670	-	-	278,804	
Total City Funds .....	<u>\$ 5,322,027</u>	<u>\$ 1,779,764</u>	<u>\$ 762,978</u>	<u>\$ 636,078</u>	<u>\$ 8,500,847</u>	

\*U.S. Agencies include investments in government-sponsored enterprises such as Federal National Mortgage Association, Federal Home Loan Banks, and Federal Home Loan Mortgage Corporation.

Included in the table above are investments held with escrow agent.

<b>Pension Trust Funds</b>						
U.S. and Foreign						
Government Agencies .....	\$ 30,274	\$ 202,007	\$ 153,378	\$ 309,289	\$ 694,948	
Corporate Bonds .....	765,765	387,022	290,255	206,566	1,649,608	
Corporate Equities .....	5,062,007	-	-	-	5,062,007	
Pooled Funds .....	128,774	20,915	-	-	149,689	
Real Estate .....	569,995	-	-	-	569,995	
Securities Received from						
Securities Lending .....	553,047	-	-	-	553,047	
Venture Capital .....	463,693	-	-	-	463,693	
Certificates of Deposit and						
Other Short-term .....	292,872	-	-	-	292,872	
Derivatives .....	27,924	-	-	-	27,924	
Other .....	31,155	126,055	74,365	-	231,575	
Total Pension Trust Funds .....	<u>\$ 7,925,506</u>	<u>\$ 735,999</u>	<u>\$ 517,998</u>	<u>\$ 515,855</u>	<u>\$ 9,695,358</u>	
Total .....	<u>\$ 13,247,533</u>	<u>\$ 2,515,763</u>	<u>\$ 1,280,976</u>	<u>\$ 1,151,933</u>	<u>\$ 18,196,205</u>	

**City's Fair Value Measurements for Investments:**

The City categorizes the fair value measurements of its investments based on the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation techniques used to measure fair value.

Level 1 - Inputs are unadjusted quoted prices in active markets for identical assets

Level 2 - Observable inputs other than quoted market prices, and

Level 3 - Unobservable Inputs

Investments that are valued using net asset value per share (NAV) (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

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The investments measured value at fair value as of December 31, 2017 are as follows (dollars in thousands):

<b>Investments by Fair Value Level</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. Treasuries .....	\$ -	\$ 45,797	\$ -
U.S. Agencies .....	-	1,252,599	-
Corporate Bonds .....	-	1,457,667	-
Municipal Bonds .....	-	1,111,777	-
State and Local Government Series .....	-	217,792	
<b>Total Investments at Fair Value .....</b>	<b>\$ -</b>	<b>\$ 4,085,632</b>	<b>\$ -</b>

Money market investments and participating interest-earning investment contracts that have a remaining maturity at the time of purchase of one year or less and are held by governments other than the external investment pools are measured at amortized cost and are not reflected in the table above. The total of these investments at amortized cost for the City are \$4,415.2 million.

Pension Trust Funds' Investments (Dollars in thousands):

<b>Summary</b>	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
U.S. and Foreign				
Government Agencies ..	\$ 694,948	\$ -	\$ 694,827	\$ 121
Corporate Bonds .....	1,130,862	-	1,130,794	68
Corporate Equities .....	4,502,197	4,497,635	4,062	500
Pooled Funds .....	124,230	5,711	118,519	-
Real Estate .....	15,100	15,100	-	-
Securities Received from Securities Lending .....	553,047	-	553,047	-
Certificates of Deposit and Other Short-term ....	222,732	30,117	192,590	25
Derivatives .....	27,924	-	27,924	-
Other .....	204,719	-	204,719	-
Subtotal .....	<b>7,475,759</b>	<b>4,548,563</b>	<b>2,926,482</b>	<b>714</b>

<b>Investments measured at net asset value:</b>	<b>Unfunded Commitments</b>	<b>Redemption Frequency</b>	<b>Redemption Notice</b>
Corporate Bonds .....	\$ 518,746	\$ 9,450	as needed
Corporate Equities .....	559,810	-	as needed; quarterly, not eligible
Pooled Funds .....	25,459	-	
Real Estate .....	554,895	54,201	as needed; quarterly, N/A
Venture Capital .....	463,693	126,215	as needed or N/A
Certificates of Deposit and Other Short-term ....	70,140	-	60/90 days, open end or N/A
Other * .....	26,856	77,476	90 days or N/A
Subtotal .....	<b>2,219,599</b>		
Total .....	<b>\$ 9,695,358</b>		

\* Other includes Fixed Assets & Hedge Fund of Funds.

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Corporate bonds - Include debt instruments created by companies for the purpose of raising capital and pay a specified amount of interest on a regular basis.

Corporate equities - Include investments in funds primarily holding publicly traded US and non-US equity securities.

Pooled funds - Include investments that are pooled to maximize the total return.

Real estate funds - Include investments in open and closed-end real estate funds. Investments in open-end funds have limited redemption availability as redemption opportunities are based on available liquidity. Closed-end funds do not offer redemptions. Distributions from closed-end funds will be received as the underlying investments are liquidated.

Venture capital - Includes investments where the objective is to achieve long-term capital appreciation, preserve capital, and achieve a consistent pattern of returns through investments in limited partnerships, privately issued securities, private equity funds, and other pooled investments with a focus on the venture sector and undervalued alternative investments. Closed-end limited partnership interests are generally illiquid and cannot be redeemed.

Short-term investments - Include short-term investments of high quality and low risk to protect capital while achieving investment returns.

Other - Includes Hedge Funds of long/short equity hedge fund-of-funds.

- i) *Interest Rate Risk* – As a means of limiting its exposure to fair value losses arising from rising interest rates, the City's investment policy limits all securities so purchased, except tax anticipation warrants, municipal bonds, notes, commercial paper or other instruments representing a debt obligation of the City, which shall show on their face that they are fully payable as to principal and interest, where applicable, if any, within thirty years from the date of purchase.
- ii) *Credit Risk* – With regard to credit risk, the Code limits the investments in securities to:
  - (1) Interest-bearing general obligations of the United States and the State of Illinois;
  - (2) United States treasury bills and other non-interest bearing general obligations of the United States or United States government agencies when offered for sale at a price below the face value of same, so as to afford the City a return on such investment in lieu of interest;
  - (3) Tax anticipation warrants, municipal bonds, notes, commercial paper or other instruments representing a debt obligation issued by the City, the Chicago Board of Education, the Chicago Housing Authority, the Chicago Park District, the Chicago Transit Authority, and the City Colleges of Chicago;
  - (4) Commercial paper which: (1) at the time of purchase, is rated in the two highest classifications by at least two accredited ratings agencies; and (2) matures not more than 270 days after the date of purchase;
  - (5) Reverse repurchase agreement if: (1) the term does not exceed 90 days; and (2) the maturity of the investment acquired with the proceeds of the reverse repurchase agreement does not exceed the expiration date of the reverse repurchase agreement; Reverse repurchase agreements may be transacted with primary dealers and financial institutions, provided that the City has on file a master repurchase agreement;
  - (6) Certificates of deposit of banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance; provided that any amount of the deposit in excess of the federal deposit insurance shall be collateralized as noted in *Custodial Credit Risk – Cash and Certificates of Deposit* below;

**CITY OF CHICAGO, ILLINOIS**  
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- (7) Bankers acceptance of banks whose senior obligations, at the time of purchase, are rated in either the AAA or AA rating categories by at least two accredited ratings agencies;
- (8) Tax-exempt securities exempt from federal arbitrage provisions applicable to investments of proceeds of the City's tax-exempt debt obligations;
- (9) Domestic money market mutual funds regulated by and in good standing with the Securities and Exchange Commission; provided that such money market mutual funds' portfolios are limited to investments authorized by this section;
- (10) Any other suitable investment instrument permitted by state laws governing municipal investments generally, subject to the reasonable exercise of prudence in making investments of public funds;
- (11) Except where otherwise restricted or prohibited, a non-interest-bearing savings account, non-interest-bearing checking account or other non-interest bearing demand account established in a national or state bank, or a federal or state savings and loan association, when, in the determination of the treasurer, the placement of such funds in the non-interest bearing account is used as compensating balances to offset fees associated with that account that will result in cost savings to the City;
- (12) Bonds of companies organized in the United States with assets exceeding \$1.0 billion that, at the time of purchase, are rated not less than two classes above investment grade, or equivalent rating, by at least two accredited ratings agencies;
- (13) Debt instruments of international financial institutions, including but not limited to the World Bank and the International Monetary Fund, that, at the time of purchase, are rated within four intermediate credit ratings of the United States sovereign credit rating by at least two accredited ratings agencies, but not less than an A-rating, or equivalent rating. The maturity of investments authorized in this subsection shall not exceed 10 years. For purposes of this subsection, an "international financial institution" means a financial institution that has been established or chartered by more than one country and the owners or shareholders are generally national governments or other international institutions such as the United Nations;
- (14) United States dollar denominated debt instruments of foreign sovereignties that, at the time of purchase, are rated within four intermediate credit ratings of the United States sovereign credit rating by at least two accredited ratings agencies, but not less than an A-rating or equivalent rating;
- (15) Interest-bearing bonds of any county, township, city, village, incorporated town, municipal corporation, or school district, of the State of Illinois, of any other state, or of any political subdivision or agency of the State of Illinois or of any other state, whether the interest earned thereon is taxable or tax-exempt under federal law. The bonds shall be registered in the name of the city or held under a custodial agreement at a bank. The bonds shall be rated, at the time of purchase, not less than A-, or equivalent rating, by at least two accredited rating agencies with nationally recognized expertise in rating bonds of states and their political subdivisions;
- (16) Bonds registered and regulated by the Securities and Exchange Commission and for which the full faith and credit of the State of Israel is pledged for payment; provided that the bonds have an A-rating or above or equivalent rating by at least two accredited ratings agencies;
- (17) Bonds, notes, debentures, or other similar obligations of agencies of the United States rated, at the time of purchase, no less than AAA by at least two accredited rating agencies.
- (18) Asset-backed or agency mortgage-backed securities, any of which are rated at least investment grade by at least two accredited rating agencies, but no funds may be invested in: (1) obligations the payment of which represents the coupon payments on the outstanding principal balance of the underlying mortgage-backed security collateral that pays no principal (e.g., MBS Interest-Only Strips); (2) obligations the payment of which represents the principal balance repayments from the underlying mortgage-backed security collateral that pays no interest (e.g., MBS Principal-Only Strips); (3) collateralized mortgage obligations ("CMOs") that have a stated final maturity date of greater than 10

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years; and (4) CMOs the interest rate of which is determined in a manner that adjusts in the opposite direction to the changes in a market index (e.g.. Inverse Floating Rate CMOs).

(19)Interest in the Chicago Community Catalyst Fund.

Total holdings across all funds held by the City shall have no less than an overall average rating of Aa1 on a quarterly basis, as rated by two accredited rating agencies. The following schedule summarizes the City's and Pension Trust Funds' exposure to credit risk (in thousands):

Quality Rating	City	Quality Rating	Pension Trust Funds
Aaa/AAA .....	\$ 2,855,158	Aaa/AAA .....	\$ 226,045
Aa/AA .....	2,856,880	Aa/AA .....	104,250
A/A .....	1,017,335	A/A .....	198,350
Baa/BBB .....	88,882	Baa/BBB .....	330,375
Ba/BB .....	-	Ba/BB .....	220,051
B/B .....	-	B/B .....	148,547
Caa/CCC .....	-	Caa/CCC .....	22,198
Ca .....	-	Ca .....	455
C/CC .....	-	CC/C .....	4,634
D/D .....	-	D/D .....	3,962
P1/A1 .....	1,320,670	Not Rated .....	327,372
P2/A2 .....	18,249	Other .....	431,137
MIG1/SP-1+ .....	12,168		
MIG2/SP-1+ .....	-		
Not Rated* .....	331,505		
Total Funds .....	<u>\$ 8,500,847</u>		<u>\$ 2,017,376</u>

\* Not rated is primarily composed of money market mutual funds.

iii) *Custodial Credit Risk – Cash and Certificates of Deposit:* This is the risk that in the event of a bank failure, the City's Deposits may not be returned. The City's Investment Policy states that in order to protect the City public fund deposits, depository institutions are to maintain collateral pledges on City deposits and certificates of deposit during the term of the deposit.

For certificates of deposit of banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance, any amount of the deposit in excess of the federal deposit insurance shall be either: (1) fully collateralized at least 102 percent by: (i) marketable U.S. government securities marked to market at least monthly; (ii) bonds, notes, or other securities constituting the direct and general obligation of any agency or instrumentality of the United States; or (iii) bonds, notes or other securities constituting a direct and general obligation of any county, township, city, village, incorporated town, municipal corporation, or school district, of the State of Illinois or of any other state, or of any political subdivision or agency of the State of Illinois or any other state which are rated in either the AAA or AA rating categories by at least two accredited ratings agencies and maintaining such rating during the term of such investments; (2) secured by a corporate surety bond issued by an insurance company licensed to do business in the State of Illinois and having a claims-paying rating in the top rating category as rated by a nationally recognized statistical rating organization and maintaining such rating during the term of such investment; or (3) fully collateralized at least 102 percent by an irrevocable letter of credit issued in favor of the City by the Federal Home Loan Bank, provided that the Federal Home Loan Bank's short-term debt obligations are rated in the highest rating category by at least one accredited ratings agency throughout the term of the certificate of deposit.

The collateral required to secure City funds must be held in safekeeping and pursuant to collateral agreements which would prohibit release or substitution of pledged assets without proper written notification and authorization of the City Treasurer. The final maturity of acceptable collateral pledged shall not exceed 120 months.

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The bank balance of cash and certificates of deposit with the City's various municipal depositories was \$902.3 million. 96.6 percent of the bank balance was either insured or collateralized with securities held by City agents in the City's name. \$30.6 million was uncollateralized at December 31, 2017, and thus was subject to custodial credit risk.

- iv) *Custodial Credit Risk - Investments:*** For an investment, this is the risk that, in the event of the failure of the counterparty, the City will not be able to recover the value of its investments or collateral securities that are in possession of an outside party. The City has no custodial credit risk exposure because investment securities are insured, registered and held by the City.

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v) *Foreign Currency Risk* - In the case of the Pension Trust Funds, this is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The risk of loss is managed by limiting its exposure to fair value loss by requiring their international securities managers to maintain diversified portfolios. The following schedule summarizes the Pension Trust Funds' exposure to foreign currency risk (in thousands):

<b>Foreign Currency Risk</b>	
Argentine peso .....	\$ 709
Australian dollar .....	60,641
Brazilian real .....	38,165
British pound .....	259,862
Canadian dollar .....	70,708
Chilean peso .....	1,341
Chinese yuan .....	363
Colombian peso .....	5,123
Czech Republic koruna .....	2,436
Danish krone .....	35,792
Egyptian pound .....	519
European euro .....	450,794
HK Chinese Yuan renminbi .....	1
Hong Kong dollar .....	197,639
Hungarian forint .....	3,973
Indian rupee .....	62,099
Indonesian rupiah .....	25,002
Japanese yen .....	384,672
Kenyan shilling .....	534
Malaysian ringgit .....	8,226
Mexican peso .....	22,409
New Israeli shekel .....	8,322
New Taiwan dollar .....	49,023
New Zealand dollar .....	(5,134)
Norwegian krone .....	23,102
Pakistan rupee .....	81
Philippines peso .....	8,329
Polish zloty .....	2,234
Qatari riyal .....	276
Russian ruble .....	(808)
Singapore dollar .....	12,471
South African rand .....	36,362
South Korean won .....	68,993
Swedish krona .....	48,831
Swiss franc .....	86,238
Taiwan dollar .....	6,169
Thailand baht .....	18,449
Turkish lira .....	8,088
United Arab Emirates dirham ..	451
Total Pension Trust Funds .....	<u>\$ 2,002,485</u>

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vi) The following schedule summarizes the cash and investments reported in the basic financial statements (dollars in thousands):

Per Note 4:	
Investments - City .....	\$ 8,500,847
Investments - Pension Trust Funds .....	9,695,358
	<hr/>
	\$ 18,196,205
Per Financial Statements:	
Restricted Investments .....	\$ 3,069,989
Unrestricted Investments .....	2,007,736
Investments with Fiduciary Funds .....	9,009,391
Investments with Escrow Agent .....	665,528
Invested Securities Lending Collateral .....	553,047
Investments Included as Cash and Cash Equivalents on the Statement of Net Position .....	2,890,514
	<hr/>
	\$ 18,196,205

**5) Property Tax**

The City's property tax becomes a lien on real property on January 1 of the year it is levied. The Cook County Assessor (Assessor) is responsible for the assessment of all taxable real property within Cook County (County), except for certain railroad property assessed directly by the State. The County Board has established a triennial cycle of reassessment in which one-third of the County will be reassessed each year on a repeating schedule established by the Assessor.

Property in the County is separated into fifteen classifications for assessment purposes. After the Assessor establishes the fair market value of a parcel of land, that value is multiplied by one of the classification percentages to arrive at the assessed valuation (Assessed Valuation) for that parcel. These percentages range from 10.0 percent for certain residential, commercial, and industrial property to 25.0 percent for other commercial and industrial property.

The Illinois Department of Revenue has the statutory responsibility of ensuring uniformity of real property assessments throughout the State. Each year, the Illinois Department of Revenue furnishes the county clerks with an adjustment factor to equalize the level of assessment among counties. This factor (Equalization Factor) is then applied to the Assessed Valuation to compute the valuation of property to which a tax rate will be applied (Equalized Assessed Valuation). The County Clerk adds the Equalized Assessed Valuation of all real property in the County to the valuation of property assessed directly by the State of Illinois and subtracts total amounts of EAV in Tax Increment Financing Districts to arrive at the base amount (Tax Base) used in calculating the annual tax rates.

The County Clerk computes the annual tax rate by dividing the levy by the Tax Base and then computes the rate for each parcel of real property by aggregating the tax rates of all governmental units having jurisdiction over that particular parcel. The County Treasurer then issues the tax bills. Property taxes are deposited with the County Treasurer, who remits to the City its respective share of the collections. Taxes levied in one year become due and payable in two installments during the following year on March 1 and August 1 or 30 days from mailing of tax bills if later than July 1. The first installment is 55.0 percent of the prior year's tax bill. The second installment tax bill equals the total tax liability for the year minus the first installment tax bill amount.

The City Council adopted an ordinance effective in 1994 limiting the City's aggregate property tax levy to an amount equal to the prior year's aggregate property tax levy plus the lesser of (a) five percent or (b) the percentage increase in the annualized Consumer Price Index. The ordinance provides an exception for that portion of any property tax debt service levy equal to the aggregate interest and principal payments on the City's general obligation bonds and notes during the 12-month period ended January 1, 1994, subject to annual increase in the manner described above for the aggregate levy, all as provided by the ordinance. Most general obligation bond levies approved after 2001 have also been excluded from this limit. In 2015 the City Council added an exception for portions of the property tax levy used to meet the City's pension obligations.

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**6) Interfund Balances and Transfers**

a) The following balances at December 31, 2017 represent due from/to balances among all funds (dollars in thousands):

<b>Fund Type/Fund</b>	<b>Due From</b>	<b>Due To</b>
<b>Governmental Funds:</b>		
General .....	\$ 233,028	\$ 185,342
Federal, State and Local Grants .....	22,474	253,145
Special Taxing Areas .....	88,489	1,581
Service Concession and Reserve .....	30,940	-
Bond, Note Redemption and Interest * .....	412	769,064
STSC Debt Service * .....	769,064	-
Community Development and Improvement Projects ...	19,453	59,501
Pension .....	-	123,896
Nonmajor Governmental Funds .....	100,608	62,421
Total Governmental Funds .....	1,264,468	1,454,950
<b>Enterprise Funds:</b>		
Water .....	36,670	12,482
Sewer .....	22,238	8,904
Chicago Midway International Airport .....	1,583	9,537
Chicago-O'Hare International Airport .....	39,257	2,224
Chicago Skyway .....	-	15
Total Enterprise Funds .....	99,748	33,162
<b>Fiduciary activities:</b>		
Pension Trust .....	123,896	-
Total Fiduciary activities .....	123,896	-
<b>Total .....</b>	<b>\$ 1,488,112</b>	<b>\$ 1,488,112</b>

The balances result from the time lag between the dates that (1) interfund goods and services are provided or reimbursable expenditures occur, (2) transactions are recorded in the accounting system, and (3) payments between funds are made.

\* The STSC is a blended component unit of the City. The due from balance within the STSC Debt Service fund relates to the reclassification of amounts as a result of blending deferred outflows. The Due From within the STSC Debt Service fund and the Due To within the City's Bond, Notes Redemption and Interest fund represent the sale of sales tax revenues that will be amortized over the duration of the related bonds.

**CITY OF CHICAGO, ILLINOIS**  
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b) The following balances at December 31, 2017 represent interfund transfers among all funds (dollars in thousands):

<b>Fund Type/Fund</b>	<b>Transfer In</b>	<b>Transfer Out</b>
<b>Governmental Funds:</b>		
General .....	\$ 180,227	\$ 268,263
Special Taxing Areas .....	12,042	48,295
Service Concession and Reserve .....	-	21,060
Bond, Note Redemption and Interest .....	125,023	77,203
STSC Debt Service * .....	-	2,052
Community Development and Improvement Projects ...	17,128	5
Pension .....	109,416	-
Nonmajor Governmental Funds * .....	145,902	170,645
<b>Total Governmental Funds .....</b>	<b>589,738</b>	<b>587,523</b>
<b>Business-type activities:</b>		
Water .....	-	2,095
Sewer .....	-	120
<b>Total Business-type activities .....</b>	<b>-</b>	<b>2,215</b>
<b>Total .....</b>	<b>\$ 589,738</b>	<b>\$ 589,738</b>

Transfers are used to move revenues from the fund that the statute or budget requires to collect them to the fund that the statute or budget requires to expend them and to move receipts restricted to debt service from the funds collecting the receipts to the debt service fund as debt service payments become due.

\* The STSC is a blended component unit of the City. Included within the Transfer Out balance of the Nonmajor Governmental Funds is the transfer of the residual sales tax revenues from the STSC General Fund (blended as a nonmajor special revenue fund) to the City's General Fund.

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**7) Capital Assets**

a) **Capital Assets** activity for the year ended December 31, 2017 was as follows (dollars in thousands):

	<b>Balance January 1, 2017</b>	<b>Additions and Transfers</b>	<b>Disposals and Transfers</b>	<b>Balance December 31, 2017</b>
<b>Governmental activities:</b>				
Capital assets, not being depreciated:				
Land .....	\$ 1,397,316	\$ 6,302	\$ (3,840)	\$ 1,399,778
Works of Art and Historical Collections .....	45,976	1,048	-	47,024
Construction in Progress .....	741,043	409,339	(456,333)	694,049
<b>Total capital assets, not being depreciated .....</b>	<b>2,184,335</b>	<b>416,689</b>	<b>(460,173)</b>	<b>2,140,851</b>
Capital assets, being depreciated:				
Buildings and Other Improvements .....	2,664,568	38,115	(20,730)	2,681,953
Machinery and Equipment .....	1,523,894	94,277	(15,257)	1,602,914
Infrastructure .....	9,176,818	404,176	(4,267)	9,576,727
<b>Total capital assets, being depreciated .....</b>	<b>13,365,280</b>	<b>536,568</b>	<b>(40,254)</b>	<b>13,861,594</b>
Less accumulated depreciation for:				
Buildings and Other Improvements .....	1,079,142	69,379	(1,160)	1,147,361
Machinery and Equipment .....	1,284,234	48,397	(14,688)	1,317,943
Infrastructure .....	4,509,986	281,670	(105)	4,791,551
<b>Total accumulated depreciation .....</b>	<b>6,873,362</b>	<b>399,446</b>	<b>(15,953)</b>	<b>7,256,855</b>
<b>Total capital assets, being depreciated, net ....</b>	<b>6,491,918</b>	<b>137,122</b>	<b>(24,301)</b>	<b>6,604,739</b>
<b>Total governmental activities .....</b>	<b>\$ 8,676,253</b>	<b>\$ 553,811</b>	<b>\$ (484,474)</b>	<b>\$ 8,745,590</b>
 <b>Business-type activities:</b>				
Capital assets, not being depreciated:				
Land .....	\$ 1,027,752	\$ 998	\$ -	\$ 1,028,750
Construction in Progress .....	1,044,956	1,274,640	(445,909)	1,873,687
<b>Total capital assets, not being depreciated ....</b>	<b>2,072,708</b>	<b>1,275,638</b>	<b>(445,909)</b>	<b>2,902,437</b>
Capital assets, being depreciated:				
Buildings and Other Improvements .....	18,597,449	626,481	(108,944)	19,114,986
Machinery and Equipment .....	698,497	82,262	(235)	780,524
<b>Total capital assets, being depreciated .....</b>	<b>19,295,946</b>	<b>708,743</b>	<b>(109,179)</b>	<b>19,895,510</b>
Less accumulated depreciation for:				
Buildings and Other Improvements .....	5,569,441	414,189	(43,578)	5,940,052
Machinery and Equipment .....	401,658	18,944	(229)	420,373
<b>Total accumulated depreciation .....</b>	<b>5,971,099</b>	<b>433,133</b>	<b>(43,807)</b>	<b>6,360,425</b>
<b>Total capital assets, being depreciated, net ....</b>	<b>13,324,847</b>	<b>275,610</b>	<b>(65,372)</b>	<b>13,535,085</b>
<b>Total business-type activities .....</b>	<b>\$ 15,397,555</b>	<b>\$ 1,551,248</b>	<b>\$ (511,281)</b>	<b>\$ 16,437,522</b>
<b>Total Capital Assets .....</b>	<b>\$ 24,073,808</b>	<b>\$ 2,105,059</b>	<b>\$ (995,755)</b>	<b>\$ 25,183,112</b>

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b) **Depreciation expense** was charged to functions/programs of the City as follows (dollars in thousands):

Governmental activities:	
General Government .....	\$ 28,523
Public Safety .....	44,791
Streets and Sanitation .....	15,327
Transportation .....	290,683
Health .....	1,611
Cultural and Recreational .....	18,511
Total Depreciation Expense - Governmental activities ....	<u>\$ 399,446</u>
Business-type activities:	
Water .....	\$ 66,007
Sewer .....	44,970
Chicago Midway International Airport .....	51,443
Chicago-O'Hare International Airport .....	262,331
Chicago Skyway .....	8,382
Total Depreciation Expense - Business-type activities ....	<u>\$ 433,133</u>

8) **Leases**

a) **Operating Leases**

The City leases building and office facilities under noncancelable operating leases. Total costs for such leases were approximately \$16.3 million for the year ended December 31, 2017.

The future minimum lease payments for these leases are as follows (dollars in thousands):

2018 .....	\$ 17,098
2019 .....	4,803
2020 .....	3,155
2021 .....	2,587
2022 .....	1,914
2023 - 2027 .....	4,082
2028 - 2032 .....	109
2033 - 2037 .....	109
2038 - 2042 .....	109
Total Future Rental Expense.....	<u>\$ 33,966</u>

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**b) Lease Receivables**

Most of the O'Hare land, buildings and terminal space are leased under operating lease agreements to airlines and other tenants. The following is a schedule of the minimum future rental income on noncancelable operating leases as of December 31, 2017 (dollars in thousands):

2018 .....	\$ 186,533
2019 .....	93,958
2020 .....	4,680
2021 .....	4,680
2022 .....	4,839
2023 - 2027 .....	24,619
2028 - 2032 .....	25,300
2033 - 2037 .....	21,199
2038 - 2042 .....	14,315
2043 - 2047 .....	9,212
Thereafter .....	6,569
Total Minimum Future Rental Income .....	<u>\$ 395,904</u>

Contingent rentals that may be received under certain leases based on the tenants' revenues or fuel flow are not included in minimum future rental income. Rental income for O'Hare, consisting of all rental and concession revenues except ramp rentals and automobile parking, amounted to \$475.4 million, including contingent rentals of \$97.7 million.

Most of the Midway land and terminal space is leased under operating lease agreements to airlines and other tenants. The following is a schedule of the minimum future rental income on noncancelable operating leases as of December 31, 2017 (dollars in thousands):

2018 .....	\$ 53,004
2019 .....	27,569
2020 .....	27,569
2021 .....	27,569
2022 .....	27,569
2023 - 2027 .....	137,845
Total Minimum Future Rental Income .....	<u>\$ 301,125</u>

Contingent rentals that may be received under certain leases based on tenants' revenues are not included in minimum future rental income. Rental income for Midway, consisting of all rental and concession revenues except aircraft parking fees and certain departure fees (turns) and automobile parking, amounted to \$103.5 million, including contingent rentals of \$40.2 million.

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**9) Long-term Obligations**

a) Long-term Debt activity for the year ended December 31, 2017 was as follows (in thousands):

	<b>Balance</b> <b>January 1,</b> <b>2017</b>	<b>Additions</b>	<b>Reductions</b>	<b>Balance</b> <b>December 31,</b> <b>2017</b>	<b>Amounts</b> <b>Due</b> <b>within</b> <b>One Year</b>
<b>Governmental activities:</b>					
Bonds and notes payable:					
General obligation and other debt .....	\$ 9,173,009	\$ 1,237,463	\$ 723,845	\$ 9,686,627	\$ 114,147
Tax increment .....	33,520	-	5,595	27,925	5,710
Revenue .....	766,628	20,168	532,572	254,224	4,295
STSC .....	-	743,735	-	743,735	-
	<u>9,973,157</u>	<u>2,001,366</u>	<u>1,262,012</u>	<u>10,712,511</u>	<u>124,152</u>
Add unamortized premium/(discount) .....	118,300	12,161	41,786	88,675	-
Add accretion of capital appreciation bonds .....	318,844	31,374	34,355	315,863	21,553
Total bonds, notes and certificates payable .....	<u>10,410,301</u>	<u>2,044,901</u>	<u>1,338,153</u>	<u>11,117,049</u>	<u>145,705</u>
Other liabilities:					
Net pension liability .....	31,512,071	-	6,453,078	25,058,993	-
Other postemployment benefits obligation .....	167,209	20,432	-	187,641	-
Pollution remediation .....	33,201	1,843	-	35,044	-
Claims and judgments .....	942,622	166,436	96,302	1,012,756	110,903
Total other liabilities .....	<u>32,655,103</u>	<u>188,711</u>	<u>6,549,380</u>	<u>26,294,434</u>	<u>110,903</u>
Total governmental activities .....	<u><u>\$ 43,065,404</u></u>	<u><u>\$ 2,233,612</u></u>	<u><u>\$ 7,887,533</u></u>	<u><u>\$ 37,411,483</u></u>	<u><u>\$ 256,608</u></u>
<b>Business-type activities:</b>					
Revenue bonds and notes payable:					
Water .....	\$ 2,468,397	\$ 501,214	\$ 568,606	\$ 2,401,005	\$ 88,916
Sewer .....	1,692,820	460,654	292,093	1,861,381	56,201
Chicago-O'Hare International Airport .....	7,260,508	2,191,787	806,415	8,645,880	298,185
Chicago Midway International Airport .....	1,781,605	-	25,770	1,755,835	27,930
	<u>13,203,330</u>	<u>3,153,655</u>	<u>1,692,884</u>	<u>14,664,101</u>	<u>471,232</u>
Add unamortized premium/(discount) .....	815,420	320,904	95,949	1,040,375	-
Add accretion of capital appreciation bonds .....	85,363	7,397	10,251	82,509	10,584
Net pension liability .....	4,247,194	-	1,262,863	2,984,331	-
Total business-type activities .....	<u>\$ 18,351,307</u>	<u>\$ 3,481,956</u>	<u>\$ 3,061,947</u>	<u>\$ 18,771,316</u>	<u>\$ 481,816</u>
Total long-term obligations .....	<u><u>\$ 61,416,711</u></u>	<u><u>\$ 5,715,568</u></u>	<u><u>\$ 10,949,480</u></u>	<u><u>\$ 56,182,799</u></u>	<u><u>\$ 738,424</u></u>

The Pension obligation liability will be liquidated through a Special Revenue Fund (Pension Fund) as provided by tax levy and other operating revenues.

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**b) Issuance of New Debt**

**i) General Obligation Line of Credit**

During 2017, the City drew \$77.2 million from its Line of Credit to fund certain capital projects and operating uses. The City has excluded this line of credit amount from current liabilities, as it intends and has the ability to refinance the obligation on a long-term basis. As of December 31, 2017 the outstanding balance is \$77.2 million and the Line of Credit matures on September 24, 2019.

**ii) General Obligation Loans**

In February 2017, the City completed a refinancing of the outstanding Michael Reese Loan. The loan has a fixed interest rate of 3.55%, with a maturity date of June 30, 2024. Principal payments will be made semi-annually with the first semi-annual principal payment on the refinanced loan due on June 30, 2019. As of December 31, 2017, the outstanding balance is \$72.8 million.

**iii) General Obligation Bonds**

General Obligation Bonds, Tax Exempt Series 2017A (\$886.0 million) and Taxable Series 2017B (\$274.3 million) were sold at a discount in January 2017. The bonds have interest rates ranging from 5.625 percent to 7.045 percent and maturity dates from January 1, 2029 to January 1, 2038. Net proceeds of \$1,129.2 million will be used to pay a portion of the costs of 2017 projects (\$365.3 million), to refund or pay current and future interest, and refund a portion of certain outstanding General Obligation bonds (\$461.7 million), pay certain judgments and settlements (\$225.0 million), and fund capitalized interest (\$77.2 million). The refunding of interest only in the amount of \$213.4 million is reported as cash held with escrow agent in the City's financials. The refunding of the bonds increased the City's total debt service payments by \$514.8 million, resulting in a net economic loss of approximately \$32.3 million and a book loss of approximately \$2.6 million. A portion of the bond proceeds were deposited in an irrevocable trust with escrow agents to provide for all future debt service payments for certain outstanding bonds. Therefore, these bonds are considered to be defeased and the liability for those bonds has been removed from the government-wide statement of net position.

**iv) Revenue Loans**

In June 2013, the City entered into a loan agreement with the United States Department of Transportation under the Transportation Infrastructure Finance and Innovation Act (TIFIA) program to complete the Wacker Drive Reconstruction Project. Net proceeds of \$96.7 million will fund the Chicago Riverwalk along the main branch of the Chicago River (\$96.6 million) and fund capitalized interest (\$191 thousand). The interest rate is 3.33 percent and the final maturity of the loan is January 1, 2048. Total loan disbursements made to the City in 2017 were \$20.0 million. The final disbursement was made on December 1, 2017, and no further disbursements will be made. As of December 31, 2017, the final total outstanding loan amount is \$96.7 million. Principal repayment will begin on January 1, 2020 with a final maturity of January 1, 2048.

**v) Enterprise Fund Revenue Bonds and Notes**

In August 2013, the City entered into a loan agreement with the United States Department of Transportation under the Transportation Infrastructure Finance and Innovation Act (TIFIA) program to fund a portion of Consolidated Rental Car Facility at O'Hare, additions, extensions and improvements to the airport transit system (ATS) including the purchase of new ATS vehicles and certain public parking facilities. The loan amount of \$288.1 million is subordinate to the O'Hare Customer Facility Charge Senior Lien Revenue Bonds, Series 2013. The interest rate is 3.86 percent and the final maturity of the loan is January 1, 2054. Disbursements of \$156.8 million were made in 2017. As of December 31, 2017, the outstanding TIFIA loan amount is \$159.8 million that includes accrued interest of \$3.0 million.

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O'Hare issued \$102.2 million of Series 2016 Commercial Paper Notes in 2017. The proceeds were used to finance portions of the costs of authorized airport projects. As of December 31, 2017, there is \$102.2 million of outstanding commercial paper notes.

O'Hare Senior Lien Revenue Bonds, Series 2016 DEFG (\$1,117.2 million) were sold at a premium in January 2017. The bonds have interest rates ranging from 2.0 percent to 5.25 percent and maturity dates from January 1, 2018 to January 1, 2052. The net proceeds of \$1,196.1 million will be used to fund certain capital projects (\$1,012.8 million), to fund debt service reserves (\$49.6 million), and to fund capitalized interest (\$133.7 million).

O'Hare Senior Lien Revenue and Revenue Refunding Bonds, Series 2017 ABCD (\$812.5 million) were sold at a premium in June 2017. The bonds have interest rates ranging from 3.125 percent to 5.0 percent and maturity dates from January 1, 2018 to January 1, 2052. The net proceeds of \$924.3 million will be used to refund certain maturities of General Airport Revenue Bonds outstanding (\$600.9 million), fund certain capital projects (\$266.8 million), to fund debt service reserves (\$18.6 million), and to fund capitalized interest (\$38.0 million). The current and advance refunding of the bonds decreased the City's total debt service payment by \$64.2 million resulting in a net economic gain of approximately \$58.9 million and a book loss of approximately \$73.4 million. A portion of the bond proceeds were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments for certain outstanding bonds. Therefore, these bonds are considered to be defeased and the liability for those bonds has been removed from the government-wide statement of net position.

Second Lien Water Revenue Bonds, Refunding Series 2017 (\$199.4 million) were sold at a premium in June 2017. The bonds have interest rates ranging from 5.0 percent to 5.25 percent and maturity dates from November 1, 2017 to November 1, 2036. The net proceeds of \$230.2 million were used to refund certain maturities of Water Revenue bonds outstanding. The current and advance refunding of the bonds decreased the City's total debt service payments by \$42.8 million resulting in a net economic gain of approximately \$32.4 million and a book loss of approximately \$0.4 million. A portion of the bond proceeds were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments for certain outstanding bonds. Therefore, these bonds are considered to be defeased and the liability for those bonds has been removed from the government-wide statement of net position.

Second Lien Water Revenue Bonds, Refunding Series 2017-2 (\$235.3) million were sold at a premium in December 2017. The bonds have an interest rate of 5.0 percent and maturity dates from November 1, 2018 to November 1, 2038. The net proceeds of \$271.0 million were used to refund certain maturities of Water Revenue bonds outstanding. The advance refunding of the bonds decreased the total debt service payment by \$46.0 million, resulting in a net economic gain of approximately \$37.7 million and a book loss of approximately \$5.5 million. A portion of the bond proceeds were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments for certain outstanding bonds. Therefore, these bonds are considered to be defeased and the liability for those bonds has been removed from the government-wide statement of net position.

Second Lien Wastewater Transmission Revenue Project and Refunding Bonds, Series 2017 A&B (\$396.1 million) were sold at a premium in June 2017. The bonds have interest rates ranging from 4.0 percent to 5.25 percent and maturity dates from January 1, 2018 to January 1, 2052. The net proceeds of \$441.8 million will be used to fund certain capital projects (\$196.0 million) and to refund certain maturities of Wastewater Transmission Revenue bonds outstanding (\$242.5 million). The current and advance refunding of the bonds decreased the Sewer's total debt service payments by \$54.1 million, resulting in a net economic gain of approximately \$32.6 million and a book loss of approximately \$5.3 million. A portion of the bond proceeds were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments for certain outstanding bonds. Therefore, these bonds are considered to be defeased and the liability for those bonds has been removed from the government-wide statement of net position.

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A loan agreement was signed on October 8, 2014, with the Illinois Environmental Protection Agency to line approximately 20 miles of existing sewer line ranging in diameter from 8 inches to 72 inches located throughout the City. In 2017, the Sewer Fund drew \$56.2 million from this loan agreement. The loan has an interest rate of 1.99 percent with the maturity dates from June 9, 2017 to June 9, 2036.

A loan agreement was signed on January 22, 2016, with the Illinois Environmental Protection Agency to install approximately 4,900 lineal feet of reinforced concrete sewer main ranging from 36 to 72 inch diameter pipe on the 56th street corridor. In 2017, the Sewer Fund drew \$4.1 million from this loan agreement. The loan has an interest rate of 1.86 percent with the maturity dates from August 18, 2016 to August 18, 2036.

A loan agreement was signed on November 4, 2016, with the Illinois Environmental Protection Agency to install approximately 5,300 lineal feet of reinforced concrete sewer main ranging from 24 to 55 inch diameter pipe on Avenue "L" corridor. In 2017, the Sewer Fund drew \$4.3 million from this loan agreement. The loan has an interest rate of 1.75 percent with the maturity dates from May 3, 2018 to November 3, 2037.

A loan agreement was signed on May 27, 2014, with the Illinois Environmental Protection Agency for the replacement of the obsolete electrical switchgear and distribution equipment at the South Water Purification Plant and other installation building construction and minor architectural and electrical projects. In 2017, the Water Fund drew \$40.4 million from this loan agreement. The loan agreement has an interest rate of 1.99 percent with maturity dates from March 9, 2018 to September 9, 2037.

An amended loan agreement was signed on May 18, 2016, with the Illinois Environmental Protection Agency for the replacement of approximately 24 miles of damaged, undersized, leaking and antiquated water main located throughout the City with new 8 - inch water mains. The original loan agreement was signed on January 22, 2015. The amendment increased the original loan amount from \$47 million to \$59.5 million. In 2016, the Water Fund drew \$55.3 million from this loan agreement. In 2017, the Water Fund drew an additional \$6.5 million. The loan agreement has an interest rate of 2.21 percent with maturity dates from July 31, 2016 to January 31, 2036.

A loan agreement was signed on November 17, 2015, with the Illinois Environmental Protection Agency for the installation of water meters equipped with AMR (Automatic Meter Reading) at residences throughout the City. The Water Fund drew \$19.6 million from this loan agreement. The loan agreement has an interest rate of 1.86 percent with maturity dates from June 1, 2017 to June 1, 2036.

**vi) STSC Bonds and Notes**

The Sales Tax Securitization Corporation issued Sales Tax Securitization Refunding Series 2017ABC bonds were sold at a premium in December 2017. The bonds have interest rates ranging from 2.596% to 5.0% and maturity dates from January 1, 2020 to January 1, 2043. The net proceeds of \$785.2 million were used to advance refund all of the City's outstanding Sales Tax Revenue Bonds (\$614.9 million) and to refund all or a portion of certain outstanding General Obligation bonds (\$170.3 million). The current and advance refunding of the bonds decreased the City's total debt service payments by \$21.0 million, resulting in a net economic gain of approximately \$46.3 million and a book loss of approximately \$85.0 million. The bonds are secured by a pledge of the Sales Tax Revenues. A portion of the bond proceeds were deposited in an irrevocable trust with escrow agents to provide for all future debt service payments for certain outstanding bonds. Therefore, these bonds are considered to be defeased and the liability for those bonds has been removed from the government-wide statement of net position.

c) **Annual requirements** listed below for each year include amounts payable January 1 of the following year. Bonds maturing and interest payable January 1, 2018 have been excluded because funds for their payment have been provided for. Annual requirements to amortize debt outstanding as of December 31, 2017 are as follows (dollars in thousands):

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Year Ending December 31,	General Obligation		Tax Increment	
	Principal	Interest	Principal	Interest
2018 .....	\$ 194,097	\$ 455,975	\$ 5,710	\$ 1,233
2019 .....	276,480	477,066	6,020	960
2020 .....	355,650	535,759	4,135	706
2021 .....	352,334	518,433	4,375	494
2022 .....	358,800	507,029	7,685	192
2023-2027 .....	1,760,155	2,280,901	-	-
2028-2032 .....	2,192,734	1,799,986	-	-
2033-2037 .....	2,672,166	1,031,159	-	-
2038-2042 .....	1,261,836	271,411	-	-
2043-2047 .....	108,170	6,830	-	-
	<u>\$ 9,532,422</u>	<u>\$ 7,884,549</u>	<u>\$ 27,925</u>	<u>\$ 3,585</u>

Year Ending December 31,	Revenue		Securitization Corporation		Business-type Activities	
	Principal	Interest	Principal	Interest	Principal	Interest
2018 .....	\$ 4,515	\$ 10,864	\$ -	\$ 29,451	\$ 471,233	\$ 711,579
2019 .....	4,980	10,642	3,000	28,123	478,315	688,490
2020 .....	5,365	10,399	3,150	27,973	466,419	674,035
2021 .....	5,777	10,140	27,045	27,816	435,008	649,936
2022 .....	6,217	9,862	33,705	26,752	463,112	628,915
2023-2027 .....	38,737	44,427	189,305	112,983	2,712,014	2,787,575
2028-2032 .....	54,133	34,056	163,925	74,278	3,108,230	2,028,799
2033-2037 .....	77,532	19,697	147,630	47,819	3,137,530	1,216,587
2038-2042 .....	22,758	7,396	175,975	19,380	2,080,109	514,901
2043-2047 .....	29,915	2,934	-	-	721,938	180,854
2048-2052 .....	-	-	-	-	452,205	60,432
2053-2054 .....	-	-	-	-	23,651	924
	<u>\$ 249,929</u>	<u>\$ 160,417</u>	<u>\$ 743,735</u>	<u>\$ 394,575</u>	<u>\$ 14,549,764</u>	<u>\$ 10,143,027</u>

For the debt requirements calculated above, interest rates for fixed rate bonds debt range from 0.74 percent to 7.781 percent and interest on variable rate debt was calculated at the rate in effect or the effective rate of a related swap agreement, if applicable, as of December 31, 2017. Letters of credit were issued by third party financial institutions that are expected to be financially capable of honoring their agreements.

O'Hare and Midway have variable rate bonds that may bear interest from time to time at a flexible rate, a daily rate, a weekly rate, an adjustable long rate, or the fixed rate as determined by the remarketing agent, in consultation with the City. An irrevocable letter of credit provides for the timely payment of principal and interest on the O'Hare's and Midway's variable rate Bonds. In the event that variable rate bonds are tendered by the owners thereof for purchase by the City and not successfully remarketed, the City would be obligated to reimburse the letter of credit bank for amounts drawn under the letter of credit to fund the purchase of such tendered bonds. If the City fails to reimburse the bank, the City's obligation to reimburse the bank may be converted to a term loan. There are no term loans currently outstanding under any reimbursement agreement. As of December 31, 2017, the principal balance of variable rate bonds was \$240.6 million and \$252.3 million for O'Hare and Midway, respectively.

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**d) Derivatives**

**i) Interest Rate Swaps**

(1) *Objective of the swaps.* In order to protect against the potential of rising interest rates and/or changes in cash flows, the City has entered into various separate interest rate swaps at a cost less than what the City would have paid to issue fixed-rate debt. Midway has the following outstanding swaps (dollars in thousands):

	Changes in Fair Value		Fair Value at December 31, 2017		Notional Amount
	Classification	Amount	Classification	Amount	
<b>Business-type Activities</b>					
Hedges:					
Interest Rate Swaps ..	Deferred Outflow of Resources	\$ 1,715	Deferred Outflow of Resources	\$ (24,319)	\$ 127,625

(2) *Terms, fair values, and credit risk.* The objective and terms, including the fair values and credit ratings, of the City's hedging derivative instruments outstanding as of December 31, 2017, are as follows. The notional amounts of the swaps approximate the principal amounts of the associated debt. The City's swap agreements contain scheduled reductions to outstanding notional amounts that are expected to approximately follow scheduled or anticipated reductions in the associated "bonds payable" category. Under the swaps on a net basis for each related series of bonds, the City pays the counterparty a fixed payment and receives a variable payment computed according to the London Interbank Offered Rate (LIBOR) and/or The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index. The terms as of December 31, 2017, are as follows (dollars in thousands):

Associated Bond Issue	Notional Amounts	Effective Date	Terms	Fair Values	Termination Date	Counter-party Credit Rating
<b>Hedging Instruments</b>						
<b>Business-type Activities:</b>						
Chicago Midway International Airport Revenue Bonds (Series 2004C&D) ...	76,575 51,050	12/14/2004 4/21/2011	Pay 4.174%; receive SIFMA Plus .05% Pay 4.247%; receive SIFMA Plus .05%	\$ (14,256) (10,063)	1/1/2035 1/1/2035	A1/A+ Aa2/AA-
				Total .....		\$ (24,319)

See Table 31 in Statistical Section for Counterparty Entities and additional details for credit ratings. Type and objective for all the Swaps is the same, as mentioned earlier.

(3) *Fair Value.* As of December 31, 2017, the swaps had a negative fair value of \$24.3 million. As per industry convention, the fair values of the City's outstanding swaps were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the forward rates implied by the yield curve correctly anticipate future spot rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swap. Because interest rates are below the Fixed Rate Paid, the City's swaps had negative values.

Derivative instruments are valued in the market using regression analysis. Significant inputs to the derivative valuation for interest rate swaps are observable in active markets and are classified as Level 2 in the fair value hierarchy.

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(4) *Credit Risk.* The City is exposed to credit risk (counterparty risk) through the counterparties with which it enters into agreements. If minimum credit rating requirements are not maintained, the counterparty is required to post collateral to a third party. This protects the City by mitigating the credit risk, and therefore the ability to pay a termination payment, inherent in a swap. Collateral on all swaps is to be in the form of cash or Eligible Collateral held by a third-party custodian. Upon credit events, the swaps also allow transfers, credit support, and termination if the counterparty is unable to meet the said credit requirements.

(5) *Basis Risk.* Basis risk refers to the mismatch between the variable rate payments received on a swap contract and the interest payment actually owed on the bonds. The two significant components driving this risk are credit and SIFMA/LIBOR ratios. Credit may create basis risk because the City's bonds may trade differently than the swap index as a result of a credit change in the City. SIFMA/LIBOR ratios (or spreads) may create basis risk. With percentage of LIBOR swaps, if the City's bonds trade at a higher percentage of LIBOR over the index received on the swap, basis risk is created. This can occur due to many factors including, without limitation, changes in marginal tax rates, tax-exempt status of bonds, and supply and demand for variable rate bonds. The City is exposed to basis risk on all swaps except those that are based on Cost of Funds, which provide cash flows that mirror those of the underlying bonds. For all other swaps, if the rate paid on the bonds is higher than the rate received, the City is liable for the difference. The difference would need to be available on the debt service payment date and it would add additional underlying cost to the transaction.

(6) *Tax Risk.* The swap exposes the City to tax risk or a permanent mismatch (shortfall) between the floating rate received on the swap and the variable rate paid on the underlying variable-rate bonds due to tax law changes such that the federal or state tax exemption of municipal debt is eliminated or its value reduced. There have been no tax law changes since the execution of the City's swap transactions.

(7) *Termination Risk.* The risk that the swap could be terminated as a result of certain events including a ratings downgrade for the issuer or swap counterparty, covenant violation, bankruptcy, payment default or other defined events of default. Termination of a swap may result in a payment made by the issuer or to the issuer depending upon the market at the time of termination.

(8) *Rollover Risk.* The risk that the City may be exposed to rising variable interest rates if (i) the swap expires or terminates prior to the maturity of the bonds and (ii) the City is unable to renew or replace the swap.

(9) *Swap payments and associated debt.* As of December 31, 2017, debt service requirements of the City's outstanding variable-rate debt and net swap payments, assuming current interest rates remain the same, for their term are as follows (dollars in thousands):

Year Ending December 31,	Variable-Rate Bonds		Interest			
	Principal	Interest	Rate	Swaps, Net	Total	
2018 .....	\$ 4,775	\$ 2,140	\$ 3,041	\$ 9,956		
2019 .....	5,000	2,053	2,918		9,971	
2020 .....	5,225	1,963	2,789		9,977	
2021 .....	5,350	1,870	2,658		9,878	
2022 .....	5,675	1,772	2,518		9,965	
2023 - 2027 .....	32,400	7,227	10,270		49,897	
2028 - 2032 .....	40,375	4,024	5,719		50,118	
2033 - 2035 .....	28,825	557	792		30,174	
	<u>\$ 127,625</u>	<u>\$ 21,606</u>	<u>\$ 30,705</u>		<u>\$ 179,936</u>	

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**e) Debt Covenants**

- i) Water Fund** - The ordinances authorizing the issuance of outstanding Water Revenue Bonds require that net revenues available for bonds, as adjusted shall each fiscal year at least equal the greater of (i) 120% of the aggregate debt service requirement for the fiscal year on all the outstanding senior lien bonds, or (ii) the sum of (A) aggregate debt service requirements for the fiscal year on the outstanding senior lien bonds, plus (B) 110 percent of the aggregate debt service requirements for the fiscal year on the outstanding second lien bonds, plus (C) aggregate outstanding debt service requirements for the fiscal year on the outstanding IEPA loans, plus (D) annual debt service requirement for the fiscal year on aggregate outstanding water commercial paper notes, plus (E) annual debt service requirement on any outstanding water line of credit. This requirement was met at December 31, 2017.
- ii) Sewer Fund** - The ordinances authorizing the issuance of outstanding Wastewater Transmission Revenue Bonds provide for the creation of separate accounts into which monies will be deposited, as appropriate. The ordinances require that net revenues available for bonds, as adjusted shall each fiscal year at least equal (A) 115 percent of the aggregate debt service requirement for the fiscal year on the outstanding senior lien bonds, plus (B) the sum of the aggregate annual debt service requirements for the fiscal year on the outstanding second lien bonds, plus (C) 115 percent of the aggregate outstanding debt service requirements for the fiscal year on the outstanding IEPA loans, plus (D) annual debt service requirement for the fiscal year on aggregate outstanding debt service on any outstanding wastewater line of credit and commercial paper notes. This requirement was met at December 31, 2017.
- iii) Chicago Midway International Airport Fund** - The Master Indenture of Trust securing Chicago Midway Airport Revenue Bonds requires in each year that the City fix and establish and revise from time to time whenever necessary, such rates and other charges for the use and operation of Midway and for services rendered by the City in the operation of Midway in order that, in each Fiscal year, Revenues, together with any Other Available Monies deposited with the Trustee with respect to such Fiscal Year and any cash balance held in the Revenue Fund on the first day of such Fiscal Year not then required to be deposited in any Fund or Account, will be at least sufficient (a) to provide for the Operation and Maintenance Expenses for the Fiscal Year and (b) to provide for the greater of (i) the amounts needed to make the Deposits required during such Fiscal Year into the Debt Service Funds, the Operations & Maintenance Reserve Account, the Working Capital Account, the Debt Service Reserve Fund, the Junior Lien Obligation Debt Service Fund, the Repair and Replacement Fund, and the Special Project Fund and (ii) an amount not less than 125 percent of the Aggregate Debt Service for the Bond Year commencing during such Fiscal Year reduced by an amount equal to the sum of any amount held in any Capitalized Interest Account for disbursement during such Fiscal Year to pay interest on First Lien Bonds. These requirements were met at December 31, 2017.

The Master Indenture of Trust Securing Chicago Midway Airport Second Lien Obligations requires that the City fix and establish and revise from time to time whenever necessary, such rentals, rates and other charges for the use and operation of Midway and for certain services rendered by the City in the operation of Midway in order that in each Fiscal Year, Revenues, together with Other Available Moneys deposited with the First Lien Trustee or the Second Lien Trustee with respect to such Fiscal Year and any cash balance held in the First Lien Revenue Fund or the Second Lien Revenue Fund on the first day of such Fiscal Year not then required to be deposited in any Fund or Account under the First Lien Indenture for the Second Lien Indenture, will be at least sufficient (1) to provide for the payment of Operation and Maintenance Expenses for the Fiscal Year and (2) to provide for the greater of (A) or (B) as follows: (A) the greater of the amounts needed to make the deposits required under the First Lien Indenture described in the immediately preceding paragraph above; or (B) the greater of the amounts needed to make the deposits required under the First Lien Indenture described in the immediately preceding paragraph above or an amount not less than 110 percent of the Aggregate First Lien Debt Service and Aggregate Second Lien Debt Service for the Bond Year commencing during such Fiscal Year, reduced by (X) any amount held in any Capitalized Interest Account for disbursement during such Bond Year to pay interest on First Lien Bonds, and (Y) any amount held in any capitalized interest account established pursuant to a Supplemental Indenture under the Second Lien Indenture for disbursement during such

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Bond Year to pay interest on Second Lien Obligations. These requirements were met at December 31, 2017.

iv) **Chicago-O'Hare International Airport Fund** - The Master Indenture of Trust securing Chicago O'Hare International Airport General Airport Senior Lien Obligations requires that the City will fix and establish, and revise from time to time whenever necessary, the rentals, rates and other charges for the use and operation of O'Hare and for services rendered by the City in the operation of O'Hare in order that Revenues in each Fiscal Year, together with Other Available Moneys deposited with the Trustee with respect to that Fiscal Year and any cash balance held in the Revenue Fund on the first day of that Fiscal Year not then required to be deposited in any Fund or Account, will be at least sufficient: (i) to provide for the payment of Operation and Maintenance Expenses for the Fiscal Year; and (ii) to provide for the greater of (a) the sum of the amounts needed to make the deposits required to be made pursuant to all resolutions, ordinances, indentures and trust agreements pursuant to which all outstanding Senior Lien Obligations or other outstanding Airport Obligations are issued and secured, and (b) one and ten-hundredths times Aggregate Debt Service for the Bond Year commencing during that Fiscal Year, reduced by any proceeds of Airport Obligations held by the Trustee for disbursement during that Bond Year to pay principal of and interest on Senior Lien Obligations. This requirement was met at December 31, 2017.

The Master Trust Indenture securing Chicago O'Hare International Airport Passenger Facility Charge (PFC) Obligations requires PFC Revenues, as defined, received by the City to be deposited into the PFC Revenue Fund. The City covenants to pay from the PFC Revenue Fund not later than the twentieth day of each calendar month the following amounts in the following order of priority: (1) to the Trustee for deposit in the Bond Fund, the sum required to make all of the Sub-Fund Deposits and Other Required Deposits to be disbursed from the Bond Fund [to meet debt service and debt service reserve requirements] in the calendar month pursuant to the Master Indenture; (2) to make any payments required for the calendar month with respect to Subordinated PFC Obligations; and (3) all moneys and securities remaining in the PFC Revenue Fund shall be transferred by the City (or the Trustee if it then holds the PFC Revenue Fund pursuant to the Master Indenture) to the PFC Capital Fund.

The Indenture of Trust Securing Chicago O'Hare International Airport Customer Facility Charge Senior Lien Revenue Bonds requires that, as long as any Bonds remain Outstanding, in each Fiscal Year, the City shall set the amount of the CFC (when multiplied by the total number of projected Contract Days) plus projected Facility Rent at an annual level sufficient to provide sufficient funds (1) to pay principal of and interest on the Bonds due in such Fiscal Year, (2) to reimburse the Rolling Coverage Fund, the Supplemental Reserve Fund, the Debt Service Reserve Fund and any Subordinate Reserve Fund for any drawings upon such Funds over a period not to exceed twelve months, as determined by the City, (3) to provide funds necessary to pay any "yield reduction payments" or rebate amounts due to the United States under the Indenture for which funds in the Rebate Fund or the CFC Stabilization Fund are not otherwise available, (4) to maintain the balance of the CFC Stabilization Fund in an amount of no less than the CFC Stabilization Fund Minimum Requirement and to reimburse any drawings below the CFC Stabilization Fund Minimum Requirement over a period not to exceed twelve months, as determined by the City, and (5) to maintain the balance of the Operation and Maintenance Fund in an amount of no less than the Operation and Maintenance Fund Requirement and to reimburse any drawings below the Operation and Maintenance Fund Minimum Requirement over a period of not to exceed twelve months, as determined by the City.

f) **No-Commitment Debt and Public Interest Loans** include various special assessment, private activity bonds and loans. These types of financings are used to provide private entities with low-cost capital financing for construction and rehabilitation of facilities deemed to be in the public interest. Bonds payable on no-commitment debt are not included in the accompanying financial statements because the City has no obligation to provide for their repayment, which is the responsibility of the borrowing entities. In addition, federal programs/grants, including Community Development Block Grants and Community Service Block Grants, provide original funding for public interest loans. Loans receivable are not included as assets because payments received on loans are used to fund new loans or other program activities in the current

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year and are not available for general City operating purposes. Loans provided to third parties are recorded as current and prior year programs/grants expenditures. Funding for future loans will be from a combination of the repayment of existing loans and additional funds committed from future programs/grants expenditures.

g) **Defeased Bonds** have been removed from the Statement of Net Position because related assets have been placed in irrevocable trusts that, together with interest earned thereon, will provide amounts sufficient for payment of all principal and interest. Defeased bonds at December 31, 2017, not including principal payments due January 1, 2018, are as follows (dollars in thousands):

	<b>Amount</b>	
	<b>Defeased</b>	<b>Outstanding</b>
General Obligation Emergency Telephone System - Series 1993 .....	\$ 213,730	\$ 69,930
General Obligation Bonds - Series 2001A .....	47,505	9,185
General Obligation Project and Refunding Bonds - Series 2002A .....	2,305	2,305
General Obligation Project and Refunding Bonds - Series 2003A .....	13,580	13,580
General Obligation Project Bonds - Series 2003C .....	5,110	5,110
General Obligation Project Bonds - Series 2004A .....	23,435	23,435
General Obligation Project and Refunding Bonds - Series 2005A .....	43,545	2,555
General Obligation Project and Refunding Bonds - Series 2005B .....	49,465	5,335
General Obligation Project and Refunding Bonds - Series 2006A .....	84,560	43,420
General Obligation Project and Refunding Bonds - Series 2007A .....	54,460	10,090
General Obligation Project and Refunding Bonds - Series 2007C .....	42,175	24,650
General Obligation Project and Refunding Bonds - Series 2008A .....	46,105	24,895
General Obligation Neighborhoods Alive 21 Program - Series 2003 .....	1,400	1,400
Lakefront Millennium Project Parking Facilities Bonds - Series 1998 .....	149,880	43,880
Sales Tax Revenue Bonds - Series 2002 .....	110,580	109,975
Sales Tax Revenue Bonds - Series 2005 .....	68,055	68,055
Sales Tax Revenue Bonds - Series 2009A .....	68,730	67,640
Sales Tax Revenue Bonds - Series 2009B .....	2,150	2,150
Sales Tax Revenue Refunding Bonds - Series 2009C .....	20,012	20,012
Sales Tax Revenue Refunding Bonds - Series 2011A .....	214,340	214,340
Sales Tax Revenue Refunding Bonds - Series 2011B .....	18,565	18,565
Water Revenue Second Lien Bonds - Series 2008A .....	312,735	312,735
Wastewater Transmission Second Lien Revenue Bonds - Series 2008A .....	131,055	131,055
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2008A ....	530,170	530,170
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2008C ....	36,255	36,255
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2010A ....	13,645	13,645
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2011A ....	348,075	348,075
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2011B ....	121,905	121,905
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2011C ....	283,925	283,925
Special Transportation Revenue Bonds - Series 2001 .....	118,715	78,575
<b>Total .....</b>	<b>\$ 3,176,167</b>	<b>\$ 2,636,847</b>

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**10) Pension Funds and Other Postemployment Benefits**

**a) Pension**

***General Information about the Pension Plan***

**Plan Description** – Eligible City employees participate in one of four single-employer defined benefit pension plans (Plans). These Plans are: the Municipal Employees' Annuity and Benefit Fund of Chicago (Municipal Employees'); the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Laborers'); the Policemen's Annuity and Benefit Fund of Chicago (Policemen's); and the Firemen's Annuity and Benefit Fund of Chicago (Firemen's). The plans are administered by individual retirement boards of trustees comprised of City officials or their designees and of trustees elected by Plan members. Certain employees of the Chicago Board of Education participate in Municipal Employees' or Laborers'. Each Plan issues a publicly available financial report that includes financial statements and required supplementary information that can be obtained at [www.meabf.org](http://www.meabf.org), [www.labfchicago.org](http://www.labfchicago.org), [www.chipabf.org](http://www.chipabf.org), and [www.fabf.org](http://www.fabf.org).

**Benefits provided** - The Plans provide retirement, disability, and death benefits as established by State law. Benefits generally vest after 10 years of credited service. Employees qualify for an unreduced retirement age minimum formula annuity based on a combination of years of service and age of retirement. Employees may also receive a reduced retirement age minimum formula annuity if they do not meet the age and service requirements for the unreduced retirement age annuity. The requirements of age and service are different for employees depending on when they first became members of their respective Plans. For all four Plans, employees who became members before January 1, 2011 are considered Tier 1 Employees. For Policemen's and Firemen's, those employees who became members on or after January 1, 2011 are considered Tier 2 Employees. For Municipal Employees' and Laborers', those employees who became members on or after January 1, 2011 but before July 6, 2017 are considered Tier 2 Employees. For Municipal Employees' and Laborers', those employees who became members on or after July 6, 2017 are considered Tier 3 Employees. Public Act 100-0023 (P.A. 100-0023), which established the requirements for Tier 3 employees, includes a provision for Tier 2 employees to elect to be considered as Tier 3 employees. The annuity is computed by multiplying the final average salary by a percentage ranging from 2.2 percent to 2.5 percent per year of credited service. The final average salary is the employee's highest average annual salary for any four consecutive years within the last 10 years of credited service for participants who are Tier 1 Employees and any eight consecutive years within the last 10 years of credited service for participants who are Tier 2 Employees or Tier 3 Employees.

Benefit terms provide for annual adjustments to each employee's retirement allowance subsequent to the employees' retirement date. For Tier 1 Employees, the annual adjustments for Municipal Employees' and Laborers' are 3.0 percent, compounded, and for Policemen's and the majority of participants in Firemen's 3.0 percent, simple, for annuitants born before January 1, 1966 and 1.5 percent, simple, born after January 1, 1966 or later. For Tier 2 Employees and Tier 3 Employees, the annual adjustments are equal to the lesser of 3.0 percent and 50 percent of CPI-U of the original benefit.

**Employees covered by benefit terms** - At December 31, 2017, the following employees were covered by the benefit terms:

	<u>Municipal Employees'</u>	<u>Laborers'</u>	<u>Policemen's</u>	<u>Firemen's</u>	<u>Total</u>
Inactive employees or beneficiaries					
currently receiving benefits .....	25,383	3,703	13,628	4,878	47,592
Inactive employees entitled					
to but not yet receiving benefits .....	17,549	1,469	640	77	19,735
Active employees .....	30,922	2,794	12,633	4,613	50,962
	<u>73,854</u>	<u>7,966</u>	<u>26,901</u>	<u>9,568</u>	<u>118,289</u>

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**Contributions** – Historically State law required City contributions at statutorily, not actuarially, determined rates. State law also requires covered employees to contribute a percentage of their salaries. The City's contribution for payment year 2017 for Municipal Employees' and Laborers' was calculated based on the total amount of contributions by employees to the respective Plans made in the calendar year two years prior, multiplied by 1.25 for Municipal Employees', and 1.00 for Laborers'.

For the Municipal Employees' and Laborers' Plans, Public Act 100-0023 (P.A. 100-0023) was enacted on July 6, 2017. P.A. 100-0023 requires the City to contribute specific amounts to the Municipal Employees' and the Laborers' Plans in the aggregate amounts as follows: in payment year 2018, \$302.0 million; in payment year 2019, \$392.0 million; in payment year 2020, \$481.0 million; in payment year 2021, \$571.0 million; and in payment year 2022, \$660.0 million. Additionally, P.A. 100-0023 requires that the City's contributions are at actuarially determined rates beginning in payment year 2023 and future funding be sufficient to produce a funding level of 90 % by the end of 2058.

For Policemen's and Firemen's, Public Act 99-0506 (P.A. 99-0506) was enacted on May 31, 2016. P.A. 99-0506 requires the City to contribute specific amounts to the Policemen's and Firemen's Plans in the aggregate amounts as follows: in payment year 2017, \$672 million; in payment year 2018, \$727 million; in payment year 2019, \$792 million; and in payment year 2020, \$824 million. Additionally, P.A. 99-0506 requires that the City's contributions are at actuarially determined rates beginning in payment year 2021 and future funding be sufficient to produce a funding level of 90 % by the end of 2055.

The City's contributions are budgeted in the same year as the applicable levy year for the property taxes funding the contributions. The City's contributions are then paid to the pension funds in the following year which is when the levied property taxes are collected and paid to the City by the Cook County Treasurer.

***Net Pension Liability***

The City's net pension liability was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The actuarial reports were provided by each of the pension funds.

***Actuarial assumptions.*** The total pension liability in the December 31, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	<b>Municipal Employees'</b>	<b>Laborers'</b>	<b>Policemen's</b>	<b>Firemen's</b>
Inflation .....	2.5%	2.25%	2.75%	2.5%
Salary Increases .....	3.5% - 7.75% (a)	3.00% (b)	3.75% (c)	3.75% (d)
Investment Rate of Return .....	7.0% (e)	7.25% (f)	7.25%	7.5%

- (a) (1.50%-6.50% for 2018-2022), varying by years of service
- (b) Plus a service - based increase in the first 9 years
- (c) Plus additional percentage related to service
- (d) Plus additional service based increases
- (e) Net of investment expense
- (f) Net of investment expense, including inflation

Post-retirement mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table (Blue Collar mortality table for Laborers' and Firemen's) for males or females, as appropriate. Pre-retirement mortality rates were based on the RP-2014 Employee Mortality Table (Blue Collar mortality table for Laborers' and Firemen's). Disabled mortality rates were based on the RP-2014 Healthy Annuitant mortality table for Policemen's and Blue Collar mortality table for Firemen's.

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The mortality actuarial assumptions used in the December 31, 2017 valuation were adjusted based on the results of actuarial experience study for the period as noted below:

Municipal Employees' - January 1, 2012 - December 31, 2016

Laborers' - January 1, 2012 - December 31, 2016

Policemen's - January 1, 2009 - December 31, 2013

Firemen's - January 1, 2012 - December 31, 2016

The long-term expected rate of return on pension plan investments was determined using the 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. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class:	Target Allocation				Long-Term Expected Real Rate of Return			
	Municipal Employees'	Laborers'	Policemen's	Firemen's	Municipal Employees'	Laborers'	Policemen's	Firemen's
Equity .....	-	-	-	60.0%	-	-	-	7.25%
Domestic equity .....	26.0%	-	-	-	5.60%	-	-	-
U.S. equity .....	-	25.0%	21.0%	-	-	5.80%	6.10%	-
Non U.S. equity .....	-	20.0%	21.0%	-	-	5.70%	7.70%	-
Global low volatility equity ..	-	5.0%	-	-	-	5.00%	-	-
International equity .....	22.0%	-	-	-	5.70%	-	-	-
Fixed income .....	27.0%	20.0%	22.0%	20.0%	1.00%	(0.20%)	1.90%	7.34%
Hedge funds .....	10.0%	10.0%	5.0%	-	3.60%	3.60%	4.00%	-
Private debt .....	-	3.0%	-	-	-	8.20%	-	-
Private equity .....	5.0%	4.0%	-	-	9.40%	9.40	-	-
Private markets .....	-	-	17.0%	-	-	-	7.40%	-
GAA .....	-	-	5.0%	-	-	-	4.40%	-
Real estate .....	10.0%	10.0%	5.0%	8.0%	5.40%	5.40%	4.60%	7.62%
Real assets .....	-	-	4.0%	-	-	-	4.80%	-
Private Real assets .....	-	3.0%	-	-	-	5.80%	-	-
Other investments .....	-	-	-	12.0%	-	-	-	7.70%
Total .....	100.0%	100.0%	100.0%	100.0%				

*Discount rate*

Municipal Employees' - The discount rate used to measure the total pension liability as of December 31, 2017 was 7.0 percent, which is an increase from the discount rate of 3.91 percent used to measure the total pension liability as of December 31, 2016. The increase in the discount rate was mainly a result of the increased projected contributions as specified by Public Act 100-0023. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.0 percent. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made according to the contribution rate applicable for each member's tier and that employer contributions will be made as specified by Public Act 100-0023. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service cost of future plan members and their beneficiaries are not included. 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 of projected benefit payments to determine total pension liability. The valuation as of December 31, 2016, projected that the pension plan's fiduciary net position would be available to make payments through 2023. As a result of the increase in

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projected contributions, the pension plan's fiduciary net position is now projected to be available to make all projected future benefit payments of current plan members.

**Laborers'** - A Single Discount Rate of 7.07 percent was used to measure the total pension liability as of December 31, 2017, which is an increase from the discount rate of 4.17 percent used to measure the total pension liability as of December 31, 2016. The increase in the discount rate was mainly a result of the increased projected contributions as specified by Public Act 100-0023. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25 percent and a municipal bond rate of 3.31 percent (based on the weekly rate closest to but not later than the measurement date of the "state and local bonds" rate from Federal Reserve statistical release (H.15)). The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made under the statutory funding policy. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2071. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2071, and the municipal bond rate was applied to all benefit payments after that date. The valuation as of December 31, 2016, projected that the pension plan's fiduciary net position would be available to make payments through 2027. As a result of the increase in projected contributions, the pension plan's fiduciary net position is now projected to be available to make all projected future benefit payments of current plan members through 2071.

**Policemen's** - A Single Discount Rate of 7.0 percent was used to measure the total pension liability. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25 percent (based on the weekly rate closest to but not later than the measurement date of the "state and local bonds" rate from Federal Reserve statistical release (H.15)). The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions and employer contributions are made in accordance with the statutory requirements. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance benefit payments through the year 2070. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2070, and the municipal bond rate was applied to all benefit payments after that date.

**Firemen's** - A Single Discount Rate of 7.23 percent was used to measure the total pension liability. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.5 percent and a municipal bond rate of 3.31 percent (based on the weekly rate closest to but not later than the measurement date of the "state and local bonds" rate from Federal Reserve statistical release (H.15)). 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 that employer contributions will be made at rates equal to the difference between the statutory contribution rates and the member rate. Based on these assumptions, the Plan's fiduciary net position and future contributions were sufficient to finance future benefit payments only through the year 2070. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2070, and the municipal bond rate was applied to all benefit payments after that date.

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*Changes in the Net Pension Liability (dollars in thousands):*

	Municipal Employees'	Laborers'	Policemen's	Firemen's	Total
<b>Total pension liability</b>					
Service cost .....	\$ 572,534	\$ 80,232 *	\$ 237,333 *	\$ 93,367 *	\$ 983,466
Interest .....	915,711	154,047	917,720	371,622	2,359,100
Benefit changes .....	-	150	-	-	150
Differences between expected and actual experience .....	(177,755)	(62,178)	(299,923)	26,954	(512,902)
Assumption changes .....	(7,431,191)	(1,074,754)	238,975	414,219	(7,852,751)
Benefit payments including refunds .....	(888,174)	(157,050)	(747,891)	(306,098)	(2,099,213)
Pension plan administrative expense .....	-	(3,985)	(4,843)	(3,172)	(12,000)
Net change in total pension liability .....	(7,008,875)	(1,063,538)	341,371	596,892	(7,134,150)
<b>Total pension liability:</b>					
Total pension liability - Beginning .....	23,291,271	3,693,645	13,113,091	5,149,258	45,247,265
Total pension liability - Ending (a) .....	<u>\$ 16,282,396</u>	<u>\$ 2,630,107</u>	<u>\$ 13,454,462</u>	<u>\$ 5,746,150</u>	<u>\$ 38,113,115</u>
<b>Plan fiduciary net position</b>					
Contributions-employer .....	\$ 261,764	\$ 35,457	\$ 494,483	\$ 228,453	\$ 1,020,157
Contributions-employee .....	134,765	17,411	103,011	47,364	302,551
Net investment income (loss) .....	610,515	207,981	412,190	140,570	1,371,256
Benefit payments including refunds of employee contribution .....	(888,174)	(157,050)	(747,891)	(306,098)	(2,099,213)
Administrative expenses .....	(6,473)	(3,985)	(4,843)	(3,172)	(18,473)
Other .....	5,394	-	97	22	5,513
Net change in plan fiduciary net position ..	117,791	99,814	257,047	107,139	581,791
Plan fiduciary net position - beginning .....	4,436,227	1,167,740	2,865,019	1,019,014	9,488,000
Plan fiduciary net position - ending (b) .....	<u>\$ 4,554,018</u>	<u>\$ 1,267,554</u>	<u>\$ 3,122,066</u>	<u>\$ 1,126,153</u>	<u>\$ 10,069,791</u>
Net pension liability-ending (a)-(b) .....	<u><u>\$ 11,728,378</u></u>	<u><u>\$ 1,362,553</u></u>	<u><u>\$ 10,332,396</u></u>	<u><u>\$ 4,619,997</u></u>	<u><u>\$ 28,043,324</u></u>

\* Includes pension plan administrative expense

**Changes in Actuarial Assumptions:** Changes under P.A. 100-0023 resulted in an increase in future required contributions to the Municipal Employees' and Laborers' pension plans resulting in an increase in the discount rate for the Municipal Employees' and Laborers' Pension Plans as discussed in the discount rate section above.

The change in the discount rate and other assumptions decreased the net pension liability by \$7.4 billion for Municipal Employees' and \$1.1 billion for Laborers'. This change is being amortized into expense over a 5 year period for Municipal Employees' and 4 year period for Laborers'.

*Sensitivity of the net pension liability to changes in the discount rate*

**Municipal Employees'** - The following presents the net pension liability as of December 31, 2017, calculated using the discount rate of 7.00 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.00 percent) or 1 percentage point higher (8.00 percent) than the current rate (dollars in thousands):

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		Current	
	1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2017			
Municipal Employees' discount rate .....	6.00%	7.00%	8.00%
Municipal Employees' net pension liability ...	\$ 13,807,800	\$ 11,728,378	\$ 10,006,090

**Laborers'** - The following presents the net pension liability as of December 31, 2017, calculated using the discount rate of 7.07 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.07 percent) or 1 percentage point higher (8.07 percent) than the current rate (dollars in thousands):

		Current	
	1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2017			
Laborers' discount rate .....	6.07%	7.07%	8.07%
Laborers' Employees' net pension liability ...	\$ 1,680,428	\$ 1,362,553	\$ 1,096,678

**Policemen's** - The following presents the net pension liability as of December 31, 2017, calculated using the discount rate of 7.00 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.00 percent) or 1 percentage point higher (8.00 percent) than the current rate (dollars in thousands):

		Current	
	1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2017			
Policemen's Employees' discount rate .....	6.00%	7.00%	8.00%
Policemen's Employees' net pension liability ...	\$ 11,944,827	\$ 10,332,396	\$ 8,978,202

**Firemen's** - The following presents the net pension liability as of December 31, 2017, calculated using the discount rate of 7.23 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.23 percent) or 1 percentage point higher (8.23 percent) than the current rate (dollars in thousands):

		Current	
	1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2017			
Firemen's Employees' discount rate .....	6.23%	7.23%	8.23%
Firemen's Employees' net pension liability ....	\$ 5,303,879	\$ 4,619,997	\$ 4,046,477

*Pension plan fiduciary net position*

Detailed information about the pension plan's fiduciary net position is available in the separately issued Pension Plans reports.

*Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions*

For the year ended December 31, 2017, the City recognized pension expense of \$2.5 billion. At December 31, 2017, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (dollars in thousands):

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	Municipal Employees'		Laborers'		Policemen's		Firemen's	
	Deferred	Deferred	Deferred	Deferred	Deferred	Deferred	Deferred	Deferred
	Outflows of Resources	Inflows of Resources						
Differences between expected and actual experience .....	\$ -	\$ 262,410	\$ -	\$ 63,241	\$ 1,180	\$ 300,297	\$ 38,351	\$ 3,983
Changes of assumptions .....	3,484,702	6,292,305	151,720	793,688	272,073	-	433,139	49,019
Net difference between projected and actual earnings on pension plan investments ..	-	109,820	66,791	99,507	138,623	168,002	38,717	52,300
Total .....	<u>\$ 3,484,702</u>	<u>\$ 6,664,535</u>	<u>\$ 218,511</u>	<u>\$ 956,436</u>	<u>\$ 411,876</u>	<u>\$ 468,299</u>	<u>\$ 510,207</u>	<u>\$ 105,302</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense/(benefit) as follows (dollars in thousands):

Year ended December 31:	Municipal			
	Employees'	Laborers'	Policemen's	Firemen's
2018 .....	\$ 57,074	\$ (201,159)	\$ 11,046	\$ 97,948
2019 .....	57,074	(332,885)	11,046	97,948
2020 .....	(1,712,937)	(179,004)	(32,801)	82,590
2021 .....	(1,581,044)	(24,877)	(36,612)	53,063
2022 .....	-	-	(9,102)	73,356
Total .....	<u>\$ (3,179,833)</u>	<u>\$ (737,925)</u>	<u>\$ (56,423)</u>	<u>\$ 404,905</u>

*Deferred outflows and deferred inflows related to changes in proportionate share of contributions*

For the year ended December 31, 2017, the City reported a pension benefit of \$48.4 million, deferred inflows of \$204.2 million and deferred outflows of \$5.5 million related to changes in its proportionate share of contributions. This deferred amount will be recognized as pension expense/(benefit) over a period of four years.

*Payable to the Pension Plans*

At December 31, 2017, the City reported a payable of \$690.3 million for the outstanding amount of contributions to the Pension Plans required for the year ended December 31, 2017.

**b) Other Post Employment Benefits (OPEB) - Pension Funds**

Applicable state law authorized the four respective Pension Funds (Policemen's, Firemen's, Municipal Employees', and Laborers') to provide a fixed monthly dollar subsidy to each annuitant who had elected coverage under any City health plan through December 31, 2016. After that date, no Pension Fund subsidies were authorized by state law.

*Underwood* litigation - In 2017, the Illinois Appellate Court held that current and future annuitants hired prior to the execution of a court approved settlement agreement in 2003 in the *City of Chicago v. Korshak* (those who retired prior to August 23, 1989 and their dependents, *Korshak* group) litigation, and subject to certain eligibility requirements, are entitled to receive lifetime fixed rate monthly subsidies equal to the subsidy amounts provided in the 1983 and 1985 amendments to the Pension Code. Those subsidies are, for Policemen's and Firemen's, \$21 per month or \$55 per month, depending on the annuitant's Medicare eligibility, and for Municipal Employees' and Laborers', \$25 per month for those annuitants who are 65 or older with at least 15 years of service. The issue of whether the Pension Funds or the City is obligated to make the subsidy payments to the annuitants is still subject to litigation. The 1983 and 1985 statutes state that the Pension Funds are obligated to make the payments but none of the Pension Funds included the liability for

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the monthly subsidies in their respective actuarial valuation reports under GASB 43. For that reason, the City has included the liability for the monthly fixed subsidies for this limited group under GASB 45 and is reported together with the Retirees' Settlement Health Plan liability.

**c) Other Post Employment Benefits - City Obligation**

**Retirees' Settlement Health Plan** - As of January 1, 2014, the City of Chicago agreed to provide a healthcare plan with a subsidy of 55% of the cost of that plan to those City annuitants who retired prior to August 23, 1989, for their lifetimes. The cost of health benefits is recognized as an expenditure in the accompanying financial statements as claims are reported and are funded on a pay-as-you-go basis. The net expense to the City in 2017 for providing these benefits was \$22.7 million. Of that amount, \$14.8 million was attributed to runoff claims for the retirees who no longer received subsidized healthcare from the City after December 31, 2016, and \$7.9 million was attributed to the class of retirees and their dependents (those who retired prior to August 23, 1989), who will continue to receive lifetime subsidized healthcare from the City. The average number of annuitants in this latter group is 2,978 and a total of 3,378 covered lives including dependents. Duty Disabled retirees who have statutory pre-63/65 coverage will continue to have fully subsidized coverage under the active health plan until age 65.

**Special Benefits under the Collective Bargaining Agreements (CBA)** - Under the terms of the latest collective bargaining agreements for the Fraternal Order of Police and the International Association of Fire Fighters, certain employees who retire after attaining age 55 with the required years of service are permitted to enroll themselves and their dependents in the healthcare benefit program offered to actively employed members. They may keep this coverage until they reach the age of Medicare eligibility. CBA special early retirement benefits cease at Medicare eligibility age.

An extension of the CBA was negotiated (and finalized in 2014) governing the contract period (thru June 30, 2016 for Police Captains, Sergeants and Lieutenants and June 30, 2017 for remaining Police and Fire). As of the date of this report, negotiations are ongoing regarding new agreements which cover the retiree health benefits. Under the "maintenance of effort" protocols, the provisions of the prior agreement are honored until a new agreement is signed. It is not known whether the CBA special health benefits will be specifically eliminated, modified, or extended at this time. Therefore the actuarial valuation assumes the expiration of the early retirement special benefits as of the December of the contract expiration year, but includes the liabilities for continuation of payments to those members who would have already retired under the CBA as of December 31 of that year. Based upon prior history, the negotiations are assumed to be concluded by December 31, 2019. CBA retirees were required to contribute 2% of their pension for health care coverage beginning at the end of 2017.

**Funding Policy** - No assets are accumulated or dedicated to funding the retiree health plan benefits.

**Annual OPEB Cost and Net OPEB Obligation** - The City's annual other post-employment benefit (OPEB) cost (expense) is calculated based on the annual required contribution "ARC" of the employer. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and to amortize any unfunded actuarial liabilities over a period of ten years.

The following table shows the components of the City's annual OPEB costs for the year for the Health Plan and CBA Special Benefits, the amount actually contributed to the plan, and changes in the City's net OPEB obligation. The *Net OPEB Obligation* is the amount entered upon the City's Statement of Net Position as of year end as the net liability for the other post-employment benefits – the Health Plan. The amount of the annual cost that is recorded in the Statement of Changes in Net Position for 2017 is the annual OPEB cost (expense).

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**Annual OPEB Cost and Contributions Made**  
(dollars in thousands)

	Retiree Settlement Health Plan	CBA Special Benefits	Total
<b>Contribution Rates:</b>			
City .....	Pay-As-You-Go	Pay-As-You-Go	Pay-As-You-Go
Plan Members .....	N/A	N/A	N/A
Annual Required Contribution .....	\$ 50,871	\$ 66,091	\$ 116,962
Interest on Net OPEB Obligation .....	81	4,935	5,016
Adjustment to Annual Required Contribution .....	(307)	(18,724)	(19,031)
Annual OPEB Cost .....	50,645	52,302	102,947
Contributions Made .....	38,967	43,548	82,515
Increase/(Decrease) in Net OPEB Obligation .....	11,678	8,754	20,432
Net OPEB Obligation, Beginning of Year .....	2,698	164,511	167,209
Net OPEB Obligation, End of Year .....	<u>\$ 14,376</u>	<u>\$ 173,265</u>	<u>\$ 187,641</u>

The City's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year 2017 are as follows (dollars in thousands):

<b>Schedule of Contributions, OPEB Costs and Net Obligations</b>			
<b>Fiscal Year Ended</b>	<b>Annual OPEB Cost</b>	<b>Percentage of Annual OPEB Cost Contributed</b>	<b>Net OPEB Obligation</b>
<b>Settlement Plan</b>			
12/31/2017	\$ 50,645	76.9%	\$ 14,376
12/31/2016	38,469	130.1	2,698
12/31/2015	43,645	133.5	14,280
<b>CBA Special Benefits</b>			
12/31/2017	\$ 52,302	83.3%	\$ 173,265
12/31/2016	45,560	87.0	164,511
12/31/2015	48,195	79.4	158,571
<b>Total</b>			
12/31/2017	\$ 102,947	80.2%	\$ 187,641
12/31/2016	84,029	106.7	167,209
12/31/2015	91,840	105.1	172,851

**Funded Status and Funding Progress** - As of January 1, 2017, the most recent actuarial valuation date, the actuarial accrued liability for benefits was \$842.9 million, all of which was unfunded. The covered payroll (annual payroll of active employees covered by the plan) was approximately \$2,627.7 million and the ratio of the unfunded actuarial accrued liability to the covered payroll was 32.1 percent.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revisions as the results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presents, as required, (unaudited) supplementary information following the notes to the financial statements.

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<b>Schedule of Funding Progress (dollars in thousands)</b>							
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll	
<b>Settlement Plan</b>							
12/31/2016	\$ -	\$ 331,496	\$ 331,496	0%	\$ 2,627,662	12.6 %	
<b>CBA Special Benefits</b>							
12/31/2016	\$ -	\$ 511,429	\$ 511,429	0%	\$ 1,547,102	33.1 %	
<b>Total</b>							
12/31/2016	\$ -	\$ 842,925	\$ 842,925	0%		32.1 %	

**Actuarial Method and Assumptions** – Projections of benefits for financial reporting purposes are based on the substantive plan (the plan understood by the employer and plan members) and included the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial method and assumptions used include techniques that are designed to reduce the effects of short term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long term perspective of the calculations.

For the Health Plan Benefits the entry age normal actuarial cost method was used. The actuarial assumptions included an annual healthcare cost trend rate of 8.0% for 2018, reduced by decrements to an ultimate rate of 5.0% in 2029. Rates included a 2.5% inflation assumption. The plan has not accumulated assets and does not hold assets in a segregated trust. However, the funds expected to be used to pay benefits are assumed to be invested for durations which will yield an annual return rate of 3.0%. The remaining Unfunded Accrued Actuarial Liability is being amortized as a level dollar amount over ten years. The benefits include lifetime benefits for the class of retirees (those who retired prior to August 23, 1989, Korshak group) and their dependents, lifetime fixed subsidy benefits for the annuitant category (except Korshak) hired prior to 2003, Non-CBA health benefits provided to duty disability participants under the active health plan payable to age 63/65.

For the Special Benefits under the CBA for Police and Fire, the contract's expiration dates are of June 30, 2016 (for Police Captains, Sergeants and Lieutenants) and June 30, 2017 for all other Police and Fire. The expectations consistent with the City's posture on sunsetting retiree health benefits, was that the CBA benefits would expire at the end of the current contract period and not be renewed. Negotiations are ongoing and expected to continue, based upon prior history, for two to three years. Since the City is required to honor the provisions of the existing contract until a new agreement is negotiated under the "Maintenance of Effort" protocol, the valuation has included liabilities for CBA benefits as if the actual expiration of the contracts was extended to 12/31/2019. This would mean liabilities are included only for payments on behalf of early retired, already retired and in pay status as of December 31 of the assumed expiration year of the contract (2019). The entry age normal method was selected. The actuarial assumptions included an annual health care cost trend rate of 8.0% in 2018, reduced by decrements to an ultimate rate of 5.0% in 2029. Rates included a 2.5% inflation assumption. The plan has not accumulated assets and does not hold assets in a segregated trust. The funds expected to be used to pay benefits are assumed to be invested for durations which will yield an annual return rate of 3.0%. The remaining Unfunded Accrued Actuarial Liability is being amortized as a level dollar amount over ten years.

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**Summary of Assumptions and Methods**

	Settlement Health Plan	CBA Special Benefits
Actuarial Valuation Date .....	December 31, 2016	December 31, 2016
Actuarial Cost Method .....	Entry Age Normal	Entry Age Normal
Amortization Method .....	Level Dollar, open	Level Dollar, open
Remaining Amortization Period .....	10 years	10 years
Asset Valuation Method .....	Market Value	Market Value
Actuarial Assumptions:		
Investment Rate of Return .....	3.0%	3.0%
Projected Salary Increases .....	2.5%	2.5%
	1.9% for 2017 then	1.9% for 2017 then
Healthcare Inflation Rate .....	8.0% to 5.0% in 2029	8.0% to 5.0% in 2029

**11) Risk Management**

The City is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; certain benefits for and injuries to employees, and natural disasters. The City provides worker's compensation benefits and employee health benefits under self-insurance programs except for insurance policies maintained for certain Enterprise Fund activities. The City uses various risk management techniques to finance these risks by retaining, transferring and controlling risks depending on the risk exposure.

Risks for O'Hare, Midway, and certain other major properties, along with various special events, losses from certain criminal acts committed by employees and public official bonds are transferred to commercial insurers. Claims have not exceeded the purchased insurance coverage in the past three years. Accordingly, no liability is reported for these claims. All other risks are retained by the City and are self-insured. The City pays claim settlements and judgments from the self-insured programs. Uninsured claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported. The General Fund is primarily used to record all non-Enterprise Fund claims. The estimated portion of non-Enterprise Fund claims not yet settled has been recorded in the Governmental Activities in the Statement of Net Position as claims payable along with amounts related to deferred compensatory time and estimated liabilities for questioned costs. As of December 31, 2017, the total amount of non-Enterprise Fund claims was \$528.8 million and Enterprise Fund was \$75.4 million. This liability is the City's best estimate based on available information. Changes in the reported liability for all funds are as follows (dollars in thousands):

	<b>2017</b>	<b>2016</b>
Balance, January 1 .....	\$ 585,372	\$ 572,360
Claims incurred and change in estimates .....	501,767	666,444
Claims paid on current and prior year events .....	(482,877)	(653,432)
Balance, December 31 .....	<u>\$ 604,262</u>	<u>\$ 585,372</u>

**12) Expenditure of Funds and Appropriation of Fund Balances**

The City expends funds by classification as they become available, and "Restricted" funds are expended first. If/when City Council formally sets aside or designates funds for a specific purpose, they are considered "Committed." The Mayor (or his/her designee) may in this capacity, also set aside or designate funds for specific purposes and all of these funds will be considered "Assigned." Any remaining funds, which are not specifically

**CITY OF CHICAGO, ILLINOIS**  
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allocated in one or more of the previous three categories, are considered "Unassigned" until such allocation is completed.

In addition to the categories above, any amounts that will be used to balance a subsequent year's budget will be considered "Assigned" as Budgetary Stabilization funds. The amounts may vary from fiscal year to fiscal year or depending on the City's budgetary condition, or may not be designated at all. The funds may be assigned by the Mayor or his designee, up to the amount of available "Unassigned" fund balance at the end of the previous fiscal year.

**Fund Balance Classifications**

On the fund financial statements, the Fund Balance consists of the following (dollars in thousands):

	Federal, State and Local Grants	Special Taxing Areas	Service Concession and Reserve	Bond, Note Redemption and Interest	STSC Debt Service	Community Development Improvement Projects	Other Governmental Funds
	General						
<b>Nonspendable Purpose:</b>							
Inventory .....	\$ 25,945	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STSC Blended Balance * .....	-	-	-	-	-	769,064	-
<b>Restricted Purpose:</b>							
Capital Projects .....	-	-	1,347,294	-	-	346,000	98,714
Grants .....	-	7,438	-	-	-	-	-
Debt Service .....	-	-	-	-	26,003	-	74,988
General Government .....	-	-	-	-	-	-	3,057
<b>Committed Purpose:</b>							
Budget and Credit Rating Stabilization ...	-	-	-	668,287	-	-	-
Repair, Maintenance and City Services ..	-	-	-	-	-	-	79,267
Pension Contributions Reserve .....	-	-	-	-	-	-	42,935
<b>Assigned Purpose:</b>							
Future obligations .....	16,900	-	-	-	-	-	-
Special Projects .....	53,000	-	-	-	-	-	-
Assigned for Future							
Appropriated Fund Balance .....	37,000	-	-	-	-	-	-
Unassigned .....	155,516	(248,840)	-	(1,513,194)	(328,993)	-	(38,423)
<b>Total Government Fund Balance .....</b>	<b>\$ 288,361</b>	<b>\$ (241,402)</b>	<b>\$ 1,347,294</b>	<b>\$ (844,907)</b>	<b>\$ (328,993)</b>	<b>\$ 795,067</b>	<b>\$ 346,000</b>
							\$ 260,538

\* The STSC is a blended component unity of the City. The STSC Blended Balance above, represents the sale of sales tax revenues that will be amortized over the life of the related bonds. As discussed in the Fund Deficit footnote 3c, the deficit within the City's Bonds, Note Redemption and Interest Fund represents this sale that has been deferred and will be funded through the recognition of the related amortization.

At the end of the fiscal year, total encumbrances amounted to \$16.9 million for the General Operating Fund, \$34.7 million for the Special Taxing Areas Fund, \$7.0 million for the Capital Projects Fund and \$24.8 million for the Non Major Special Revenue Fund.

**13) Deferred Outflows and Inflows of Resources**

In accordance with Government Accounting Standards Board Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, the City reports deferred outflows of resources in the Statement of Net Position in a separate section following Assets. Similarly, the City reports deferred inflows of resources in the Statement of Net Position in a separate section following Liabilities.

**CITY OF CHICAGO, ILLINOIS**  
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The components of the deferred outflows of resources and deferred inflows of resources at December 31, 2017 are as follows (dollars in thousands):

	Governmental Activities	Business-type Activities
<b>Deferred Outflows of Resources:</b>		
Deferred outflows from pension activities ...	\$ 3,906,856	\$ 718,440
Changes in proportionate share of pension contributions .....	5,521	228,233
Unamortized deferred bond refunding costs .....	177,493	223,908
Derivatives .....	-	24,319
<b>Total Deferred Outflows of Resources .....</b>	<b>\$ 4,089,870</b>	<b>\$ 1,194,900</b>
<b>Deferred Inflows of Resources:</b>		
Deferred inflows from pension activities ....	\$ 6,696,345	\$ 1,498,226
Changes in proportionate share of pension contributions .....	204,189	17,279
Long-Term lease and Service concession arrangements .....	1,513,194	1,589,697
<b>Total Deferred Inflows of Resources .....</b>	<b>\$ 8,413,728</b>	<b>\$ 3,105,202</b>

The components of the deferred inflows of resources related to the governmental funds at December 31, 2017 are as follows (dollars in thousands):

	Federal, State and Local Grants	Special Taxing Areas	Service Concession and Reserve	Bond, Note Redemption and Interest	Other Governmental Funds	Total Governmental Funds
	General					
<b>Governmental Funds:</b>						
<b>Deferred inflow of resources:</b>						
Property Taxes .....	\$ -	\$ -	\$ 459,590	\$ -	\$ 421,872	\$ 19,706
Utility Taxes .....	-	-	-	-	-	4,796
Grants .....	-	243,150	-	-	-	243,150
Charges for Services .....	1,968	-	-	-	-	1,968
Long-term Lease and Concession Agreements .....	-	-	-	1,513,194	-	1,513,194
<b>Total Governmental Funds .....</b>	<b>\$ 1,968</b>	<b>\$ 243,150</b>	<b>\$ 459,590</b>	<b>\$ 1,513,194</b>	<b>\$ 421,872</b>	<b>\$ 24,502</b>
						<b>\$ 3,346,076</b>

**14) Commitments and Contingencies**

The City is a defendant in various pending and threatened individual and class action litigation relating principally to claims arising from contracts, personal injury, property damage, police conduct, alleged discrimination, civil rights actions, and other matters. City management believes that the ultimate resolution of these matters will not have a material adverse effect on the financial position of the City.

The City participates in a number of federal- and state-assisted grant programs. These grants are subject to audits by or on behalf of the grantors to assure compliance with grant provisions. Based upon past experience and management's judgment, the City has made provisions in the General Fund for questioned costs and other amounts estimated to be disallowed. City management expects such provision to be adequate to cover actual amounts disallowed, if any.

As of December 31, 2017, the Enterprise Funds have entered into contracts for approximately \$666.7 million for construction projects.

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The City's pollution remediation obligation of \$35.0 million is primarily related to Brownfield redevelopment projects. These projects include removal of underground storage tanks, cleanup of contaminated soil, and removal of other environmental pollution identified at the individual sites. The estimated liability is calculated using the expected cash flow technique. The pollution remediation obligation is an estimate and subject to changes resulting from price increases or reductions, technology, or changes in applicable laws or regulations.

**15) Concession Agreements**

The major fund entitled Service Concession and Reserve Fund is used for the purpose of accounting for the deferred inflows associated with governmental fund long-term lease and concession transactions. Deferred inflows are amortized over the life of the related lease and concession agreements. Proceeds from these transactions may be transferred from this fund in accordance with ordinances approved by the City Council that define the use of proceeds.

In February 2009, the City completed a \$1.15 billion concession agreement to allow a private operator to manage and collect revenues from the City's metered parking system for 75 years. The City received an upfront payment of \$1.15 billion which was recognized as a deferred inflow that will be amortized and recognized as revenue over the term of the agreement. The City recognizes \$15.3 million of revenue for each year through 2083.

In December 2006, the City completed a long-term concession and lease of the City's downtown underground public parking system. The concession granted Chicago Loop Parking, LLC (CLP) the right to operate the garages and collect parking and related revenues for the 99-year term of the agreement. The City received an upfront payment of \$563.0 million of which \$347.8 million was simultaneously used to purchase three of the underground garages from the Chicago Park District. The City recognized a deferred inflow that will be amortized and recognized as revenue over the term of the lease. The City recognizes \$5.7 million of revenue for each year through 2105. In January 2014, CLP assigned all of its interests in the concession and lease agreement to LMG2, LLC, the designee of its lenders, in lieu of foreclosure by the lenders on their leasehold mortgage on the underground garages.

In January 2005, the City completed a long-term concession and lease of the Skyway. The concession granted a private company the right to operate the Skyway and to collect toll revenue from the Skyway for the 99-year term of the agreement. The City received an upfront payment of \$1.83 billion; a portion of the payment (\$446.3 million) advance refunded all of the outstanding Skyway bonds. The City recognized a deferred inflow of \$1.83 billion that will be amortized and recognized as revenue over the 99-year term of the agreement. The City recognizes \$18.5 million of revenue related to this transaction for each year through 2103. Skyway land, bridges, other facilities and equipment continue to be reported on the Statement of Net Position and will be depreciated, as applicable, over their useful lives. The deferred inflow of the Skyway is reported in the Proprietary Funds Statement of Net Position.

In February 2016, the owners of the Skyway concessionaire sold their ownership interests in the concessionaire to a new entity. Pursuant to the concession and lease agreement for the Skyway, the City approved the transfer of ownership interests.

In May 2016, the concessionaire of the City's downtown underground public parking garages sold its concession interest in the garages to Millennium Parking Garages, LLC. Pursuant to the concession and lease agreement for the garages, the City approved the transfer of the concession interest.

**16) Tax Abatements**

GASB Statement No. 77, *Tax Abatement Disclosures* ("GASB 77"), requires governments that enter into tax abatement agreements to disclose: (1) Brief descriptive information concerning the agreement; (2) The gross dollar amount of taxes abated during the period; and 3) Commitments made by government, other than to abate taxes, that are part of the tax abatement agreement.

**CITY OF CHICAGO, ILLINOIS**  
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**YEAR ENDED DECEMBER 31, 2017**

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**Tax Abatement Agreements Entered into Directly by the City**

**The Boeing Company**

The City entered into a Tax Reimbursement Payment Agreement with The Boeing Company ("Boeing") as of November 1, 2001. The relocation of Boeing constituted a substantial public benefit from its creation of not less than 500 permanent FTE jobs and through payment of various taxes and governmental charges and was expected to foster further economic growth and development in the City.

Boeing may submit to the City for each year of the agreement an annual reimbursement form for reimbursement of an amount equal to the portion of the Boeing General Real Estate Taxes paid during such calendar year to the City, the Board of Education of the City of Chicago and the City Library Fund, in aggregate. In the form, Boeing must certify compliance with the terms of the agreement including, without limitation, Boeing continues to meet certain operational criteria, occupies not less than 125,000 rentable square feet at the building as its corporate headquarters, has at least \$25.0 billion in annual world-wide revenues, and employs a minimum of 500 full time employees within Chicago.

The above listed real estate taxes are reimbursed by way of an annual payment to Boeing in an amount equal to the allocable share of the real estate taxes. The City is entitled to terminate the agreement and/or recover certain payments if Boeing does not comply with the terms of the agreement. For the 2017 reporting period, the tax reimbursement to Boeing totaled \$1.8 million.

**Tax Increment Financing**

The City adopted certain ordinances approving various redevelopment plans pursuant to provisions of the Tax Increment Allocation Redevelopment Act, 65 ILCS 5/11-7 4.4-1 (the "Act"). The redevelopment plans designate a "redevelopment project area" under the Act, and adopt tax increment allocation financing for each redevelopment project area.

In an effort to promote redevelopment and finance construction projects in the redevelopment project areas to eradicate blighted conditions, the City uses tax increment financing to reimburse developers for the costs of the TIF-funded improvements pursuant to the terms and conditions of redevelopment agreements entered into by the City and a developer. Projects range from new construction to redevelopment and expansion initiatives throughout the City. The maximum reimbursable amount is set forth in each agreement. If the total project cost is lower than the project budget established in the agreement, the reimbursable amount will be prorated.

For the 2017 reporting period, the amount of property tax revenue forgone by the City due to the agreements under the Tax Increment Allocation Redevelopment Act amounts to \$71.3 million on an accrual basis of accounting.

**Tax Abatement Agreements Entered Into By Other Governments**

**Cook County**

Cook County provides tax reductions under numerous programs with individuals, local businesses, and developers. The objective of the agreements is to encourage the development and rehabilitation of new and existing industrial and commercial property, reutilization of abandoned property, and increase multi-family residential affordable rental housing throughout Cook County by offering a real estate tax incentive. An eligibility application must be filed prior to commencement of a project and include a resolution from the municipality where the real estate is located. Once the project has been completed, the applicant must file an Incentive Appeal Form with the County Assessor's Office. Upon approval by the County Assessor's Office and based on the property classification, the applicant is eligible to receive one of the following tax incentives:

- Class 7a, 7b, and C: Property will be assessed at 10% of market value for the first 10 years, 15% in the 11th year and 20% in the 12th year

**CITY OF CHICAGO, ILLINOIS**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
**YEAR ENDED DECEMBER 31, 2017**

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- Class 7c: Property will be assessed at 10% of market value for the first 3 years, 15% in the 4th year and 20% in the 5th year.
- Class 6b: Property will be assessed at 10% of the market value for 10 years and for any subsequent 10-year renewal periods; if not renewed, 15% in the 11<sup>th</sup> year and 15% in the 12<sup>th</sup> year.
- Class L: Renewable properties will be assessed at 10% of market value for the first 10 years and for any subsequent 10-year renewal periods; if not renewed, 15% in the 11<sup>th</sup> year and 20% in the 12<sup>th</sup> year. Commercial properties will be assessed at 10% of market value for the first 10 years, 15% in the 11<sup>th</sup> year and 20% in the 12<sup>th</sup> year.

In the absence of the incentive, the property tax would be assessed at 25% of its market value. This incentive constitutes a substantial reduction in the level of assessment and results in significant tax savings for eligible applicants. For the 2017 reporting period, the amount of property tax revenue forgone by the City due to these incentives is estimated at \$12 million.

**17) Subsequent Events**

**Ratings**

In February 2018, Kroll Bond Rating Agency, Inc. (KBRA) upgraded the rating of the City's General Obligation bonds from BBB+ to A with a stable outlook.

In February 2018, Fitch Ratings, KBRA, Moody's, and Standard and Poor's withdrew their ratings on the City's Sales Tax revenue bonds as all of the outstanding Sales Tax bonds were defeated.

**Bonds**

In February 2018, the Sales Tax Securitization Corporation sold Sales Tax Securitization Bonds, Series 2018AB (\$680.3 million). The 2018A bonds (\$376.3 million) were issued at interest rates between 4.0% and 5.0% with mandatory sinking fund or maturity dates between January 1, 2031 and January 1, 2048. The 2018B bonds (\$304.0 million) were issued at an interest rate of 3.82% with mandatory sinking fund or maturity dates between January 1, 2039 and January 1, 2048. Proceeds will be used to provide funds for the City to refund certain of the City's outstanding General Obligation bonds and to pay costs of issuance.

**Commercial Paper and Lines of Credit**

In May 2018, the City amended terms the General Obligation Line of Credit Agreement and extended the expiration date to May 31, 2020.

As of December 31, 2017, the outstanding balance for the City's General Obligation Line of Credit was \$77.2 million. Since January 1, 2018, the City has not executed any additional draws and has paid down \$38.6 million. The City's repayment obligation under the line of credit is a general obligation of the City.

**Purchase and Sale of Assets**

The 2FM headquarters complex at 1685 N. Throop was sold to developer Sterling Bay for \$104.7 million in February 2018. As part of the same transaction, the City sold a portion of the former Kennedy King College campus to Sterling Bay for an additional \$1.3 million. A portion of the proceeds will be used to construct a new, \$37.0 million maintenance headquarters at 6800 S. Wentworth Ave.

In January 2018, 30.4 acres of vacant land located at 4301 W. Chicago Avenue was acquired for \$9.6 million for a new Public Safety Training Academy.

**CITY OF CHICAGO, ILLINOIS**  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
**YEAR ENDED DECEMBER 31, 2017**

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**Lease and Maintenance Agreements**

On March 28 2018, the City Council approved the new Airline Use and Lease Agreement ("AULA") for airlines operating at O'Hare. Apart from provisions regarding rates and charges that will become operative on July 1, 2018, the AULA went into effect as of May 12, 2018. The AULA provides that the aggregate of all rentals, fees and charges to be paid by the signatory airlines shall be sufficient to pay for the net cost of operating, maintaining and developing O'Hare. Specifically, AULA will allow the City to commence a \$6.1 billion terminal expansion program (known as the Terminal Area Plan or "TAP") that includes construction of several new gates, in addition to \$2.4 billion in additional pre-approved capital projects. The City is currently in the process of executing the AULA with each of the signatory airlines.

On April 18, 2018, the City Council authorized the City to enter into an agreement (the "City-CATCo Agreement"), with the Chicago Airlines Terminal Consortium ("CATCo") for the maintenance and operation of City-owned equipment in Terminals 1, 2, 3 and 5 at O'Hare and the provision of other aeronautical services to the City. Previously, CATCo was known as CICA Terminal Corporation and maintained equipment only for use by airlines operating in Terminal 5. The City-CATCo Agreement provides that CATCo's costs in providing services to the City thereunder constitute O&M expenses allocable to signatory airlines under the AULA. The City-CATCo Agreement will be executed in July 2018 and will be effective retroactive to May 12, 2018.

On April 18, 2018, the City Council authorized the City to enter into an agreement with ORD Fuel Company, LLC ("Fuel System Lease Agreement") under which the parties agree that the fuel system is to be used for the receipt, storage, delivery, distribution, handling, and dispensing of aircraft fuel and automotive fuel for ground services equipment and other vehicles at O'Hare and the carrying on of activities reasonably necessary or convenient in connection with the Fuel System Lease Agreement. ORD Fuel Company, LLC's performance pursuant to the Fuel System Lease Agreement is anticipated to improve operations and efficiency throughout O'Hare.

**REQUIRED  
SUPPLEMENTARY  
INFORMATION**

**REQUIRED SUPPLEMENTARY INFORMATION**

**CITY OF CHICAGO, ILLINOIS**

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS**

**Last Three Fiscal Years (dollars are in thousands)**

	2017	2016	2015
<b>Municipal Employees':</b>			
Total pension liability			
Service cost .....	\$ 572,534	\$ 619,743	\$ 226,816
Interest .....	915,711	878,369	909,067
Benefit changes .....	-	-	2,140,009
Differences between expected and actual experience .....	(177,755)	(127,119)	(109,835)
Assumption changes .....	(7,431,191)	(578,920)	8,711,755
Benefit payments including refunds .....	(888,174)	(859,672)	(826,036)
Pension plan administrative expense .....	-	-	-
Net change in total pension liability .....	\$ (7,008,875)	\$ (67,599)	\$ 11,051,776
Total pension liability - beginning .....	23,291,271	23,358,870	12,307,094
Total pension liability - ending (a) .....	<u>\$ 16,282,396</u>	<u>\$ 23,291,271</u>	<u>\$ 23,358,870</u>
Plan fiduciary net position			
Contributions-employer .....	\$ 261,764	\$ 149,718	\$ 149,225
Contributions-employee .....	134,765	130,391	131,428
Net investment income .....	610,515	281,419	114,025
Benefit payments including refunds of employee contribution .....	(888,174)	(859,672)	(826,036)
Administrative expenses .....	(6,473)	(7,056)	(6,701)
Other .....	5,394	-	-
Net change in plan fiduciary net position .....	\$ 117,791	\$ (305,200)	\$ (438,059)
Plan fiduciary net position - beginning .....	4,436,227	4,741,427	5,179,486
Plan fiduciary net position - ending (b) .....	<u>\$ 4,554,018</u>	<u>\$ 4,436,227</u>	<u>\$ 4,741,427</u>
Net pension liability - ending (a)-(b) .....	<u>\$ 11,728,378</u>	<u>\$ 18,855,044</u>	<u>\$ 18,617,443</u>
Plan fiduciary net position as a percentage of the total pension liability .....	27.97 %	19.05 %	20.30 %
Covered payroll* .....	\$ 1,686,533	\$ 1,646,939	\$ 1,643,481
Employer's net pension liability as a percentage of covered payroll .....	695.41 %	1,144.85 %	1,132.81 %

\*Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

Note:

Beginning with fiscal year 2015, the City will accumulate ten years of data.

**REQUIRED SUPPLEMENTARY INFORMATION**
**CITY OF CHICAGO, ILLINOIS**
**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS - Continued**
**Last Three Fiscal Years (dollars are in thousands)**

	2017	2016	2015
<b>Laborers':</b>			
Total pension liability			
Service cost * .....	\$ 80,232	\$ 82,960	\$ 38,389
Interest .....	154,047	150,166	153,812
Benefit changes .....	150	-	384,033
Differences between expected and actual experience .....	(62,178)	(30,428)	(46,085)
Assumption changes .....	(1,074,754)	(62,905)	1,175,935
Benefit payments including refunds .....	(157,050)	(154,683)	(152,530)
Pension plan administrative expense .....	(3,985)	(4,080)	(3,844)
Net change in total pension liability .....	\$ (1,063,538)	\$ (18,970)	\$ 1,549,710
Total pension liability - beginning .....	3,693,645	3,712,615	2,162,905
Total pension liability - ending (a) .....	\$ 2,630,107	\$ 3,693,645	\$ 3,712,615
Plan fiduciary net position			
Contributions-employer .....	\$ 35,457	\$ 12,603	\$ 12,412
Contributions-employee .....	17,411	17,246	16,844
Net investment income .....	207,981	57,997	(22,318)
Benefit payments including refunds of employee contribution .....	(157,050)	(154,683)	(152,530)
Administrative expenses .....	(3,985)	(4,080)	(3,844)
Other .....	-	-	-
Net change in plan fiduciary net position .....	\$ 99,814	\$ (70,917)	\$ (149,436)
Plan fiduciary net position - beginning .....	1,167,740	1,238,657	1,388,093
Plan fiduciary net position - ending (b) .....	\$ 1,267,554	\$ 1,167,740	\$ 1,238,657
Net pension liability - ending (a)-(b) .....	\$ 1,362,553	\$ 2,525,905	\$ 2,473,958
Plan fiduciary net position as a percentage of the total pension liability .....	48.19 %	31.61 %	33.36 %
Covered payroll ** .....	\$ 208,442	\$ 208,155	\$ 204,773
Employer's net pension liability as a percentage of covered payroll .....	653.68 %	1,213.47 %	1,208.15 %

\* Includes pension plan administrative expense

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

Note:

Beginning with fiscal year 2015, the City will accumulate ten years of data.

**REQUIRED SUPPLEMENTARY INFORMATION**
**CITY OF CHICAGO, ILLINOIS**
**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS - Continued**
**Last Three Fiscal Years (dollars are in thousands)**

Policemen's:	2017	2016	2015
Total pension liability			
Service cost *	\$ 237,333	\$ 220,570	\$ 213,585
Interest	917,720	851,098	832,972
Benefit changes	-	606,250	-
Differences between expected and actual experience	(299,923)	1,801	(105,969)
Assumption changes	238,975	112,585	-
Benefit payments including refunds	(747,891)	(707,196)	(676,777)
Pension plan administrative expense	(4,843)	(4,750)	(4,508)
Net change in total pension liability	\$ 341,371	\$ 1,080,358	\$ 259,303
Total pension liability - beginning	13,113,091	12,032,733	11,773,430
Total pension liability - ending (a)	<u>\$ 13,454,462</u>	<u>\$ 13,113,091</u>	<u>\$ 12,032,733</u>
Plan fiduciary net position			
Contributions-employer	\$ 494,483	\$ 272,428	\$ 572,836
Contributions-employee	103,011	101,476	107,626
Net investment income	412,190	142,699	(5,334)
Benefit payments including refunds of employee contribution	(747,891)	(707,196)	(676,777)
Administrative expenses	(4,843)	(4,750)	(4,508)
Other	97	1,413	3,092
Net change in plan fiduciary net position	\$ 257,047	\$ (193,930)	\$ (3,065)
Plan fiduciary net position - beginning	2,865,019	3,058,949	3,062,014
Plan fiduciary net position - ending (b)	<u>\$ 3,122,066</u>	<u>\$ 2,865,019</u>	<u>\$ 3,058,949</u>
Net pension liability - ending (a)-(b)	<u>\$ 10,332,396</u>	<u>\$ 10,248,072</u>	<u>\$ 8,973,784</u>
Plan fiduciary net position as a percentage of the total pension liability	23.20 %	21.85 %	25.42 %
Covered payroll**	\$ 1,150,406	\$ 1,119,527	\$ 1,086,608
Employer's net pension liability as a percentage of covered payroll	898.15 %	915.39 %	825.85 %

\* Includes pension plan administrative expense

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

Note:

Beginning with fiscal year 2015, the City will accumulate ten years of data.

**REQUIRED SUPPLEMENTARY INFORMATION**

**CITY OF CHICAGO, ILLINOIS**

**SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS - Concluded**

**Last Three Fiscal Years (dollars are in thousands)**

Firemen's:	2017	2016	2015
Total pension liability			
Service cost *	\$ 93,367	\$ 94,115	\$ 87,203
Interest	371,622	342,085	338,986
Benefit changes	-	227,213	-
Differences between expected and actual experience	26,954	24,110	(7,981)
Assumption changes	414,219	(74,373)	176,282
Benefit payments including refunds	(306,098)	(286,759)	(278,017)
Pension plan administrative expense	(3,172)	(3,217)	(3,149)
Net change in total pension liability	\$ 596,892	\$ 323,174	\$ 313,324
Total pension liability - beginning	5,149,258	4,826,084	4,512,760
Total pension liability - ending (a)	<u>\$ 5,746,150</u>	<u>\$ 5,149,258</u>	<u>\$ 4,826,084</u>
Plan fiduciary net position			
Contributions-employer	\$ 228,453	\$ 154,101	\$ 236,104
Contributions-employee	47,364	48,960	46,552
Net investment income	140,570	60,881	7,596
Benefit payments including refunds of employee contribution	(306,098)	(286,759)	(278,017)
Administrative expenses	(3,172)	(3,217)	(3,149)
Other	22	(53)	7
Net change in plan fiduciary net position	\$ 107,139	\$ (26,087)	\$ 9,093
Plan fiduciary net position - beginning	1,019,014	1,045,101	1,036,008
Plan fiduciary net position - ending (b)	<u>\$ 1,126,153</u>	<u>\$ 1,019,014</u>	<u>\$ 1,045,101</u>
Net pension liability - ending (a)-(b)	<u>\$ 4,619,997</u>	<u>\$ 4,130,244</u>	<u>\$ 3,780,983</u>
Plan fiduciary net position as a percentage of the total pension liability	19.60 %	19.79 %	21.66 %
Covered payroll **	\$ 469,407	\$ 478,471	\$ 465,232
Employer's net pension liability as a percentage of covered payroll	984.22 %	863.22 %	812.71 %

\* Includes pension plan administrative expense

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

Note:

Beginning with fiscal year 2015, the City will accumulate ten years of data.

**REQUIRED SUPPLEMENTARY INFORMATION**  
**CITY OF CHICAGO, ILLINOIS**  
**SCHEDULE OF CONTRIBUTIONS**  
**Last Ten Fiscal Years (dollars are in thousands)**

**Municipal Employees':**

Years Ended December 31,	Contributions in Relation to the Actuarially Determined Contribution		Contribution Deficiency	Covered Payroll **	Contributions as a percentage of Covered Payroll
	Actuarially Determined Contributions*	Determined Contribution			
2008	\$ 360,387	\$ 146,803	\$ 213,584	\$ 1,543,977	9.51 %
2009	413,509	148,047	265,462	1,551,973	9.54 %
2010	483,948	154,752	329,196	1,541,388	10.04 %
2011	611,756	147,009	464,747	1,605,993	9.15 %
2012	690,823	148,859	541,964	1,590,794	9.36 %
2013	820,023	148,197	671,826	1,580,289	9.38 %
2014	839,039	149,747	689,292	1,602,978	9.34 %
2015	677,200	149,225	527,975	1,643,481	9.08 %
2016	961,770	149,718	812,052	1,646,939	9.09 %
2017	1,005,457	261,764	743,693	1,686,533	15.52 %

\* The funding method mandated by the Illinois Pension Code is insufficient to avoid insolvency, and without a change, the Fund is projected to become insolvent within the next 10 years (during 2025). Therefore, the actuarially determined contribution is comprised of an employer normal cost payment and a 30-year, level dollar amortization payment on the unfunded actuarial accrued liability.

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

**Laborers':**

Years Ended December 31,	Contributions in Relation to the Actuarially Determined Contribution		Contribution Deficiency	Covered Payroll **	Contributions as a percentage of Covered Payroll
	Actuarially Determined Contributions *	Determined Contribution			
2008	\$ 17,652	\$ 15,233	\$ 2,419	\$ 216,744	7.03 %
2009	33,518	14,627	18,891	208,626	7.01 %
2010	46,665	15,352	31,313	199,863	7.68 %
2011	57,259	12,779	44,480	195,238	6.55 %
2012	77,566	11,853	65,713	198,790	5.96 %
2013	106,199	11,583	94,616	200,352	5.78 %
2014	106,019	12,161	93,858	202,673	6.00 %
2015	79,851	12,412	67,439	204,773	6.06 %
2016	117,033	12,603	104,430	208,155	6.05 %
2017	124,226	35,457	88,769	208,442	17.01 %

\* The LABF Statutory Funding does not conform to Actuarial Standards of Practice, therefore, the actuarially determined contribution is equal to the normal cost plus an amount to amortize the unfunded liability using dollar payments and a 30 year open amortization period.

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

**REQUIRED SUPPLEMENTARY INFORMATION**  
**CITY OF CHICAGO, ILLINOIS**  
**SCHEDULE OF CONTRIBUTIONS - Continued**  
**Last Ten Years (dollars are in thousands)**

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**Policemen's:**

Years Ended December 31,	Actuarially Determined Contributions *	Contributions in Relation to the Actuarially Determined Contribution			Covered Payroll **	Contributions as a percentage of Covered Payroll
		Contribution Deficiency	Covered Payroll	Payroll		
2008	\$ 318,235	\$ 172,836	\$ 145,399	\$ 1,023,581		16.89 %
2009	339,488	172,044	167,444	1,011,205		17.01 %
2010	363,625	174,501	189,124	1,048,084		16.65 %
2011	402,752	174,035	228,717	1,034,404		16.82 %
2012	431,010	197,885	233,125	1,015,171		19.49 %
2013	474,177	179,521	294,656	1,015,426		17.68 %
2014	491,651	178,158	313,493	1,074,333		16.58 %
2015	785,501	575,928	209,573	1,086,608		53.00 %
2016	785,695	273,840	511,855	1,119,527		24.46 %
2017	910,938	494,580	416,358	1,150,406		42.99 %

\* The PABF Statutory Funding does not conform to Actuarial Standards of Practice; therefore, for fiscal years 2015 and after, the actuarially determined contribution is equal to the normal cost plus a 30-year level dollar amortization of the unfunded actuarial liability. Prior to 2015 the actuarially determined contribution was equal to the "ARC" which was equal to normal cost plus a 30-year open level percent amortization of the unfunded actuarial liability.

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

**Firemen's:**

Years Ended December 31,	Actuarially Determined Contributions *	Contributions in Relation to the Actuarially Determined Contribution			Covered Payroll **	Contributions as a percentage of Covered Payroll
		Contribution Deficiency	Covered Payroll	Payroll		
2008	\$ 189,941	\$ 81,258	\$ 108,683	\$ 396,182		20.51 %
2009	203,867	89,212	114,655	400,912		22.25 %
2010	218,388	80,947	137,441	400,404		20.22 %
2011	250,056	82,870	167,186	425,385		19.48 %
2012	271,506	81,522	189,984	418,965		19.46 %
2013	294,878	103,669	191,209	416,492		24.89 %
2014	304,265	107,334	196,931	460,190		23.32 %
2015	323,545	236,104	87,441	465,232		50.75 %
2016	333,952	154,101	179,851	478,471		32.21 %
2017	372,845	228,453	144,392	469,407		48.67 %

\* The historically FABF Statutory Funding does not conform to Actuarial Standards of Practice, therefore, the Actuarially Determined Contribution is equal to the normal cost plus an amount to amortize the unfunded liability using level dollar payments and a 30 year amortization period. Amounts for fiscal years prior to 2015 were based on the "ARC" which was equal to normal cost plus an amount to amortize the unfunded liability using a 30-year open period level dollar amortization.

\*\* Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll paid during fiscal year.

**REQUIRED SUPPLEMENTARY INFORMATION**  
**CITY OF CHICAGO, ILLINOIS**  
**SCHEDULE OF CONTRIBUTIONS - Concluded**

Actuarial Methods and Assumptions:	Municipal Employees'	Laborers'	Policemen's	Firemen's
Actuarial valuation date.....	12/31/2017 (a)	12/31/2017 (b)	12/31/2017	12/31/2017
Actuarial cost method.....	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Asset valuation method.....	5-yr. Smoothed Market	5-yr. Smoothed Market	5-yr. Smoothed Market	5-yr. Smoothed Market
Actuarial assumptions:				
Inflation .....	2.50%	2.25%	2.75%	2.50%
Salary increases .....	3.50% - 7.75% (c)	3.00% (d)	3.75% (e)	3.75% (e)
Investment rate of return .....	7.0% (f)	7.25% (g)	7.25%	7.50%
Retirement Age .....	(h)	(i)	(j)	(i)
Mortality .....	(k)	(l)	(m)	(n)
Other information .....	(o)	(p)	(q)	(q)

(a) Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the middle of the year.

(b) Actuarially determined contribution rates are calculated as of December 31, which is 12 months prior to the end of the fiscal year in which contributions are reported.

(c) (1.50%-6.50% for 2018-2022), varying by years of service.

(d) Plus a service-based increase in the first 9 years.

(e) Salary increase rates based on age-related productivity and merit rates plus inflation.

(f) Net of investment expense.

(g) Net of investment expense, including inflation.

(h) For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience of the Fund (effective December 31, 2017).  
For employees first hired on or after January 1, 2011 and before July 6, 2017, rates of retirement for each age from 62 to 80 were used (effective December 31, 2011).  
For employees first hired on or after July 6, 2017, rates of retirement for each age from 62 to 80 were used (effective December 31, 2017).

(i) Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2017, actuarial valuation pursuant to an experience study of the period January 1, 2012, through December 31, 2016.

(j) Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2014, actuarial valuation pursuant to an experience study of the period January 1, 2009, through December 31, 2013.

(k) Post-retirement mortality rates were based on the RP-2014 Healthy Annuitant Mortality Tables, set forward two years for males and one year for females, and projected generationally using scale MP-2016. Pre-retirement mortality rates were based on 120% of the RP-2014 Employee Mortality Tables projected generationally using scale MP-2016.

(l) Post Retirement Mortality: Scaling factors of 117% for males, and 102% for females of the RP-2014 Blue Collar Healthy Annuitant mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales. No adjustment is made for post-disabled mortality.  
Pre Retirement Mortality: Scaling factors of 109% for males, and 103% for females of the RP-2014 Blue Collar Employee mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.

(m) Post-Retirement Healthy mortality rates: Sex distinct Retirement Plans 2014 Healthy Annuitant mortality table weighted 108% for males and 97% for females.  
Pre-Retirement mortality rates: Sex distinct Retirement Plans 2014 Total Employee mortality table weighted 85% for males and 115% for females. Disabled Mortality: Sex distinct Retirement Plans 2014 Healthy Annuitant mortality table weighted 115% for males and 115% for females

(n) Post Retirement Mortality: Scaling factors of 106% for males, and 98% for females of the RP-2014 Blue Collar Healthy Annuitant mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.  
Disabled Mortality: Scaling factors of 107% for males, and 99% for females of the RP-2014 Blue Collar Healthy Annuitant mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.  
Pre-Retirement Mortality: Scaling factors of 92% for males, and 100% for females of the RP-2014 Blue Collar Employee mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.  
Future mortality improvements in pre- and post-retirement mortality are reflected by projecting the base mortality tables back from the year 2014 to the year 2006 using the MP-2014 projection scale and projecting from 2006 using the MP-2017 projection scale.

(o) Other assumptions: Same as those used in the December 31, 2017, actuarial funding valuations.

(p) The actuarial valuation is based on the statutes in effect as of December 31, 2017. Benefit changes as a result of Public Act 100-0023 were recognized in the Total Pension Liability as of December 31, 2017.

(q) The actuarial valuation is based on the statutes in effect as of December 31, 2017.

**REQUIRED SUPPLEMENTARY INFORMATION**

**CITY OF CHICAGO, ILLINOIS**

**SCHEDULE OF OTHER POSTEMPLOYMENT BENEFITS FUNDING PROGRESS**

**Last Three Fiscal Years (dollars are in thousands)**

	Actuarial Valuation Date	Actuarial Value (a)	Actuarial Accrued Liability (AAL)	Actuarial Accrued Liability (UAAL)	Funded Ratio (a/b)	Covered Payroll (c)	Unfunded (Surplus) AAL as a Percentage of Covered Payroll							
							((b-a) / c)							
<b>City of Chicago</b>														
<b>Settlement Plan</b>														
2015 .....	12/31/2014	-	\$ 311,748	\$ 311,748	-	%	2,487,787	12.53 %						
2016 .....	12/31/2015	-	254,910	254,910	-		2,563,649	9.94						
2017 .....	12/31/2016	-	331,496	331,496	-		2,627,662	12.62						
<b>CBA Special Benefits</b>														
2015 .....	12/31/2014	-	\$ 468,889	\$ 468,889	-	%	1,438,428	32.60 %						
2016 .....	12/31/2015	-	460,612	460,612	-		1,499,552	30.72						
2017 .....	12/31/2016	-	511,429	511,429	-		1,547,102	33.06						

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**APPENDIX D**

**PROPERTY TAXES**

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## PROPERTY TAXES

### Real Property Assessment, Tax Levy and Collection Procedures

#### *General*

Information in this Appendix provides a general summary of the current procedures for real property assessment, tax levy and tax collection in Cook County. The following is not an exhaustive discussion, nor can there be any assurance that the procedures described in this Appendix will not be changed either retroactively or prospectively. The Illinois laws relating to real property taxation are contained in the Illinois Property Tax Code (the “*Property Tax Code*”).

Substantially all (approximately 99.99 percent) of the “Equalized Assessed Valuation” (described below) of taxable property in the City is located in Cook County. The remainder is located in DuPage County. Accordingly, unless otherwise indicated, the information set forth in this Appendix and elsewhere in this Official Statement with respect to taxable property in the City does not reflect the portion situated in DuPage County.

#### *Assessment*

The Cook County Assessor (the “*Assessor*”) is responsible for the assessment of all taxable real property within Cook County, except for certain railroad property and pollution control equipment assessed directly by the State. One-third of the real property in Cook County is reassessed each year on a repeating triennial schedule established by the Assessor. The suburbs in the northern and northwestern portions of Cook County were reassessed in 2016. The suburbs in the western and southern portions of Cook County were reassessed in 2017. The City was reassessed in 2018.

Real property in Cook County is separated into various classifications for assessment purposes. After the Assessor establishes the fair cash value of a parcel of land, that value is multiplied by one of the classification percentages to arrive at the assessed valuation (the “*Assessed Valuation*”) for the parcel. Beginning with the 2009 tax year, the classification percentages range from 10 to 25 percent depending on the type of property (e.g., residential, industrial, commercial) and whether it qualifies for certain incentives for reduced rates. For prior years, the classification percentages ranged from 16 to 38 percent.

The Cook County Board of Commissioners has adopted various amendments to Cook County’s Real Property Assessment Classification Ordinance (the “*Classification Ordinance*”), pursuant to which the Assessed Valuation of real property is established. Among other things, these amendments have reduced certain property classification percentages, lengthened certain renewal periods of classifications and created new property classifications.

The Assessor has established procedures enabling taxpayers to contest the Assessor’s tentative Assessed Valuations. Once the Assessor certifies final Assessed Valuations, a taxpayer can seek review of its assessment by the Cook County Board of Review (the “*Board of Review*”). The Board of Review has powers to review and adjust Assessed Valuations set by the Assessor. Owners of property are able to appeal decisions of the Board of Review to the Illinois Property Tax Appeal Board (the “*PTAB*”), a state-wide administrative body, or to the Circuit Court. The PTAB has the power to determine the Assessed Valuation of real property based on equity and the weight of the evidence. Based on the amount of the proposed change in assessed valuation, taxpayers may appeal decisions of the PTAB to either the Circuit Court or the Illinois Appellate Court under the Illinois Administrative Review Law.

In a series of PTAB decisions, the PTAB reduced the assessed valuations of certain commercial and industrial property in Cook County based upon the application of median levels of assessment derived from IDOR sales-ratio studies instead of utilizing the assessment percentages provided in the Classification Ordinance. On appeal, the Illinois Appellate Court determined that it was improper for the PTAB, on its own initiative, to use the sales-ratio studies when such studies were not even raised as an issue by the taxpayer before the Board of Review or in its appeal to the PTAB.

The Appellate Court decisions do not preclude a taxpayer in a properly presented case from introducing into evidence sales-ratio studies for the purpose of obtaining an assessment below that which would result from application of the Classification Ordinance. No prediction can be made whether any currently pending or future case would be successful. The City believes that the impact of any such case on the City would be minimal, as the City's ability to levy or collect real property taxes would be unaffected.

As an alternative to seeking review of Assessed Valuations by the PTAB, taxpayers who have first exhausted their remedies before the Board of Review may file an objection in the Circuit Court. The City filed a petition to intervene in certain of these proceedings for the first time in 2003, but the Circuit Court denied the City's petition in early 2004. The City appealed the Circuit Court decision. On appeal, the Circuit Court decision was reversed and the matter was remanded to the Circuit Court with instructions to allow the City to proceed with its petitions to intervene. In addition, in cases where the Assessor agrees that an assessment error has been made after tax bills have been issued, the Assessor can correct the Assessed Valuation, and thus reduce the amount of taxes due, by issuing a Certificate of Error.

#### *Equalization*

After the Assessed Valuation for each parcel of real estate in a county has been determined for a given year including any revisions made by the Board of Review, the IDOR reviews the assessments and determines an equalization factor (the "*Equalization Factor*"), commonly called the "multiplier," for each county. The purpose of equalization is to bring the aggregate assessed value of all real property, except farmland, wind turbines with a nameplate capacity of at least 0.5 megawatts and undeveloped coal, in each county to the statutory requirement of 33-1/3 percent of estimated fair cash value. Adjustments in Assessed Valuation made by the PTAB or the courts are not reflected in the Equalization Factor. The Assessed Valuation of each parcel of real estate in Cook County is multiplied by Cook County's Equalization Factor to determine the parcel's equalized assessed valuation (the "*Equalized Assessed Valuation*").

The Equalized Assessed Valuation for each parcel is the final property valuation used for determination of tax liability. The aggregate Equalized Assessed Valuation for all parcels in any taxing body's jurisdiction, after reduction for all applicable exemptions, plus the valuation of property assessed directly by the State, constitutes the total real estate tax base for the taxing body and is the figure used to calculate tax rates (the "*Assessment Base*"). The Equalization Factor for a given year is used in computing the taxes extended for collection in the following year. The Equalization Factors for each of the last 10 tax levy years, from 2008 through 2017 (the most recent years available), are listed in this Official Statement under "FINANCIAL DISCUSSION AND ANALYSIS—Property Taxes" (see the table captioned "ASSESSED, EQUALIZED ASSESSED AND ESTIMATED VALUE OF ALL TAXABLE PROPERTY 2008-2017").

In 1991, legislation was enacted by the State which provided that for 1992 and for subsequent years' tax levies, the Equalized Assessed Valuation used to determine any applicable tax limits is the one for the immediately preceding year and not the current year. This legislation impacts taxing districts with rate limits only and currently does not apply to the City. See "—Property Tax Limit Considerations" below.

### *Exemptions*

The State Constitution allows homestead exemptions for residential property. Pursuant to the Illinois Property Tax Code, property must be occupied by the owner as a principal residence on January 1 of the tax year for which the exemption will be claimed.

The annual general homestead exemption provides for the reduction of the Equalized Assessed Valuation ("EAV") of certain property owned and used exclusively for residential purposes by the amount of the increase over the 1977 EAV, currently up to a maximum reduction of \$10,000 in Cook County and \$6,000 in all other counties. There is an additional homestead exemption for senior citizens (individuals at least 65 years of age), for whom the Assessor is authorized to reduce the EAV by \$8,000. There is also an exemption available for homes owned and exclusively used for residential purposes by disabled veterans or their spouses, for whom the Assessor is authorized, depending on the extent of disability, to reduce the EAV by \$2,500 or \$5,000 or to provide a 100 percent exemption. An additional exemption is available for disabled persons, for whom the Assessor is authorized to reduce the EAV by \$2,000. An exemption is available for homestead improvements by an owner of a single family residence of up to \$75,000 of the increase in the fair cash value of a home due to certain home improvements to an existing structure for at least four years from the date the improvement is completed and occupied. Senior citizens whose household income is \$65,000 or less, and who are either the owner of record or have a legal or equitable interest in the property, qualify to have the EAV of their property frozen in the year in which they first qualify for the so-called "freeze" and each year thereafter in which the qualifying criteria are maintained. Each year applicants for the Senior Citizens Assessment Freeze Homestead Exemption must file the appropriate application and affidavit with the chief county assessment office.

Aside from homestead exemptions, upon application, review and approval by the Board of Review, or upon an appeal to IDOR, there are exemptions generally available for properties of religious, charitable (including qualifying not-for-profit hospitals), and educational organizations, as well as units of federal, state and local governments.

Additionally, counties have been authorized to create special property tax exemptions in long-established residential areas or in areas of deteriorated, vacant or abandoned homes and properties. Under such an exemption, long-time, residential owner-occupants in eligible areas would be entitled to a deferral or exemption from that portion of property taxes resulting from an increase in market value because of refurbishment or renovation of other residences or construction of new residences in the area. On June 5, 2001, Cook County enacted the Longtime Homeowner Exemption Ordinance, which provides property tax relief from dramatic rises in property taxes directly or indirectly attributable to gentrification in the form of an exemption. This is generally applicable to homeowners: (i) who have resided in their homes for 10 consecutive years (or five consecutive years for homeowners who have received assistance in the acquisition of the property as part of a government or nonprofit housing program), (ii) whose annual household income for the year of the homeowner's triennial assessment does not exceed 115 percent of the Chicago Primary Metropolitan Statistical Area median income as defined by the United States Department of Housing and Urban Development, (iii) whose property has increased in assessed value to a level exceeding 150 percent of the current average assessed value for properties in the assessment district where the property is located, (iv) whose property has a market value for assessment purposes of \$300,000 or less in the current reassessment year, and (v) who, for any triennial assessment cycle, did not cause a substantial improvement which resulted in an increase in the property's fair cash value in excess of the \$45,000 allowance set forth in the Property Tax Code.

### *Tax Levy*

There are over 800 units of local government (the “*Units*”) located in whole or in part in Cook County that have taxing power. The major Units having taxing power over property within the City are the City, the Park District, CBOE, the School Finance Authority, City Colleges, MWRD, Cook County and the Forest Preserve.

As part of the annual budgetary process of the Units, each year in which the determination is made to levy real estate taxes, proceedings are adopted by the governing body for each Unit. The tax levy proceedings impose the Units’ respective real estate taxes in terms of a dollar amount. Each Unit certifies its real estate tax levy, as established by the proceedings, to the County Clerk’s Office. The remaining administration and collection of the real estate taxes is statutorily assigned to the County Clerk and the County Treasurer, who is also the County Collector (the “*County Collector*”).

After the Units file their annual tax levies, the County Clerk computes the annual tax rate for each Unit by dividing the levy of each Unit by the Assessment Base of the respective Unit. If any tax rate thus calculated or any component of such a tax rate (such as a levy for a particular fund) exceeds any applicable statutory rate limit, the County Clerk disregards the excessive rate and applies the maximum rate permitted by law.

The County Clerk then computes the total tax rate applicable to each parcel of real property by aggregating the tax rates of all the Units having jurisdiction over the particular parcel. The County Clerk enters in the books prepared for the County Collector (the “*Warrant Books*”) the tax (determined by multiplying that total tax rate by the Equalized Assessed Valuation of that parcel), along with the tax rates, the Assessed Valuation and the Equalized Assessed Valuation. The Warrant Books are the County Collector’s authority for the collection of taxes and are used by the County Collector as the basis for issuing tax bills to all property owners.

The Illinois Truth in Taxation Law (the “*Truth in Taxation Law*”) contained within the Property Tax Code imposes procedural limitations on a Unit’s real estate taxing powers and requires that a notice in a prescribed form must be published if the aggregate annual levy is estimated to exceed 105 percent of the levy of the preceding year, exclusive of levies for debt service, levies made for the purpose of paying amounts due under public building commission leases and election costs. A public hearing must also be held, which may not be in conjunction with the budget hearing of the Unit on the adoption of the annual levy. No amount in excess of 105 percent of the preceding year’s levy may be used as the basis for issuing tax bills to property owners unless the levy is accompanied by certification of compliance with the foregoing procedures. The Truth in Taxation Law does not impose any limitations on the rate or amount of the levy to pay principal of and interest on the general obligations bonds and notes of the City.

### *Collection*

Property taxes are collected by the County Collector, who remits to each Unit its share of the collections. Taxes levied in one year become payable during the following year in two installments, the first due on March 1 and the second on the later of August 1 or 30 days after the mailing of the tax bills. The first installment is an estimated bill calculated at 55 percent of the prior year’s tax bill. The second installment is for the balance of the current year’s tax bill, and is based on the current levy, assessed value and Equalization Factor and applicable tax rates, and reflects any changes from the prior year in those factors. Taxes on railroad real property used for transportation purposes are payable in one lump sum on the same date as the second installment.

The following table sets forth the second installment penalty date for the tax years 2008 to 2017; the first installment penalty date has been March 1, March 2, or March 3 for all years.

<b>Second Installment</b>	
<b>Tax Year</b>	<b>Penalty Date</b>
2017	August 1, 2018
2016	August 1, 2017
2015	August 1, 2016
2014	August 3, 2015
2013	August 1, 2014
2012	August 1, 2013
2011	November 1, 2012
2010	November 1, 2011
2009	December 13, 2010
2008	December 1, 2009

Cook County may provide for tax bills to be payable in four installments instead of two. Cook County has not determined to require payment of tax bills in four installments. During the periods of peak collections, tax receipts are forwarded to each Unit not less than weekly.

At the end of each collection year, the County Collector presents the Warrant Books to the Circuit Court and applies for a judgment for all unpaid taxes. The court order resulting from the application for judgment provides for an annual sale of all unpaid taxes shown on the year's Warrant Books (the "*Annual Tax Sale*"). The Annual Tax Sale is a public sale, at which time successful tax buyers pay the unpaid taxes plus penalties. Unpaid taxes accrue interest at the rate of 1.5 percent per month from their due date until the date of sale. Taxpayers can redeem their property by paying the amount paid at the sale, plus an additional penalty fee calculated from the penalty bid at sale times a certain multiplier based on each six-month period after the sale. If no redemption is made within the applicable redemption period (ranging from six months to two and one-half years depending on the type and occupancy of the property) and the tax buyer files a petition in Circuit Court, notifying the necessary parties in accordance with applicable law, the tax buyer receives a deed to the property. In addition, there are miscellaneous statutory provisions for foreclosure of tax liens.

If there is no sale of the tax lien on a parcel of property at the Annual Tax Sale, the taxes are forfeited and eligible to be purchased at any time thereafter at an amount equal to all delinquent taxes, interest and certain other costs to the date of purchase. Redemption periods and procedures are the same as applicable to the Annual Tax Sale, except that a different penalty rate may apply depending on the length of the redemption period.

A scavenger sale (the "*Scavenger Sale*"), like the Annual Tax Sale, is a sale of unpaid taxes. A Scavenger Sale must be held, at a minimum, every two years on all property in which taxes are delinquent for two or more years. The sale price of the unpaid taxes is the amount bid at the Scavenger Sale, which may be less than the amount of the delinquent taxes. Redemption periods vary from six months to two and one-half years depending upon the type and occupancy of the property.

The annual appropriation ordinance of the City has a provision for an allowance for uncollectible taxes for debt service. The City reviews this provision annually to determine whether adjustments are appropriate. For tax year 2018, collectible in 2019, the allowance for uncollectible taxes is four percent of the estimated gross tax levy for debt service. For financial reporting purposes, uncollected taxes are written off by the City after four years, but are fully reserved after one year.

## Property Tax Limit Considerations

***State of Illinois.*** The Property Tax Code limits (a) the amount of property taxes that can be extended for non-home rule units of local government located in Cook County and five adjacent counties and (b) the ability of those entities to issue general obligation bonds without voter approval (collectively, the “*State Tax Cap*”). Generally, the extension of property taxes for a unit of local government subject to the State Tax Cap may increase in any year by five percent or the percent increase in the Consumer Price Index for the preceding year, whichever is less, or the amount approved by referendum. The State Tax Cap does not apply to “limited bonds” payable from a unit’s “debt service extension base” or to “double-barreled alternate bonds” issued pursuant to Section 15 of the Local Government Debt Reform Act.

As a home rule unit of government, the City is not subject to the State Tax Cap. Under the State Constitution, the enactment of legislation applying the State Tax Cap to the City and other home rule municipalities would require a law approved by the vote of three-fifths of the members of each house of the Illinois General Assembly and the concurrence of the Governor of the State. It is not possible to predict whether, or in what form, any property tax limitations applicable to the City would be enacted by the Illinois General Assembly. If the City were to become subject to a State-imposed property tax limitation restriction in the future similar to the State Tax Cap or any other restriction or freeze on property taxes, the City’s ability to levy property taxes in amounts needed for its future funding needs may be adversely affected.

As a home rule unit of government, the City is not limited as to the amount of debt it may issue payable from *ad valorem* property taxes. Under the State Constitution, the General Assembly may limit by law the amount and require referendum approval of such debt, but only to the extent such debt, in the aggregate, exceeds three percent of the assessed value of all taxable property in the City.

State law imposes certain notice and public hearing requirements on non-home rule units of local government that propose to issue general obligation debt. These requirements do not apply to the City.

***The City.*** In 1993, the City Council of the City adopted an ordinance (the “*Chicago Property Tax Limitation Ordinance*”) limiting, beginning in 1994, the City’s aggregate property tax levy to an amount equal to the prior year’s aggregate property tax levy (subject to certain adjustments) plus the lesser of (a) five percent or (b) the percentage increase in the annualized Consumer Price Index for all urban consumers for all items, as published by the United States Department of Labor, during the 12-month period most recently announced prior to the filing of the preliminary budget estimate report. The Chicago Property Tax Limitation Ordinance also provides that such limitation shall not reduce that portion of each levy attributable to the greater of: (i) for any levy year, interest and principal on general obligation notes and bonds of the City outstanding on January 1, 1994, to be paid from collections of the levy made for such levy year, or (ii) the amount of the aggregate interest and principal payments on the City’s general obligation bonds and notes during the 12-month period ended January 1, 1994, subject to annual increase in the manner described above for the aggregate levy (the “*Safe Harbor*”). Additional safe harbors are provided for portions of any levy attributable to payments under installment contracts or public building commission leases or attributable to payments due as a result of the refunding of general obligation bonds or notes or of such installment contracts or leases.

Pursuant to the Bond Ordinance, the taxes levied by the City for the payment of principal and interest on the 2019A Bonds are not subject to the limitations contained in the City Property Tax Limitation Ordinance.

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**APPENDIX E**  
**OPINIONS OF CO-BOND COUNSEL**

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April 10, 2019

City of Chicago  
City Hall  
121 North LaSalle Street  
Chicago, Illinois 60602

The Underwriters listed  
on **Exhibit A**

Amalgamated Bank of Chicago  
30 North LaSalle Street, 38<sup>th</sup> Floor  
Chicago, Illinois 60602

We have acted as co-bond counsel in connection with the issuance and delivery by the City of Chicago (the "City") of \$721,980,000 aggregate original principal amount of its General Obligation Bonds, Series 2019A (the "Series 2019A Bonds").

In that regard, we examined a certified copy of the record of proceedings of the City, together with various accompanying certificates, pertaining to the issuance of the Series 2019A Bonds. The record of proceedings includes an Ordinance, adopted by the City Council of the City on March 13, 2019, providing for the issuance of the Series 2019A Bonds (the "**Bond Ordinance**"), the Notification of Sale of the Chief Financial Officer of the City in connection with the sale of the Series 2019A Bonds provided for in the Bond Ordinance (the "**Notification of Sale**"), the Trust Indenture, dated as of April 1, 2019 (the "**Indenture**"), from the City to Amalgamated Bank of Chicago, Chicago, Illinois, as trustee (the "**Trustee**"), and certificates of officers of the City, the Trustee, and the Underwriters for the Series 2019A Bonds as to various factual matters.

The Series 2019A Bonds are "Current Interest Bonds" as defined in the Bond Ordinance, are dated the date of this opinion, mature on January 1 of each of the years 2027 to 2029, inclusive, and in the years 2031, 2035, 2039, 2040, 2044 and 2049, in the amounts for each year provided in the Notification of Sale and the Indenture, and will bear interest from their date, payable semiannually on January 1 and July 1 of each year commencing on July 1, 2019, at the interest rate for each maturity provided in the Notification of Sale and the Indenture.

The Series 2019A Bonds are subject to optional and mandatory sinking fund redemption in advance of their maturity upon the terms provided in the Notification of Sale and the Indenture.

Based upon this examination, we are of the opinion that:

1. The City has the right and power to adopt the Bond Ordinance. The Bond Ordinance has been duly and lawfully adopted by the City Council of the City, is in full force and effect, is valid and binding upon the City, and is enforceable in accordance with its terms.
2. The Indenture has been duly and lawfully executed and delivered by authorized officers of the City as authorized by the Bond Ordinance and, assuming due authorization, execution and delivery by the Trustee, represents a valid and binding agreement of the City enforceable in accordance with its terms.

3. The Series 2019A Bonds have been duly and validly authorized and issued in accordance with the Constitution and laws of the State of Illinois and the Bond Ordinance and are valid and legally binding general obligations of the City in accordance with their tenor and terms, payable from ad valorem taxes levied against all of the taxable property in the City without limitation as to rate or amount. The City has pledged its full faith and credit to the payment of the Series 2019A Bonds.

4. Interest on the Series 2019A Bonds under present law is excludable from the gross income of their owners for federal income tax purposes and thus is exempt from federal income taxes based on gross income. This opinion is subject to the accuracy of certain representations and compliance by the City with its covenant to comply with all requirements which must be met in order for interest on the Series 2019A Bonds not to be included in gross income for federal income tax purposes under present law. The City has the power to comply with its covenant. If the City were to fail to comply with these requirements, interest on the Series 2019A Bonds could be included in gross income for federal income tax purposes retroactive to the date the Series 2019A Bonds are issued. Interest on the Series 2019A Bonds is not an item of tax preference for calculation of an alternative minimum tax under present law. Ownership of the Series 2019A Bonds may result in other federal tax consequences or state or local tax consequences to certain taxpayers, and we express no opinion regarding any such collateral consequences arising with respect to the Series 2019A Bonds.

5. The interest on the Series 2019A Bonds is not exempt from present Illinois taxes. Ownership of the Series 2019A Bonds may result in other state and local tax consequences to certain taxpayers and we express no opinion with respect to any such state and local tax consequences with respect to the Series 2019A Bonds.

The rights of owners of the Series 2019A Bonds, the obligations of the City and the enforceability of the Series 2019A Bonds and the Indenture may be subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws affecting creditors' rights. Enforcement of provisions of the Series 2019A Bonds or the Indenture by equitable or similar remedies may be subject to general principles of law or equity governing such remedies, including the exercise of judicial discretion whether to grant any particular form of relief.

This opinion is based upon facts known or certified to us and laws in effect on its date and speaks as of that date. The opinions stated in this letter are expressions of professional judgment based upon such facts and law and are not a guaranty of a result if the validity or tax-exempt status of the Series 2019A Bonds are challenged. We have not undertaken any obligation to revise or supplement this opinion to reflect any facts or circumstances that may come to our attention after the date of this opinion or any changes in law that may occur after that date.

[Co-Bond Counsel]

Exhibit A

**The Underwriters**

Barclays  
745 Seventh Avenue, 19<sup>th</sup> Floor  
New York, New York 10019

North South Capital LLC  
200 W. Adams Street, Suite 2230  
Chicago, Illinois 60606

Cabrera Capital Markets, LLC  
10 S. LaSalle Street  
Suite 1050  
Chicago, Illinois 60603

Ramirez & Co., Inc.  
120 N. LaSalle Street  
Suite 1110  
Chicago, Illinois 60602

IFS Securities, Inc.  
444 West Lake Street  
Suite 1700  
Chicago, Illinois 60606

Rice Financial Products Company  
55 Broad Street  
27<sup>th</sup> Floor  
New York, New York 10004

Mischler Financial Group, Inc.  
One Stamford Landing  
Suite 104  
62 Southfield Avenue  
Stamford, Connecticut 06902

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**APPENDIX F**  
**BOOK-ENTRY ONLY SYSTEM**

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## APPENDIX F

### BOOK-ENTRY ONLY SYSTEM

#### **Introduction**

The information in this section concerning The Depository Trust Company, New York, New York (“DTC”), and DTC’s book-entry-only system has been provided by DTC for use in disclosure documents such as this Official Statement. Neither the City nor the Underwriters of the 2019A Bonds make any representation as to its accuracy or completeness.

DTC will act as the initial securities depository for the 2019A Bonds.

The information set forth below is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC currently in effect and the City expressly disclaims any responsibility to update this Official Statement to reflect any such changes. The information herein concerning DTC has been obtained from sources that the City believes to be reliable, but neither the City nor the Underwriters take any responsibility for the accuracy or completeness of the information set forth herein. Investors wishing to use the facilities of DTC are advised to confirm the continued applicability of the rules, regulations and procedures of DTC. The City will have no responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the 2019A Bonds held through the facilities of DTC or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

#### **DTC**

##### *DTC Book-Entry Only System*

The Depository Trust Company, New York, New York will act as securities depository for the 2019A Bonds. The 2019A Bonds will 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 2019A Bonds bearing interest at a specific interest rate, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world’s largest securities 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. 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 and 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](http://www.dtcc.com).

Purchases of the 2019A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2019A Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series 2019A 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 2019A 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 2019A Bonds, except in the event that use of the book-entry system for the 2019A Bonds is discontinued.

To facilitate subsequent transfers, all 2019A 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 the 2019A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2019A Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such 2019A 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 Participants 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 2019A Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the 2019A Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Indenture. For example, Beneficial Owners of 2019A Bonds may wish to ascertain that the nominee holding the 2019A 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 Trustee and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2019A Bonds are being redeemed, DTC’s practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the 2019A 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 Trustee 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 2019A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payment of redemption proceeds and principal and interest on the 2019A 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 Trustee on the payment date in accordance with their respective holdings shown on DTC's records. Payments by 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 Participant and not of DTC, the Trustee or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds and principal and interest 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 Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the 2019A Bonds at any time by giving reasonable notice to the City or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, Series 2019A 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, 2019A Bonds certificates will be printed and delivered to DTC.

THE CITY AND THE TRUSTEE CANNOT AND DO NOT GIVE ANY ASSURANCES THAT DTC, DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL DISTRIBUTE TO THE BENEFICIAL OWNERS OF THE 2019A BONDS: (1) PAYMENTS OF PRINCIPAL OR REDEMPTION PRICE OF OR INTEREST ON THE 2019A BONDS; (2) CONFIRMATIONS OF THEIR OWNERSHIP INTERESTS IN THE 2019A BONDS; OR (3) OTHER NOTICES SENT TO DTC OR CEDE & CO., ITS PARTNERSHIP NOMINEE, AS THE REGISTERED OWNER OF THE 2019A BONDS, OR THAT THEY WILL DO SO ON A TIMELY BASIS, OR THAT DTC OR DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL SERVE AND ACT IN THE MANNER DESCRIBED IN THIS OFFICIAL STATEMENT.

THE CITY AND THE TRUSTEE WILL NOT HAVE ANY RESPONSIBILITY OR OBLIGATIONS TO DTC, DIRECT PARTICIPANTS, INDIRECT PARTICIPANTS OR THE BENEFICIAL OWNERS WITH RESPECT TO (1) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS; (2) THE PAYMENT BY DTC OR ANY DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS OF ANY AMOUNT DUE TO ANY BENEFICIAL OWNER IN RESPECT OF THE PRINCIPAL AMOUNT OR REDEMPTION PRICE OF OR INTEREST ON THE 2019A BONDS; (3) THE DELIVERY BY DTC, ANY DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS OF ANY NOTICE TO ANY BENEFICIAL OWNER THAT IS REQUIRED OR PERMITTED TO BE GIVEN TO OWNERS UNDER THE TERMS OF THE INDENTURE; OR (4) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE REGISTERED HOLDER OF THE 2019A BONDS.

Transfers between participants will occur in accordance with DTC rules.

The City will not impose any fees in respect of holding the 2019A Bonds; however, holders of book-entry interests in the 2019A Bonds may incur fees normally payable in respect of the maintenance and operation of accounts in DTC.

*Initial Settlement*

Interests in the 2019A Bonds will be in uncertified book-entry form. DTC participants acting on behalf of purchasers electing to hold book-entry interests in the 2019A Bonds through DTC will follow the delivery practices applicable to securities eligible for DTC's Same Day Funds Settlement system. DTC participants' securities accounts will be credited with book-entry interests in the 2019A Bonds following confirmation of receipt of payment to the City on the date of delivery of the 2019A Bonds.

*Secondary Market Trading*

Secondary market trades in the 2019A Bonds will be settled by transfer of title to book-entry interests in DTC. Title to such book-entry interests will pass by registration of the transfer within the records of DTC in accordance with DTC's procedures. Book-entry interests in the 2019A Bonds may be transferred within DTC in accordance with procedures established for this purpose by DTC.

