City of Chicago

Office of the City Clerk

Document Tracking Sheet

F2020-6

Meeting Date:	2/19/2020
Sponsor(s):	Dept./Agency
Type:	Communication
Title:	Notification of sale of General Obligation Bonds, Refunding Series 2020A
Committee(s) Assignment:	

DEPARTMENT OF FINANCE

CITY OF CHICAGO

2020 JAN 30 PM 12: 13
OFFICE OF THE CITY CLERK
RECEIVED #1

January 30, 2020

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

RE: City of Chicago $466,495,000 General Obligation Bonds, Refunding Series 2020A (the "Bonds")

Dear Ms. Valencia,

Attached is the Notification of Sale to the City Council certificate which is required to be filed with your office pursuant to Part B, Article III, Section 3.1(h) of the ordinance adopted by the City Council of the City of Chicago (the "City Council") on November 26, 2019. Executed copies of the Bond Purchase Agreement, the Office Statement and the Trust Indenture for the Bonds are also included.

Please direct this filing to the City Council.

Very truly yours,

JHG Bennett

Jennie Huang Bennett
Chief Financial Officer

Enclosures

RECEIVED #1
2020 JAN 30 PM12: 13
OFFICE OF THE CITY CLERK

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

NOTIFICATION OF SALE

CITY OF CHICAGO
$466,495,000
General Obligation Bonds, Refunding Series 2020A

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 November 26, 2019, authorizing the issuance of up to $1,500,000,000 aggregate principal amount of general obligation bonds of the City a Bond Purchase Agreement dated January 16, 2020 (the "*Bond Purchase Agreement*"), providing for the sale of $466,495,000 aggregate principal amount of General Obligation Bonds, Refunding Series 2020A (the "*Bonds*"), was entered into by me as the Chief Financial Officer of the City, with the concurrence of the 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 January 1, 2020 (the "*Indenture*"), by and between the City and Zions Bancorporation, National Association, Chicago, Illinois, as Trustee, Bond Registrar and Paying Agent for the Bonds (the "*Trustee*").

The Bonds were sold at a purchase price equal to $552,570,831.28 (which represents the aggregate principal amount of the Bonds less an Underwriters' discount of $3,341,729.97 plus original issue premium of $89,417,561.25). The Underwriters for the Bonds are J.P. Morgan Securities LLC, Cabrera Capital Markets LLC, Goldman Sachs & Co. LLC, Sibert Williams Shank & Co., LLC, RBC Capital Markets, Stifel Nicolas & Co., BofA Securities, Inc., Estrada Hinojsa & Company, Harvestons Securities, Inc., Loop Capital Markets, LLC, Melvin Securities, LLC and Rice Financial Products Company. The compensation (including all fees) of $3,341,729.97 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 Bonds will be used to (i) refund all of the City's outstanding General Obligation Bonds, Series 2007G (Modern Schools Across Chicago Program); (ii) refund all of the City's outstanding General Obligation Bonds, Series 2007K (Modern Schools Across Chicago Program): (iii) refund all of the of the City's outstanding General Obligation Bonds, Project and Refunding Series 2007A; (iv) refund $237,740,000 of the City's outstanding General

Obligation Bonds, Refunding Series, 2009A; (v) fund certain capitalized interest on the Bonds; and (iv) pay costs of issuance of the Bonds.

Attached hereto as Exhibits 1 through 3, respectively, are executed copies of the Bond Purchase Agreement, the Official Statement dated January 16, 2020 and the Indenture pursuant to which, the Bonds are being issued.

Pursuant to Part B, Article III, Section 3.1(h) of the Ordinance, the undersigned hereby makes the following determinations: (i) (a) the series designation of the Bonds are set forth in the first paragraph hereof; (b) the aggregate principal amount of the Bonds is $466,495,000, (c) the Bonds are issued in denominations of $5,000 or any integral multiple thereof, and (c) the Bonds mature and are subject to redemption as set forth in Schedule I attached hereto; (ii) the principal amounts on the Bonds are set forth in Schedule I attached hereto; (iii) the interest rates on the Bonds are set forth in Schedule I attached hereto, (iv) the specific maturities, series and amounts of the Refunded Bonds to be refunded with proceeds of Bonds are set forth in Schedule II attached hereto; (v) the date on and price at which the Refunded Bonds shall be redeemed is set forth in Schedule II attached hereto; (vi) no bond insurance policies are being issued in connection with the issuance of the Bonds; (vii)) the Underwriters of the Bonds are as set forth above in the second paragraph hereof; (viii) the Trustee identified in the first paragraph hereof shall serve as Bond Registrar and Paying Agent;; (ix) the compensation paid to the Underwriters in connection with the sale of the Bonds is set forth in the second paragraph hereof; (ix) the Bonds are issued in book-entry form; the book entry depository is The Depository Trust Company, (x) 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; and (xi) provisions relating to the transfer or exchange of Bonds are set forth in the Indenture.

IN WITNESS WHEREOF, I have set my hand this 30th day of January 2020.

CITY OF CHICAGO

By: ____________________________
Jennie Huang Bennett
Chief Financial Officer

EXHIBIT 1

BOND PURCHASE AGREEMENT

EXHIBIT 2

OFFICIAL STATEMENT DATED JANUARY 16, 2020

EXHIBIT 3

TRUST INDENTURE

SCHEDULE I

TERMS OF BONDS

1. Aggregate Principal Amount: $466,495,000
2. Date of Issuance (Expected to be January 30, 2020)
3. Maturities, Principal Amounts, Interest Rates, Prices and CUSIP Numbers:

$466,495,000
City of Chicago
General Obligation Bonds, Refunding Series 2020A

Maturity (January 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP
2021	$3,345,000	5.00%	1.51%	103.173%	167486E47
2021	700,000	3.00	1.51	101.354	167486E54
2022	3,460,000	5.00	1.62	106.361	167486E62
2022	710,000	3.00	1.62	102.596	167486E70
2023	3,635,000	5.00	1.73	109.269	167486E88
2023	730,000	3.00	1.73	103.599	167486E96
2024	3,040,000	5.00	1.85	111.854	167486F38
2024	850,000	3.00	1.85	104.327	167486F20
2025	40,600,000	5.00	1.98	114.088	167486F46
2025	195,000	3.00	1.98	104.757	167486F53
2026	51,225,000	5.00	2.10	116.061	167486F79
2026	195,000	3.00	2.10	104.984	167486F61
2027	83,920,000	5.00	2.17	118.090	167486F87
2028	77,800,000	5.00	2.24	119.924	167486G29
2029	91,925,000	5.00	2.31	121.568	167486G37
2030	84,165,000	5.00	2.38	123.025	167486G45
2031	15,760,000	5.00	2.45	122.332*	167486G52
2032	4,240,000	5.00	2.49	121.939*	167486G60

* Priced to call January 1, 2030.

Redemption. The 2020A Bonds are subject to both optional redemption prior to maturity, as described below. The 2020A Bonds shall be redeemed only in principal amounts of $5,000 and integral multiples thereof ("Authorized Denominations"). The Bonds are not subject to mandatory redemption.

Optional Redemption of 2020A Bonds.
The 2020A 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, 2030, and if less than all of the outstanding Bonds of a single maturity are to be redeemed, the 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 Bonds being redeemed plus accrues interest to the date fixed for redemption.

Schedule II

Payment of Outstanding Indebtedness

$14,250,000 General Obligation Bonds, Series 2007G (Modern Schools Across Chicago Program)

Principal Amount:	$14,250,000
Interest Rate:	5.00%
Maturity Date:	December 1, 2024

$3,435,000 General Obligation Bonds, Series 2007K (Modern Schools Across Chicago Program)

Principal Amount:	$3,435,000
Interest Rate:	4.25%
Maturity Date:	December 1, 2026

$229,295,000 General Obligation Bonds, Project and Refunding Series 2007A

Maturity (January 1)	Principal Amount	Interest Rate
2026	$20,475,000	5.00%
2026	6,265,000	4.25
2027	38,430,000	5.00
2029	55,775,000	5.00
2032	15,680,000	5.00
2033	9,435,000	5.00
2037	83,235,000	5.00

$237,740,000 General Obligation Bonds, Refunding Series 2009A

Maturity (January 1)	Principal Amount	Interest Rate
2024	$ 6,640,000	5.00%
2025	14,390,000	5.00
2025	17,935,000	5.00
2026	4,750,000	5.00
2026	53,805,000	5.00
2027	1,290,000	4.25
2027	60,135,000	5.00
2028	64,545,000	5.00
2029	14,250,000	5.00

NOTIFICATION OF SALE AND BOND ORDINANCE

The foregoing Notification of Sale relating to $466,495,000 aggregate principal amount of General Obligation Bonds, Refunding Series 2020A of the City of Chicago (the "*City*") and the Ordinance adopted by the City Council of the City on November 26, 2019, authorizing the issuance of up to $1,500,000,000 aggregate principal amount of general obligation bonds of the City have been filed in my office as City Clerk of the City and are 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 30th day of January, 2020.

Andrea M. Valencia

Andrea M. Valencia
City Clerk

[SEAL]

Signature Page to Acknowledgement of
Filing Notification of Sale

TRUST INDENTURE

by and between

CITY OF CHICAGO

and

ZIONS BANCORPORATION, NATIONAL ASSOCIATION,
as Trustee

SECURING CITY OF CHICAGO
GENERAL OBLIGATION BONDS, REFUNDING SERIES 2020A

Dated as of January 1, 2020

TABLE OF CONTENTS

(This Table of Contents is not a part of the Indenture
and is only for convenience of reference)

TRUST INDENTURE

THIS TRUST INDENTURE, made and entered into as of January 1, 2020 (this "*Indenture*"), by and between 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, and ZIONS BANCORPORATION, NATIONAL ASSOCIATION (the "*Trustee*"), a national banking association 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 November 26, 2019 (the "*Bond Ordinance*") the City duly authorized the issuance and sale of its General Obligation Bonds, Refunding Series 2020A (the "*Bonds*") in order to provide the funds, together with other available funds, for the purposes of (i) funding the payment, at or prior to maturity, of the principal of, interest on, and redemption premium, if any, of certain Outstanding City Bonds, as defined in the Bond Ordinance (collectively, the "*Refunded Bonds*"); (ii) paying costs of issuance, including underwriters discount, (iii) funding certain capitalized interest on the Bonds, and (iv) paying for certain credit enhancements (including, but not limited to, premiums for the purchase of policies of municipal bond insurance with respect to 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 subject to application thereof in accordance with such terms, 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.

"*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, Refunding Series 2020A issued pursuant to Section 2.01.

"*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.

"*Capitalized Interest Account*" means the account of that name established within the Bond Fund, as described in Section 4.03.

"*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 of the City.

"*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*" means 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 January 30, 2020, 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: Federal Home Loan Mortgage Corp. debt obligations, Farm Credit System debt obligations, Federal Home Loan Banks debt obligations, Fannie Mae debt obligations, Financing Corp. debt obligations, Resolution Funding Corp. debt obligations, and U.S. Agency for International Development 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:*
>
> Zions Bancorporation, National Association,
> Corporate Trust Services, Zions Bank Division
> 111 West Washington Street, Suite 1860
> 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.

"*Expense Fund*" means the fund of that name established and described in Section 4.04 hereof.

"*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, 2020.

"*Issuance Costs*" means the expenses and costs of the City with respect to the authorization, sale and delivery of the Bonds and the refunding of the Refunded Bonds.

"*Kroll*" means Kroll Bond Rating Agency, Inc. 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.

"*Lawrence/Kedzie TIF Account*" means the account of that name established within the Bond Fund, as described in Section 4.03.

"*Lawrence/Kedzie TIF Bonds*" means the $13,480,000 aggregate principal amount of the Bonds more particularly described as follows:

Maturity (January 1)	Principal Amount	Interest Rate	CUSIP Number
2021	$3,345,000	5.00%	167486 E47
2022	3,460,000	5.00	167486 E62
2023	3,635,000	5.00	167486 E88
2024	3,040,000	5.00	167486 F38

"*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 2.2(a) of Part B 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.

"*Outstanding City Bonds*" has the meaning ascribed thereto in the Bond Ordinance.

"*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.

"*Principal and Interest Account Requirement*" means an amount, equal to the total principal installment and interest due on the Bonds as of each January 1 and July 1, which amount shall be on deposit in the Principal and Interest Account not later than the Deposit Date for such Interest Payment Date.

"*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).

"*Refunded Bonds*" means the following Outstanding City Bonds:

$14,250,000 General Obligation Bonds, Series 2007G
(Modern Schools Across Chicago Program)

Principal Amount:	$14,250,000
Interest Rate:	5.00%
Maturity Date:	December 1, 2024

$3,435,000 General Obligation Bonds, Series 2007K
(Modern Schools Across Chicago Program)

Principal Amount:	$3,435,000
Interest Rate:	4.25%
Maturity Date:	December 1, 2026

$229,295,000 General Obligation Bonds, Project and Refunding Series 2007A

Maturity (January 1)	Principal Amount	Interest Rate
2026	$20,475,000	5.00%
2026	6,265,000	4.25
2027	38,430,000	5.00
2029	55,775,000	5.00
2032	15,680,000	5.00
2033	9,435,000	5.00
2037	83,235,000	5.00

$237,740,000 General Obligation Bonds, Refunding Series 2009A

Maturity (January 1)	Principal Amount	Interest Rate
2024	$ 6,640,000	5.00%
2025	14,390,000	5.00
2025	17,935,000	5.00
2026	4,750,000	5.00
2026	53,805,000	5.00
2027	1,290,000	4.25
2027	60,135,000	5.00
2028	64,545,000	5.00
2029	14,250,000	5.00

"*Refunding Purposes*" means the refunding of the Refunded Bonds.

"*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.

"*Touhy/Western TIF Account*" means the account of that name established within the Bond Fund, as described in Section 4.03.

"*Touhy/Western TIF Bonds*" means the $3,380,000 aggregate principal amount of the Bonds more particularly described as follows:

Maturity (January 1)	Principal Amount	Interest Rate	CUSIP Number
2021	$700,000	3.00%	167486 E54
2022	710,000	3.00	167486 E70
2023	730,000	3.00	167486 E96
2024	850,000	3.00	167486 F20
2025	195,000	3.00	167486 F53
2026	195,000	3.00	167486 F61

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

"*Trustee*" means Zions Bancorporation, National Association, Chicago, Illinois, a national banking association 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, the total principal amount of Bonds that may be issued hereunder is expressly limited to $466,495,000.

Section 2.02. General Terms of Bonds. (a) The Bonds shall constitute a single series in the aggregate principal amount of $466,495,000, and be designated "City of Chicago General Obligation Bonds, Refunding Series 2020A" 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, 2020. 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, 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 (JANUARY 1)	PRINCIPAL AMOUNT	INTEREST RATE
2021	$ 3,345,000	5.00%
2021	700,000	3.00
2022	3,460,000	5.00
2022	710,000	3.00
2023	3,635,000	5.00
2023	730,000	3.00
2024	3,040,000	5.00
2024	850,000	3.00
2025	40,600,000	5.00
2025	195,000	3.00
2026	51,225,000	5.00
2026	195,000	3.00
2027	83,920,000	5.00
2028	77,800,000	5.00
2029	91,925,000	5.00
2030	84,165,000	5.00
2031	15,760,000	5.00
2032	4,240,000	5.00

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) a copy, duly certified by the City Clerk, of the Bond Ordinance;

(2) an original executed counterpart 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 paragraph (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 paragraph (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 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) of this paragraph, 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) of this Section, 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. Optional Redemption. The Bonds maturing on or after January 1, 2031 shall be subject to redemption prior to their Maturity Date at the option of the City, on any date occurring on or after January 1, 2030, 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.

No redemption of less than all of the Bonds Outstanding shall be made 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.

Bonds may be called for redemption by the Trustee 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 a written request of the City requesting such redemption.

In lieu of redeeming Bonds, 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.

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) 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 having the same Maturity Date and interest rate 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; 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 $552,570,831.28 proceeds of the sale of the Bonds, consisting of the principal amount of the Bonds plus original issue premium of $89,417,561.25 and less an underwriters' discount of $3,341,729.97, shall be applied simultaneously with their delivery as follows:

(i) Deposit to Expense Fund: $976,133.82

(ii) Application for the Refunding Purposes: $487,674,049.82

(iii) Deposit to Capitalized Interest Account: $63,920,647.64

Section 4.03. Creation of Bond Fund and Accounts within the Bond Fund. (a) There is established with the Trustee a trust fund designated "City of Chicago General Obligation Bonds, Refunding Series 2020A Bond Fund."

(i) At each such time as is required under this Indenture, the City shall cause to be deposited 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 Principal and Interest Account of the Bond Fund shall be applied by the Trustee to pay the principal of 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 2020A 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.

(c) *Creation of Capitalized Interest Account.* There is established with the Trustee an account within the Bond Fund, designated as the "Series 2020A Capitalized Interest Account" (the "*Capitalized Interest Account*"). Moneys on deposit in the Capitalized Interest Account, and the interest earnings thereon, shall be applied to pay interest due on the Bonds (other than the Lawrence/Kedzie TIF Bonds and the Touhy/Western TIF Bonds) on each of the Interest Payment Dates occurring on and before January 1, 2023. On each of the applicable Deposit Dates for each of the following Interest Payment Dates, the Trustee shall withdraw from the Capitalized Interest Account and deposit into the Principal and Interest Account the amount set opposite such Interest Payment Date in the following table:

Interest Payment Date	Amount
July 1, 2020	$ 9,429,845.14
January 1, 2021	11,240,875.00
July 1, 2021	11,240,875.00
January 1, 2022	11,240,875.00
July 1, 2022	11,240,875.00
January 1, 2023	11,240,875.00

On January 2, 2023, the Trustee shall withdraw from the Capitalized Interest Account and deposit into the Principal and Interest Account any amount then held in the Capitalized Interest Account and the Capitalized Interest Account shall be closed.

(d) *Creation of Lawrence/Kedzie TIF Account.* There is established with the Trustee an account within the Bond Fund designated as the "Series 2020A Lawrence/Kedzie TIF Account" (the "*Lawrence/Kedzie TIF Account*"). From time to time the City may pay to the Trustee for deposit into the Lawrence/Kedzie TIF Account moneys withdrawn from the Lawrence/Kedzie Redevelopment Project Area Special Tax Allocation Fund. The City shall provide notice to the Trustee of the respective amounts of such withdrawal and deposit. With respect to each Interest Payment Date, on or prior to the applicable Deposit Date for such Interest Payment Date, the Trustee shall withdraw from funds, if available, in the Lawrence/Kedzie TIF Account, and deposit in the Principal and Interest Account on such Deposit Date amounts for application to, but not in excess of, the payment of the principal installment (if any) and the interest payable on such Interest Payment Date on the Lawrence/Kedzie TIF Bonds.

(e) *Creation of Touhy/Western TIF Account.* There is established with the Trustee an account within the Bond Fund designated as the "Series 2020A Touhy/Western TIF Account" (the "*Touhy/Western TIF Account*"). From time to time the City may pay to the Trustee for deposit into the Touhy/Western TIF Account moneys withdrawn from the Touhy/Western Redevelopment Project Area Special Tax Allocation Fund. The City shall provide notice to the Trustee of the respective amounts of such withdrawal and deposit. With respect to each Interest Payment Date on or prior to the applicable Deposit Date for such Interest Payment Date, Trustee shall withdraw from funds, if available in the Touhy/Western Redevelopment Account and deposited in the Principal and Interest Account on such Deposit Date amounts for application to, but not in excess of, the payment of the principal installment (if any) and the interest payable on such Interest Payment Date on the Touhy/Western TIF Bonds.

Section 4.04. Expense Fund. There is established with the Trustee a trust fund designated "City of Chicago General Obligation Bonds, Refunding Series 2020A Expense Fund" to be held and applied in accordance with the terms and provisions of this Indenture. Moneys on deposit in the Expense 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 Issuance Costs 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 Expense Fund, 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 into the Principal and Interest Account and upon such deposit the Expense Fund shall be closed.

Section 4.05. Refunding Purposes. The amount of the proceeds of sale of the Bonds to be applied for the Refunding Purposes as set forth in clause (ii) of Section 4.02 shall be applied by the Trustee as soon as possible on the Date of Issuance as follows:

(a) The amount of $248,516,068.40 shall be paid to Zions Bancorporation, National Association, as Escrow Agent under the General Obligation Bonds, Project and Refunding Series 2007A; and General Obligation Bonds, Series 2007G and 2007K (Modern Schools Across Chicago Program) Escrow Agreement dated as of January 1, 2020 by and between such Escrow Agent and the City for deposit into the Escrow Account established under such Escrow Agreement.

(b) The amount of $239,157,981.42 shall be paid to Amalgamated Bank of Chicago, as Escrow Agent under the General Obligation Escrow Deposit Agreement dated as of January 30, 2020 by and between such Escrow Agent and the City for deposit into the 2009A GO Proceeds Escrow Account established under such Escrow Agreement.

Section 4.06. Deposits into Bond Fund and Accounts Therein. Not later than the Deposit Date, there shall be on deposit in the Principal and Interest Account of 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 (exclusive of proceeds applied to other funds or purposes pursuant to Section 4.02 hereof) 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 4.07. 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 4.08. 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 4.09. 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, 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 in the Expense 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 Issuance Costs 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 Expense 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 Expense Fund. 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 (x) shall have been made or caused to have been made in accordance with the terms thereof, or (y) 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. 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 this Article VI.

(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, 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, 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 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) with respect to 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:	Kroll Bond Rating Agency, Inc. 845 Third Avenue Fourth Floor New York, NY 10022
If to S&P:	S&P Global Ratings 130 East Randolph, 36th 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 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 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 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: JH Bennett
Jennie Huang Bennett
Chief Financial Officer

[SEAL]

Attest:

By: Andrea M. Valencia
Andrea M. Valencia
City Clerk

ZIONS BANCORPORATION, NATIONAL ASSOCIATION, 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: ______________________________
Jennie Huang Bennett
Chief Financial Officer

[SEAL]

Attest:

By: ______________________________
Andrea M. Valencia
City Clerk

ZIONS BANCORPORATION, NATIONAL ASSOCIATION, as Trustee

By: ______________________________
Name: DARYL POMYKALA
Authorized Signatory, ZION BANK DIV.

[Signature Page – Trust Indenture]

EXHIBIT A

FORM OF BOND

REGISTERED
No. R-______ $_______________

UNITED STATES OF AMERICA

STATE OF ILLINOIS

CITY OF CHICAGO

GENERAL OBLIGATION BOND
REFUNDING SERIES 2020A

Interest Rate: ____%	Maturity Date: January 1, 20__	Dated Date: __________, 2020	CUSIP: 167486 ___

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, 2020, 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 Zions Bancorporation, National Association, Chicago, Illinois, as bond trustee, bond registrar and paying agent (the "*Trustee*"). 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 Trustee 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 Trustee 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 Trustee 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 Trustee.

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 $466,495,000, authorized to be issued pursuant to the constitutional home rule powers of the City and an ordinance adopted by the City Council of the City on November 26, 2019 (the "*Bond Ordinance*") and issued and secured under the Trust Indenture dated as of January 1, 2020 (the "*Indenture*") by and between the City and the Trustee for the purposes of (i) paying costs of the Financing Plan described in the Bond Ordinance, (ii) paying costs of issuance, including underwriters discount, and (iii) funding capitalized interest on certain of 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, 2030, 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.

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 Trustee 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.

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 Trustee or at such other address as is furnished in writing by such Registered Owner to the Trustee; *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 Trustee 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 Trustee 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 Trustee 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 Trustee 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 Trustee shall be affected by any notice to the contrary.

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: ___________, 2020

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, Refunding Series 2020A, of the City of Chicago.

Zions Bancorporation, National Association,
as Trustee

By: (Manual Signature) ____________
Authorized Officer

(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.

BOND PURCHASE AGREEMENT

$466,495,000
CITY OF CHICAGO
General Obligation Bonds
Refunding Series 2020A

January 16, 2020

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

Ladies and Gentlemen:

The undersigned, J.P. Morgan Securities LLC (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 $466,495,000 of the City's General Obligation Bonds, Refunding Series 2020A (the "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 8:00 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 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.

(A) Upon the terms and conditions and based upon the representations, warranties and covenants herein set forth, 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 Bonds at a price equal to $552,570,831.28 (which represents the aggregate principal amount of the

Bonds less an Underwriters' discount of $3,341,729.97 and plus an original issue premium of $89,417,561.25). The Bonds shall have the dated date, maturity dates and optional 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 Bonds.

(B) It shall be a condition to the City's obligation to sell and deliver the Bonds that all the Bonds be purchased and paid for by the Underwriters at the Closing (as defined in Section 8 hereof) and a condition to the Underwriters' obligation to purchase and pay for the Bonds that all Bonds be issued, sold and delivered by the City at the Closing. The Representative confirms that the Underwriters have offered the Bonds to the public at a public offering on or before the date of this Agreement at the initial offering price or prices set forth under "Terms of Bonds" contained in Schedule I.

2. Bond Authorization. The Bonds are authorized by an ordinance of the City adopted by the City Council of the City (the "City Council") on November 26, 2019 (the "Ordinance"), and the Bonds will be issued pursuant to and secured by a Trust Indenture dated as of January 1, 2020 (the "Trust Indenture"), between the City and Zions Bancorporation, National Association, as trustee for the Bonds (the "Trustee"). The 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 December 23, 2019, relating to the Bonds (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 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 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 Bonds.

5. Establishment of Issue Price.

(A) The Representative, on behalf of the Underwriters, agrees to assist the City in establishing the issue price of the 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 B, 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 9 hereof), to accurately reflect, as applicable, the sales price or prices or the initial offering price or prices to the public of the Bonds.

The Underwriters agree to make a bona fide public offering of the Bonds at the initial offering price or prices set forth under "Terms of Bonds" contained in Schedule I.

(B) Except as otherwise set forth in Exhibit B, the City will treat the first price at which 10% of each maturity of the 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 Bonds with the same credit and payment terms. If at that time the 10% test has not been satisfied as to any maturity of the Bonds, the Representative agrees to promptly report to the City the prices at which Bonds of that maturity have been sold by the Underwriters to the public. That reporting obligation shall continue, whether or not the Closing has occurred, until the 10% test has been satisfied as to the Bonds of that maturity or until all Bonds of that maturity have been sold to the public.

The Representative confirms that the Underwriters have offered the 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 B attached hereto, except as otherwise set forth therein. Exhibit B also sets forth, as of the date of this Agreement, the maturities, if any, of the 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 Bonds, the Underwriters will neither offer nor sell unsold 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:

(i) the close of the fifth (5^{th}) business day after the sale date; or

(ii) the date on which the Underwriters have sold at least 10% of that maturity of the 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.

(C) The Representative shall promptly advise the City when the Underwriters have sold 10% of that maturity of the 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, if that occurs prior to the close of the fifth (5th) business day after the sale date.

(D) 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 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 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 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 Bonds to the public, the agreement of each broker-dealer that is a party to such agreement to comply the requirements for establishing issue price of the 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 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 Bonds, including, but not limited to, its agreement to comply with the hold-the-offering-price rule as applicable to the Bonds.

(E) The Representative confirms that:

(i) any agreement among underwriters, any selling group agreement and each retail distribution agreement (to which the Representative is a party) relating to the initial sale of the 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) report the prices at which it sells to the public the unsold 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 Bonds of that maturity with the same credit and payment terms or all Bonds of that maturity with the same credit and payment terms have been sold to the public, (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, (c) promptly notify the Representative of any sales of the 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 Bonds (each such term as defined below), and (d) 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 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 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 Bonds of each maturity with the same credit and payment terms allotted to it until it is notified by the Representative or the Underwriter that either the 10% test has been satisfied as to the Bonds of that maturity with the same credit and payment terms or all 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 or the Underwriter and as set forth in the related pricing wires.

(F) The Underwriters acknowledge that sales of any Bonds to any person that is a related party to an Underwriter 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 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 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 Bonds to the public),

(iii) a purchaser of any of the Bonds is a "related party" to an underwriter if the underwriter and the purchaser are subject, directly or indirectly, to (i) at least 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) more than 50% 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.

6. The Official Statement.

(A) 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 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").

(B) 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 Ordinance or the Bonds, shall occur which would cause the Official Statement to contain any untrue statement of a material fact or to omit a material fact necessary to make the statements made therein, in light of the circumstances under which they were made, not misleading, 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 the Closing or the date on which an Underwriter no longer retains an unsold balance of the 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 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 Bonds, but in no event shall the end of the underwriting period be extended longer than sixty (60) days after the date of the 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 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.

(C) 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.

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

(A) 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").

(B) The City Council has: (i) duly adopted the Ordinance, which remains in full force and effect; (ii) duly authorized and approved the execution and delivery of the Trust Indenture; (iii) duly authorized and approved the use of the Preliminary Official Statement prior to the date hereof in connection with the public offering and sale of the Bonds and duly authorized and approved the execution, delivery and distribution of the Official Statement in connection with the public offering and sale of the Bonds; and (iv) duly authorized and approved the execution and delivery of the Bonds, the escrow agreements to be executed and delivered by the City (collectively, the "Escrow Agreements") in connection with the refunding of the general obligation bonds of the City and the payment of interest as identified in Appendix G to the Official Statement (collectively, the "Refunded Bonds"), this Agreement and a continuing disclosure undertaking pursuant to the provisions of Section (b)(5) of Rule 15c2-12 (the "Undertaking").

(C) 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.

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

(E) The adoption of the Ordinance and compliance with the provisions thereof do not, and the execution and delivery of this Agreement, the Trust Indenture, the Escrow Agreements, the Undertaking and the Official Statement 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.

(F) 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 Ordinance, the Trust Indenture, the Escrow Agreements and the Bonds have been obtained or made.

(G) The financial statements of the City contained in the Preliminary Official Statement and 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.

(H) 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, in each case, any description of The Depository Trust Company ("DTC"), information under the captions "RATINGS," "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), APPENDIX E – "OPINIONS OF CO-BOND COUNSEL," APPENDIX F – "BOOK-ENTRY ONLY SYSTEM," and information furnished by the Underwriters in writing, explicitly for inclusion in the Preliminary Official Statement under the heading "UNDERWRITING") as of its date, and the Official Statement (excluding, in each case, any description of The Depository Trust Company ("DTC"), information under the captions "RATINGS," "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 in the Official Statement under the heading "UNDERWRITING") or information designated as preliminary or permitted to be omitted from the Preliminary Official Statement pursuant to Rule 15c2-12) as of its date, does not, and, with respect to the Official Statement, as of the date of the Closing will not, 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.

(I) Information in the Third-Party Sourced Retirement Fund Tables (as defined in the Preliminary Official Statement and the Official Statement) is sourced from documents published by the Retirement Funds, and the City takes no responsibility for the accuracy and completeness of such information; however, nothing has come to the attention of the City which would lead the City to believe that the Third-Party Sourced Retirement Fund Tables are not true and correct in all material respects.

(J) The Ordinance, the Trust Indenture, the Escrow Agreements, 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).

(K) When delivered to the Representative, and paid for by the Underwriters at the Closing in accordance with the provisions of this Agreement, the 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).

(L) Except as disclosed in the Preliminary Official Statement as of its date and 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 Bonds, the Ordinance, the Trust Indenture, the Escrow Agreements, this Agreement, or the Undertaking or (ii) the excludability from federal income taxation of the interest on the Bonds under the Internal Revenue Code of 1986, as amended (the "Code").

(M) 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 Bonds under the Code.

(N) 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 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.

(O) 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 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.

(P) The City will apply the proceeds of the Bonds in accordance with the Ordinance and the Trust Indenture.

(Q) 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, account, tax, financial and other advisors, as applicable, to the extent it has deemed appropriate. The City agrees that it will not claim that the Underwriters have rendered advisory services of any nature or respect, or owe a fiduciary or similar duty to the City, in connection with such transaction or the process leading thereto.

8. Closing. Subject to the conditions set forth in this Agreement, the closing (the "Closing") of the sale of the Bonds by the City and the purchase of the Bonds by the Underwriters, shall take place at approximately 9:00 a.m., Chicago time, on January 30, 2020, at the offices of Katten Muchin Rosenman LLP, 525 West Monroe Street, Chicago, Illinois 60661 (or at such other time, date and place as the City and the Representative mutually agree).

(A) 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 Bonds in the aggregate principal amount thereof, registered in the name of Cede & Co., as nominee for DTC.

(B) Upon delivery of the Bonds to the Representative at the Closing, the City will deliver to the Representative the closing documents as set forth in Section 11 hereof.

(C) The Representative will accept delivery of the 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 Bonds pursuant to Section 1 hereof.

9. 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 Ordinance, the Trust Indenture, the Escrow Agreements, the Undertaking, and this Agreement shall be in full force and effect and the 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 6 hereof, and the City shall have duly adopted and there shall be in full force and effect such ordinances as, in the opinion of Katten Muchin Rosenman LLP, Chicago, Illinois, and Reyes Kurson, Ltd., Chicago, Illinois, as co-bond counsel ("Co-Bond Counsel") shall be necessary in connection with the transactions contemplated hereby and thereby.

10. Termination of Agreement.

(A) The Underwriters shall have the right to cancel their obligations to purchase the 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 Bonds which, in the Representative's reasonable opinion, does materially adversely affect the market price or marketability of the Bonds or the ability of the Underwriters to enforce contracts for the sale, at the contemplated offering prices (or yields), of the 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 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 Bonds to be registered under the Securities Act of 1933, as amended, or the enactment of the Ordinance or any ordinance of similar character is in violation of the Trust Indenture Act of 1939, as amended, or with the purpose or effect of otherwise prohibiting the issuance, sale or delivery of the Bonds as contemplated hereby or by the Official Statement or of obligations of the general character of the Bonds which, in the Representative's reasonable opinion, does materially adversely affect the market price or marketability of the Bonds or the ability of the Underwriters to enforce contracts for the sale, at the contemplated offering prices (or yields), of the 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 6 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 Bonds or the sale, at the contemplated offering prices (or yields), of the 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 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 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 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 Bonds.

(B) 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 Bonds.

11. Closing Conditions.

(A) The Underwriters' obligations to purchase, to accept delivery of and to pay for the Bonds at the Closing shall be conditioned upon the City's performance of its obligations under Sections 6, 7 and 8 hereof at or prior to 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 C-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 C-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 D;

(vi) an opinion or opinions, dated the date of the Closing and addressed to the Representative on behalf of the Underwriters, of McGuireWoods 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 Thompson Coburn LLP , Chicago, Illinois, and Golden Holley James LLP, Chicago, Illinois, Co-Disclosure Counsel to the City, substantially in the form attached hereto as Exhibit E;

(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, 2018, 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 Ordinance and the Trust 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 Trust Indenture;

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

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

(xiv) evidence satisfactory to the Representative that the Bonds have ratings of "BBB+" (stable outlook) by S&P Global Ratings, "BBB-" (stable outlook) by Fitch Ratings, Inc., and "A" (stable outlook) by Kroll Bond Rating Agency, Inc.;

(xv) an executed copy of each of the Escrow Agreements;

(xvi) a certificate from each escrow agent (collectively, the "Escrow Agents") to the effect that such Escrow Agent has the full legal right, power and authority to act as Escrow Agent under the related Escrow Agreement;

(xvii) a verification report of Samuel Klein and Company, Certified Public Accountants, dated the date of the Closing, as to the accuracy of certain calculations with respect to the Bonds and the Refunded Bonds; and

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

(B) 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 Bonds and acceptance of the Bonds by the Underwriters shall constitute acknowledgment by the Underwriters of the City's full performance hereunder.

12. 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 Ordinance, the Trust 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 Bonds; (c) the fees and disbursements of Co-Bond Counsel and Co-Disclosure Counsel; (d) the fees and disbursements of any experts or consultants retained by the City; (e) the fees of the Trustee and the Escrow Agents; (f) the fees for the municipal bond ratings on the Bonds; and (g) the fees of Digital Assurance Certification, L.L.C. for continuing disclosure undertaking compliance review. The City shall be responsible for any meal, travel and lodging expenses of its own officials and employees. The Underwriters will pay the expenses incurred by them or any of them in connection with their public offering and distribution of the 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.

The City shall pay for any expenses (included in the expense component of the Underwriters' discount) incurred by the Underwriters on behalf of the City in connection with the marketing, issuance and delivery of the Bonds, including, but not limited to, meals, transportation and lodging of the City's employees and representatives.

13. Underwriters' Certificate. The City's obligations to sell and deliver the 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 F, and (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.

14. 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:

J.P. Morgan Securities LLC
10 South Dearborn Street, 16th Floor
Chicago, Illinois 60603
Attention: Don Wilbon, Managing Director

15. 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 Bonds shall acquire or have any right hereunder or by virtue hereof. 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 Bonds.

16. 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.

17. Representations and Warranties of the Underwriters. The Underwriters represent and warrant that:

(A) 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.

(B) 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. Each Underwriter represents, warrants and covenants that it is and will be in compliance with all applicable laws, rules and regulations in connection with the offering, issuance and sale of the Bonds.

(C) They 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 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 Bonds.

(D) 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 Bonds upon which said officer may be called upon to act or vote.

(E) 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 attached hereto as Exhibit F.

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.

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

18. 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.

19. 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 Bond or Bonds from the Underwriters or from any third party with whom the Underwriters enter into a distribution agreement to sell the Bonds, merely because of such purchase.

20. 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.

21. 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.

22. Cooperation with City Inspector General. As acknowledged by each Underwriters' Representation Letter, 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:

(A) 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

(B) 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

(C) conspiring to engage in any of the acts set forth in items (A) or (B) 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 any Underwriters 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.

23. 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, Refunding Series 2020A to be executed by their duly authorized representatives as of the date first above written.

Very truly yours,

THE UNDERWRITERS

J.P. Morgan Securities LLC
Cabrera Capital Markets LLC
Goldman Sachs & Co. LLC
Siebert Williams Shank & Co., LLC
RBC Capital Markets
Stifel Nicolaus & Co.
BofA Securities, Inc.
Estrada Hinojosa & Company
Harvestons Securities, Inc.
Loop Capital Markets, LLC
Melvin Securities, LLC
Rice Financial Products Company

By: J.P. Morgan Securities LLC,
as Representative

By: ______________________
Donald E. Wilbon
Managing Director

Accepted by the City:

CITY OF CHICAGO

By: ______________________
Jennie Huang Bennett
Chief Financial Officer

Concurred:

By: ______________________
Scott Waguespack
Chairman, Committee on
Finance of the City Council

SCHEDULE I

TERMS OF BONDS

1. Aggregate Principal Amount: $466,495,000

2. Dated: Date of Issuance (January 30, 2020)

3. Maturities, Principal Amounts, Interest Rates, Prices and CUSIP Numbers:

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

City of Chicago
$466,495,000
General Obligation Bonds
Refunding Series 2020A

Maturity (January 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP†
2021	$3,345,000	5.00%	1.510%	103.173	167486E47
2021	700,000	3.00	1.510	101.354	167486E54
2022	3,460,000	5.00	1.620	106.361	167486E62
2022	710,000	3.00	1.620	102.596	167486E70
2023	3,635,000	5.00	1.730	109.269	167486E88
2023	730,000	3.00	1.730	103.599	167486E96
2024	3,040,000	5.00	1.850	111.854	167486F38
2024	850,000	3.00	1.850	104.327	167486F20
2025	40,600,000	5.00	1.980	114.088	167486F46
2025	195,000	3.00	1.980	104.757	167486F53
2026	51,225,000	5.00	2.100	116.061	167486F79
2026	195,000	3.00	2.100	104.984	167486F61
2027	83,920,000	5.00	2.170	118.090	167486F87
2028	77,800,000	5.00	2.240	119.924	167486G29
2029	91,925,000	5.00	2.310	121.568	167486G37
2030	84,165,000	5.00	2.380	123.025	167486G45
2031	15,760,000	5.00	2.450	122.332*	167486G52
2032	4,240,000	5.00	2.490	121.939*	167486G60

* Priced to call January 1, 2030.

†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 Bonds only at the time of issuance of the 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 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 Bonds.

4. Redemption.

The Bonds are subject to optional redemption prior to maturity, as described below. The Bonds shall be redeemed only in principal amounts of $5,000 and integral multiples thereof. The Bonds are not subject to mandatory redemption.

The 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, 2030, and if less than all of the outstanding Bonds of a single maturity are to be redeemed, the 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 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 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 Bonds from gross income for federal income tax purposes.

EXHIBIT A

PRELIMINARY OFFICIAL STATEMENT

EXHIBIT B

FORM OF ISSUE PRICE CERTIFICATE

City of Chicago

Katten Muchin Rosenman LLP
Reyes Kurson, Ltd.

Re: City of Chicago
$466,495,000 General Obligation Bonds, Refunding Series 2020A (the "Bonds")

Ladies and Gentlemen:

The undersigned, on behalf of J.P. Morgan Securities LLC (the "Representative"), acting for itself and as representative of each underwriter (together, the "Underwriting Group") named in the Bond Purchase Agreement (the "Bond Purchase Agreement") executed by the Representative and the City of Chicago (the "City") on January 16, 2020 (the "Sale Date") relating to the sale of the Bonds, hereby certifies as follows:

1. Sale of the General Rule Maturities. As of the date of this Issue Price Certificate, for each Maturity of the General Rule Maturities, the first price at which at least 10% of such Maturity of the Bonds was sold to the Public is the respective price listed in *Schedule A*.

2. Defined Terms. Capitalized terms used in this Certificate and not otherwise defined herein have the following meanings:

(a) "General Rule Maturities" means those Maturities of the Bonds listed in *Schedule A* hereto as the "General Rule Maturities."

(b) "Maturity" means Bonds with the same credit and payment terms. Bonds with different maturity dates, or Bonds with the same maturity date but different stated interest rates, are treated as separate maturities.

(c) "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 Issue Price Certificate generally means any two or more persons who have greater than 50 percent common ownership, directly or indirectly.

(d) "Sale Date" means the first day on which there is a binding contract in writing for the sale of a Maturity of the Bonds. The Sale Date of the Bonds is January 16, 2020.

(e) "Underwriter" means (i) any person that agrees pursuant to a written contract with the City (or with the Representative to form an underwriting syndicate) to participate in the initial sale of the 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 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 Bonds to the Public).

3. Additional Information.

(a) Based on the sale price of each Maturity of the Bonds, the "gross production" in connection with the sale of the Bonds was $555,912,561.25. The undersigned has calculated that the weighted average maturity of the Bonds, computed as provided in the instructions for Form 8038-G, is 7.8169 years. We have calculated the yield of the Bonds to be 2.2574%. This computation is based on the aggregate "gross production" of the Bonds set forth above and on reducing the payments on the Bonds by the amount of the refund of the insurance premium for the certain of the bonds refunded by the Bonds (the "Prior Bonds"). We have performed these calculations with the express understanding and agreement of Co-Bond Counsel and the City that, notwithstanding the performance of these calculations and delivery of this letter: (i) in doing so the undersigned is not acting as a Municipal Advisor (as defined in Section 15B of the Securities Exchange Act of 1934, as amended); (ii) we do not have a fiduciary duty to the City; and (iii) we are not to be construed as a "paid preparer" of any tax returns of the City, including specifically (but not limited to) Form 8038-G. We remind you that we are not accountants or actuaries, nor are we engaged in the practice of law. Accordingly, while we believe the calculations described above to be correct, we do not warrant them to be so, nor do we warrant their validity for purposes of Sections 103 and 141 through 150 of the Internal Revenue Code of 1986, as amended (the "Code").

(b) The undersigned has asked to calculate the weighted average maturity of the remaining weighted average maturity of the Prior Bonds in the following manner: divide (i) the sum of the products determined by taking the issue price of each maturity times the number of years from the date hereof to the date of such maturity (treating the mandatory redemption of such bonds as a maturity), by (ii) the aggregate issue price of the Prior Bonds. Based solely on these calculations, the weighted average maturity of the Prior Bonds is 8.2468 years, and the remaining weighted average maturity for the Prior Bonds comprised of (i) the City's General Obligation Bonds, Series 2007K (Modern Schools Across Chicago Program) is 3.0399 years, (ii) the City's General Obligation Bonds, Project and Refunding Series 2007A is 10.2896 years, (iii) the City's General Obligation Bonds, Series 2007G (Modern Schools Across Chicago Program) is 2.4189 years, and (iv) the City's General Obligation Bonds, Refunding Series 2009A is 6.7031 years.

The representations set forth in this Issue Price Certificate are limited to factual matters only. Nothing in this Issue Price Certificate represents the Representative's interpretation of any laws, including specifically Sections 103 and 148 of the Code and the Treasury Regulations thereunder. The undersigned understands that the foregoing information will be relied upon by the City with respect to certain of the representations set forth in the Tax Certificate and with respect to compliance with federal income tax rules affecting the Bonds, and by Co-Bond Counsel in connection with rendering their opinions that interest on the 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 Bonds.

Dated: January 30, 2020

J.P. MORGAN SECURITIES LLC, as Representative

By: ______________________________

Its:

SCHEDULE A TO EXHIBIT B

SALE PRICES OF THE GENERAL RULE MATURITIES AND INITIAL OFFERING PRICES OF THE HOLD-THE-OFFERING-PRICE MATURITIES

(*Attached*)

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

SCHEDULE B TO EXHIBIT B

PRICING WIRE OR EQUIVALENT COMMUNICATION

(*Attached*)

[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

EXHIBIT C-1

SUPPLEMENTAL OPINION OF CO-BOND COUNSEL

January 30, 2020

J.P. Morgan Securities LLC, as Representative
of the Underwriters
Chicago, Illinois

City of Chicago

We have acted as Co-Bond Counsel in connection with the issuance and sale by the City of Chicago (the "City") of its $466,495,000 General Obligation Bonds, Refunding Series 2020A (the "Bonds"). As Co-Bond Counsel, we have examined the proceedings, certificates, records and documents that we have deemed necessary and relevant as a basis for the opinions hereinafter set forth. During the course of this examination, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as certified copies. All capitalized terms used but not defined herein have the meanings given them in the Bond Purchase Agreement, dated January 16, 2020 with respect to the Bonds (the "Purchase Agreement"), by and between the City and J.P. Morgan Securities LLC, as Representative of the Underwriters. We have delivered our approving legal opinion of even date herewith with respect to the validity of the Bonds and the Underwriters may rely upon such opinion as if it was addressed to the Underwriters.

Based upon the foregoing, we are of the opinion that:

1. The Purchase Agreement has been duly authorized, executed and delivered by the City, and assuming the due authorization, execution and delivery of the Purchase Agreement by the other party thereto, constitutes a legal, valid and binding contractual obligation of the City enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by any applicable bankruptcy, insolvency, liquidation, reorganization moratorium or similar laws relating to the enforcement of creditors' rights and remedies and except that enforcement by equitable and similar remedies, such as mandamus, may be subject to the exercise of judicial discretion, or otherwise limited, in accordance with general principles of law or equity applicable to those remedies. For the purposes of this opinion we have assumed that the Purchase Agreement was not made or procured in a manner prohibited by the Public Officer Prohibited Activities Act, 50 Illinois Compiled Statutes 105.

2. The Bonds constitute exempted securities within the meaning of Section 3(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"), and Section 304(a)(4)(A) of the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"), and it is not necessary, in connection with any current public offering and sale of the Bonds, to register the Bonds under the Securities Act or qualify the Ordinance or the Trust Indenture under the Trust Indenture Act.

3. We have not been engaged nor have we undertaken to review or verify the accuracy, completeness or sufficiency of the Official Statement or other offering material relating to the Bonds. In our capacity as Co-Bond Counsel in connection with the issuance of the Bonds we have reviewed the information contained in the Official Statement under the captions "INTRODUCTION," "THE 2020A BONDS," "SECURITY FOR THE 2020A BONDS" and "TAX MATTERS" and in APPENDIX A – "Summary of the Indenture" insofar as such statements purport to summarize or describe certain provisions of the Bonds, the Ordinance and the Indenture. The purpose of our professional engagement was not to establish or confirm factual matters in the Official Statement, and we have not undertaken any obligation to verify independently any of the factual matters set forth under these captions. Subject to the foregoing, the summary descriptions in the Official Statement under such captions and in said APPENDIX A, as of the date of the Official Statement and as of the date hereof, insofar as such descriptions purport to describe or summarize certain provisions of the Bonds, are accurate summaries of such provisions in all material respects. In addition, the information in the Official Statement under the caption "TAX MATTERS" purporting to describe or summarize our opinions concerning certain federal tax matters relating to the Bonds has been reviewed by us and is an accurate summary in all material respects. Except as specifically described in this paragraph, we make no statement with respect to and have not undertaken to determine independently the accuracy, fairness or completeness of any statements contained or incorporated by reference in the Official Statement.

* * * * * * * * * *

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 Official Statement and make no representation that we have independently verified the accuracy, completeness or fairness of any such statements (except those described in paragraph 3, above). In our capacity as Co-Bond Counsel we participated in conferences with representatives, including counsel, of the Underwriters and the City at which conferences the contents of the Official Statement and related matters were discussed. The purpose of our professional engagement was not to establish or confirm factual matters set forth in the Official Statement 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 Official Statement involve matters of a non-legal nature. Based on our participation in the above-mentioned conferences and in reliance thereon, without independent verification, we advise you as a matter of fact and not opinion that, during the course of our role as Co-Bond Counsel to the City with respect to the Bonds, no facts have come to the attention of the attorneys in our firm rendering legal services in connection with such role which caused us to believe that the Official Statement (except for statements under the captions "THE CITY", "PLAN OF FINANCING," "SOURCES AND USES OF FUNDS," "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 ADVISORS," "VERIFICATION AGENT," "UNDERWRITING" and "SECONDARY MARKET DISCLOSURE," and in APPENDICES B, C, D and F, and the financial and statistical data in the Official Statement, as to all of 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. No responsibility is undertaken or statement rendered with respect to 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 Official Statement.

This letter is furnished by us as Co-Bond Counsel to the City. No attorney-client relationship has existed or exists between our firm and the Underwriters in connection with the Bonds or by virtue of this letter. This letter is solely for the benefit of the Underwriters and the City and 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.

Very truly yours,

EXHIBIT C-2

LETTERS OF SPECIAL DISCLOSURE COUNSEL

LETTER TO CITY

[Closing Date]

City of Chicago
121 North LaSalle Street
Chicago, Illinois 60602

Re: $466,495,000 City of Chicago
General Obligation Bonds
Refunding Series 2020A (the "*Bonds*")

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" (the "*Pension Sections*") of the Preliminary Official Statement dated December 23, 2019 (the "*Preliminary Official Statement*") and the Official Statement dated January 16, 2020 (the "*Official Statement*"), each relating to the Bonds issued by the City on this date.

In accordance with our understanding with the City, we have reviewed the Pension Sections, 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 January 16, 2020, with respect to the Bonds, between the City and J.P. Morgan Securities LLC, 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 Sections, we participated in conferences and correspondence with representatives of the City, the City's attorneys, Co-Disclosure Counsel to the City, the Underwriters, counsel to the Underwriters, and other persons involved in the preparation of information for the Pension Sections, during which the contents of the Pension Sections 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 Sections, 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 Sections 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 Sections, 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 Sections (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 Sections; (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 Sections 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 Sections. 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-2

LETTERS OF SPECIAL DISCLOSURE COUNSEL

LETTER TO UNDERWRITERS

[Closing Date]

J.P. Morgan Securities LLC,
as Representative of the Underwriters
named in the Bond Purchase Agreement
described below

Re: $466,495,000 City of Chicago
General Obligation Bonds
Refunding Series 2020A (the "*Bonds*")

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" (the "*Pension Sections*") of the Preliminary Official Statement dated December 23, 2019 (the "*Preliminary Official Statement*") and the Official Statement dated January 16, 2020 (the "*Official Statement*"), each relating to the Bonds issued by the City on this date.

In accordance with our understanding with the City, we have reviewed the Pension Sections, 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 January 16, 2020, with respect to the Bonds, between the City and J.P. Morgan Securities LLC, 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 Sections, we participated in conferences and correspondence with your representatives, representatives of the City, the City's attorneys, Co-Disclosure Counsel to the City, counsel to the Underwriters, and other persons involved in the preparation of information for the Pension Sections, during which the contents of the Pension Sections 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 Sections, 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 Sections 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 Sections, 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 Sections (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 Sections; (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 Sections 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 Sections 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 D

OPINION OF CORPORATION COUNSEL OF THE CITY

[Closing Date]

J.P. Morgan Securities LLC, as Representative
of the Underwriters named in the Bond Purchase
Agreement, dated January 16, 2020, between
such Underwriters and the City of Chicago

Ladies and Gentlemen:

This opinion is given to you pursuant to Section 11(A)(v) of that certain Bond Purchase Agreement dated January 16, 2020 (the "Bond Purchase Agreement"), between the City of Chicago (the "City") and J.P. Morgan Securities LLC, as representative of a group of underwriters (the "Representative"), with respect to the purchase of the $466,495,000 City of Chicago General Obligation Bonds, Refunding Series 2020A (the "Bonds"). The Bonds are being issued in accordance with the Trust Indenture between the City and Zions Bancorporation, National Association, as trustee (the "Trustee") dated as of January 1, 2020 (the "Indenture"). The Bonds are authorized by an ordinance of the City adopted by the City Council of the City (the "City Council") on November 26, 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 Bond Purchase Agreement;

(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"); and

(e) those certain Escrow Agreements dated the date hereof between the City and Zions Bancorporation, National Association, as an escrow agent (the "Escrow Agreements");

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, the Undertaking and the Escrow Agreements.

2. The Bond Purchase Agreement, the Indenture, the Undertaking and the Escrow Agreements 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, the Undertaking and the Escrow Agreements 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, the Escrow Agreements 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, the Undertaking, or the Escrow Agreements or the completeness or accuracy of the Preliminary Official Statement or the Official Statement, or 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 Official Statement (excluding information under the captions "RATINGS," "UNDERWRITING," "TAX MATTERS," "APPENDIX B – ECONOMIC AND DEMOGRAPHIC INFORMATION," "APPENDIX E – OPINIONS OF CO-BOND COUNSEL," and "APPENDIX F – BOOK-ENTRY ONLY SYSTEM," information sourced to sources other than the City or departments thereof, any information in or omitted from the Official Statement relating to DTC, any information in or omitted from the Official Statement relating to any information furnished by the Underwriters for use in the Official Statement, the financial statements and all other financial and statistical data contained in the Official Statement, including the Appendices thereto) 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,

Marc A. Flessner
Corporation Counsel

EXHIBIT E

OPINION OF CO-DISCLOSURE COUNSEL

[Closing Date]

CITY OF CHICAGO
$466,495,000
General Obligation Bonds
Refunding Series 2020A

City of Chicago
Chicago, Illinois

J.P. Morgan Securities LLC,
as Representative of the Underwriters
Chicago, Illinois

Ladies and Gentlemen:

We have acted as co-disclosure counsel in connection with the issuance of the above-referenced bonds (the "***Bonds***") pursuant to a Bond Purchase Agreement dated January 16, 2020 (the "***Bond Purchase Agreement***") by and between the City of Chicago (the "***City***") and J.P. Morgan Securities LLC, on behalf of itself and the other underwriters named in the Bond Purchase Agreement (collectively referred to as the "***Purchasers***"). In connection with the issuance of the 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 dated December 23, 2019 (the "***Preliminary Official Statement***") and the Official Statement dated January 16, 2020 (the "***Official Statement***"), relating to the Bonds.

In the course of such participation we have reviewed information furnished to us by, and have participated in conferences or otherwise with, the City's representatives, the City's Corporation Counsel, and the City's finance department; Columbia Capital Management LLC, Public Alternative Advisors, LLC, PFM Financial Advisors LLC and Swap Financial Group LLC, as the City's co-financial advisors (the "***Financial Advisors***"); the independent registered municipal advisors described in the Preliminary Official Statement and the Official Statement under the caption "FINANCIAL ADVISORS AND INDEPENDENT REGISTERED MUNICIPAL ADVISORS", as the City municipal advisors (the "***IRMAs***"); the Purchasers; Katten Muchin Rosenman LLP and Reyes Kurson, Ltd., as co-bond counsel ("***Co-Bond Counsel***"); McGuireWoods 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 Bonds and other documents and records relating to the issuance and sale of the 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, the IRMAs, 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, although 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 or the Official Statement, during the course of the activities described in the preceding paragraph, we are of the opinion that: (A) the 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 Bonds to register any security under the Securities Act of 1933, as amended and no ordinance or indenture in respect of the Bonds is required to be qualified under the Trust Indenture Act of 1939, as amended, (B) the Continuing Disclosure Undertaking complies with the requirements of paragraph (b)(5) of Rule 15c2-12 in effect as of the date of the Closing and (C) nothing has come to our attention which would lead us to believe that the Preliminary Official Statement or the Official Statement and the Appendices thereto (but excluding any information from another document or source referred to or incorporated by reference in the Preliminary Official Statement or the Official Statement, or provided by the Underwriters for use in the Preliminary Official Statement or the Official Statement, the financial statements and other financial and statistical data contained in the Preliminary Official Statement or the Official Statement and the Appendices thereto, including APPENDICES B and C, the financial and actuarial data concerning the retirement plans for City employees contained in the Preliminary Official Statement or the Official Statement under the headings "FINANCIAL DISCUSSION AND ANALYSIS – Overlapping Taxing Districts' Pension Obligations," "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 2020A BONDS – General" and APPENDIX F – "BOOK ENTRY ONLY SYSTEM", and the information included under the captions "INDEPENDENT AUDITORS," "RATINGS," "FINANCIAL ADVISORS AND INDEPENDENT REGISTERED MUNICIPAL ADVISORS," "UNDERWRITING," and "TAX MATTERS," or any other information therein relating to the tax exempt status of the Bonds, including APPENDIX E, 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 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 Bonds or the exclusion from federal or state income taxation of the interest on the Bonds, and our expression of belief with respect to the Preliminary Official Statement and Official Statement assume the validity and enforceability of the 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 F

REPRESENTATION LETTER

City of Chicago Department of Finance 121 North LaSalle Street, 7^{th} Floor Chicago, Illinois 60602 Attn.: Deputy Comptroller of Financial Policy	J.P. Morgan Securities LLC, as Representative of the Underwriters named in the Bond Purchase Agreement, dated January 16, 2020, between such Underwriters and the City of Chicago

Pursuant to the Bond Purchase Agreement dated January 16, 2020 (the "Purchase Agreement"), among the City of Chicago (the "City") and J.P. Morgan Securities LLC, as representative (the "Representative") of the underwriters named therein (each, an "Underwriter") relating to the City's General Obligation Refunding Bonds Series 2020A (the "Bonds"), 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 thereof 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 (1) above, at any time prior to the Closing (as defined in the Purchase Agreement) with respect to the 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 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:

(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 the 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 Purchase Agreement.

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

Dated: January 30, 2020

[Underwriter]

By: ______________________	By: ______________________
Name: ____________________	Name: ____________________
Title: _____________________	Title: _____________________

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

In the opinion of Katten Muchin Rosenman LLP, and Reyes Kurson, Ltd., Co-Bond Counsel, under existing law, if there is continuing compliance with certain requirements of the Internal Revenue Code of 1986, interest on the 2020A Bonds will not be includable in gross income for federal income tax purposes. Interest on the 2020A Bonds is not required to be included as an item of tax preference for purposes of computing "alternative minimum taxable income." Interest on the 2020A Bonds is not exempt from present Illinois income taxes. See "TAX MATTERS."

$466,495,000
CITY OF CHICAGO
General Obligation Bonds
Refunding Series 2020A

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

The City of Chicago General Obligation Bonds, Refunding Series 2020A (the "*2020A 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 2020A Bonds. Purchasers of the 2020A Bonds will not receive certificates representing their interests in the 2020A Bonds purchased. Ownership by the beneficial owners of the 2020A Bonds will be evidenced by book-entry only. The 2020A Bonds are issuable in denominations of $5,000 or any integral multiple thereof.

Interest on the 2020A Bonds will accrue from the date of issuance and be payable on each January 1 and July 1, commencing July 1, 2020. Principal of and interest on the 2020A Bonds will be paid by Zions Bancorporation, National Association, 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 2020A Bonds. As long as Cede & Co. is the registered owner as nominee of DTC, payments on the 2020A 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 2020A Bonds will be used to: (i) refund certain outstanding general obligation bonds of the City; (ii) fund capitalized interest on the 2020A Bonds (other than the Designated TIF Bonds, as herein defined) on each of the Interest Payment Dates (as herein defined) occurring on and before January 1, 2023; and (iii) pay costs of issuance of the 2020A Bonds. See "PLAN OF FINANCING," "SOURCES AND USES OF FUNDS," APPENDIX G – "REFUNDED BONDS" and "GENERAL OBLIGATION DEBT."

The 2020A Bonds are subject to redemption prior to maturity as described herein. See "THE 2020A BONDS – Redemption."

For maturities, principal amounts, interest rates, yields, prices and CUSIP numbers of the 2020A Bonds, see the inside front cover.

The 2020A 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 2020A 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 2020A Bonds. See "SECURITY FOR THE 2020A BONDS."

Prospective investors should read this Official Statement in its entirety prior to making an investment decision to purchase the 2020A Bonds.

The 2020A Bonds are being offered when, as and if issued, and subject to the delivery of approving legal opinions by Katten Muchin Rosenman LLP, Chicago, Illinois, and Reyes Kurson, Ltd., 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, Thompson Coburn LLP, Chicago, Illinois, and Golden Holley James LLP, Chicago, Illinois, Co-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 McGuireWoods LLP, Chicago, Illinois, Underwriters' Counsel. It is expected that the 2020A Bonds will be available for delivery through the facilities of DTC on or about January 30, 2020.

J.P. Morgan **Cabrera Capital Markets LLC** **Goldman Sachs & Co. LLC** **Siebert Williams Shank & Co., LLC**

RBC Capital Markets **Stifel**

BofA Securities **Estrada Hinojosa** **Harvestons Securities, Inc.**

Loop Capital Markets **Melvin Securities, LLC** **Rice Financial Products Company**

Dated: January 16, 2020

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 2020A 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 2020A 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 2020A 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 2020A 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 2020A 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 2020A 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 2020A BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICES OF THE 2020A 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 2020A BONDS MAY BE CHANGED FROM TIME TO TIME BY THE UNDERWRITERS AFTER THE 2020A BONDS ARE RELEASED FOR SALE, AND THE 2020A BONDS MAY BE OFFERED AND SOLD AT PRICES OTHER THAN THE INITIAL OFFERING PRICES, INCLUDING SALES TO DEALERS WHO MAY SELL THE 2020A BONDS INTO INVESTMENT ACCOUNTS.

Table of Contents

Page

OFFICIAL STATEMENT

$466,495,000
CITY OF CHICAGO
General Obligation Bonds
Refunding Series 2020A

INTRODUCTION

This Official Statement is furnished by the City of Chicago (the "*City*") to provide information with respect to the City's $466,495,000 General Obligation Bonds, Refunding Series 2020A (the "*2020A 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 2020A 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 2020A Bonds and the interest thereon without limitation as to rate or amount. The 2020A 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 (as hereinafter defined) upon all taxable property located in the City sufficient to pay the principal of and interest on the 2020A Bonds. The City has pledged its full faith and credit to the payment of the 2020A Bonds. The City anticipates abating the property tax levy in part for the 2020A Bonds if certain other revenues dedicated for the payment of debt service on the 2020A Bonds are on hand at the City. See "SECURITY FOR THE 2020A BONDS."

The proceeds of the 2020A Bonds will be used to (i) refund certain outstanding general obligation bonds of the City (collectively, the "*Refunded Bonds*"), including certain of the City's outstanding General Obligation Bonds, Series 2007G and 2007K (Modern Schools Across Chicago Program) (the "*Refunded MSAC Bonds*") (ii) fund capitalized interest on the 2020A Bonds (other than the Designated TIF Bonds) on each of the Interest Payment Dates occurring on and before January 1, 2023; and (iii) pay costs of issuance of the 2020A Bonds. See "PLAN OF FINANCING," "SOURCES AND USES OF FUNDS," APPENDIX G – REFUNDED BONDS" and "GENERAL OBLIGATION DEBT."

The 2020A 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 2020A Bonds are authorized by an ordinance adopted by the City Council of the City (the "*City Council*") on November 26, 2019 (the "*Bond Ordinance*") and are being issued pursuant to a Trust Indenture (the "*Indenture*"), dated as of January 1, 2020, between the City and Zions Bancorporation, National Association, as trustee (the "*Trustee*").

THE CITY

General

Chicago is the third most populous 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 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 tax levies, industrial revenue bonds, general obligation bonds and revenue bond programs, revenue orders, ordinances and resolutions, the financing of municipal services and capital developments; and matters generally affecting the Department of Finance, the City Comptroller, the City Treasurer and the solicitation of funds for charitable or other purposes on the streets and other public places.

Mayoral Priorities and Initiatives

On May 20, 2019, Lori E. Lightfoot became the Mayor of the City. Since taking office, the Mayor and her administration have announced a number of new programs and initiatives concerning continued progress towards sustainable City finances, investment in the south and west sides of the City, reduction in violent crime, investment in youth and enactment of improved governance practices.

City Finances

As a part of the Budget Forecast released in August 2019, the City projected an $838 million fiscal year 2020 budget gap. This projected budget gap was closed in the 2020 City budget adopted by the City Council on November 26, 2019. For a discussion of the 2020 City budget see "FINANCIAL DISCUSSION AND ANALYSIS – Corporate Fund Financial Forecasts and Budget Gaps – City's 2020 Budget."

In support of closing the initially projected fiscal year 2020 budget gap, and also to reduce potential future budget gaps, the City has implemented a number of reform measures, including outsourcing workers compensation, addressing overtime and absenteeism, reducing or eliminating short-term lines of credit, implementing cash flow forecasting, improving debt collection procedures and ethics reform, among other initiatives that are intended to generate efficiencies over time. These reforms and efficiencies are described in more detail below in "THE CITY – Mayoral Priorities and Initiatives – Reform Initiatives."

As a part of the Budget Forecast, the City included projections of the budget gap expected for fiscal years 2021 and 2022. The fiscal year 2020 projected budget gap was closed with approximately 61 percent structural solutions, or $515 million. These structural solutions are expected to carry over into future years and are expected to reduce the out-year budget gaps noted within the Budget Forecast.

Additionally, the City continues to pursue various new revenue sources to address these potential out-year budget gaps. One of the key revenue sources targeted would be generated from a casino within the City of Chicago. In June 2019, the Illinois General Assembly passed legislation authorizing a casino in the City with a maximum of 4,000 gambling "positions" or seats to place bets. In August 2019, Union Gaming Analytics published a Feasibility Analysis (the "*Feasibility Analysis*") which discussed the financial feasibility of a Chicago casino given the tax structure that was passed in Springfield. The Feasibility Analysis determined that the tax structure that was passed in the legislation would not allow for any Chicago casino to be financially feasible regardless of the location of the casino within the City of Chicago. The City intends to seek changes to the tax structure in the upcoming Illinois General Assembly session. The City cannot predict (i) whether the Illinois General Assembly will adopt legislation modifying the existing casino legislation, and if adopted, what form such legislation might take, (ii) whether a satisfactory operator will be found to construct and operate a Chicago casino, (iii) where such a casino might be located, (iv) the amount of revenues any such casino might generate, or (v) the revenues the City would receive from the operation of any such casino within City limits. See "INVESTMENT CONSIDERATIONS – Forward-Looking Statements."

Investment in the South and West Sides

On October 21, 2019, the City announced a new strategy to support revitalization on the City's south and west sides. INVEST South/West is a community development initiative that targets the resources of multiple City departments, sister agencies, community organizations, and corporate partners toward ten neighborhoods on the south and west sides of the City. This initiative has a $1 billion total investment goal, which consists of $250 million in repurposed business development and infrastructure funding from the Department of Planning and Development, $500 million in planned infrastructure improvements from other City departments and sister agencies such as the Chicago Park District and the Chicago Transit Authority, and $250 million in additional public funding and private capital sources yet to be identified. Currently, the City has identified approximately $20 million in private philanthropic giving from two major corporations and continues to pursue additional opportunities. Some of these funding commitments remain subject to approval from City Council and/or the relevant sister agencies or private partners. The City cannot predict whether such approvals will be granted or what form the above-mentioned $250 million in additional public funding and private capital sources will take. See "INVESTMENT CONSIDERATIONS – Forward-Looking Statements."

As a part of the fiscal year 2020 budget, the City will also be making $52 million in investments in areas such as affordable housing and homelessness, violence prevention, mental health needs, mitigating congestion mobility management, resident engagement and operational improvements. These investments are meant to address key quality of life issues that are a central component to the broader economic development plan outlined by INVEST South/West.

Reduction in Violence

Violent crime in the City is at its lowest point in three years. The overall crime rate is down by 10 percent in 2019 through December 15 as compared to the same period in 2018. The City has experienced an 11 percent reduction in the violent crime rate during 2019, with a reduction in gun violence incidents in every month except April and November as compared to 2018. Through December 15, 2019, homicides are down 14 percent, shooting incidents are down 9 percent, batteries are down 1 percent, robberies are down 17 percent, burglaries are down 19 percent, thefts are down 5 percent, and motor vehicle thefts are down 13 percent, in each case for the City compared to the same time period in 2018.

The City has instituted a number of initiatives with the aim of continuing the reduction in violent crime in the City. These include weekly mayoral briefings with the Police Department; the hiring of the first Deputy Mayor for Public Safety, who has an explicit mandate to develop a comprehensive violence reduction strategy focused on effective and accountable policing; and the hiring of a Director of Violence Intervention. In August 2019, the Department of Streets and Sanitation, the Department of Transportation, the Department of Water Management and other City departments launched "Operation Clean-Up" to fulfill service requests on a large scale as part of the violence-reduction initiative. This delivered comprehensive resources to neighborhoods in need of City services, including repairing broken streetlights, potholes and damaged buildings; removing unwanted graffiti; cleaning empty lots; and upgrading ADA curb ramps. During the summer of 2019, more than 400 youth participated in the inaugural six-week "Summer for Change" program, which included individualized mentoring; group-based trauma-informed therapy; and enrichment activities such as field trips, community service projects and a variety of recreational activities.

Investment in Youth

Mayor Lightfoot's administration is deeply committed to investing in the City's youth. To that end, the Mayor's Youth Commission was launched in September. This is a 25-person council made of 14-19 year-olds who are actively weighing in on policy decisions and providing a youth voice to the administration. The City has also made a series of coordinated efforts to ensure Chicago's young people remained safe, engaged and supported this summer and intends to continue this effort in the future. The 2019 One Summer Chicago Program provided youth ages 14-24 the opportunity to participate in a summer job or internship program to gain valuable work experience and critical support services in communities all throughout the City. This year, the program served nearly 32,000 youth in a wide range of job or internship programs with opportunities ranging from infrastructure jobs, camp counselors, urban agriculture and outdoor forestry projects, and private sector experience. In addition to the One Summer Chicago program, the City collaborates with local and national organizations and businesses all year round to expand coding opportunities to Chicago's nearly 500,000 students.

Reform Initiatives

The City has implemented a number of reform measures since the Mayor has taken office, including the following:

On May 20, 2019, the Mayor signed Executive Order No. 2019-2, which instructed City departments to begin the process of ending aldermanic prerogative. Executive Order No. 2019-2 sought to eliminate the "veto power" that alderman could exercise in connection with, among other things, certain permit approval processes requiring aldermanic letters of approval. In August 2019, the City published a report entitled "Sixty-Day Report on Implementation of Executive Order No. 2019-2" detailing the changes made pursuant to the order within each affected City department.

On June 13, 2019, the City announced reforms to the City's workers' compensation program to improve services for injured workers and to help prevent fraud, waste, and abuse in the administration of claims. The reforms follow the completion of a May 10, 2019 audit of the program conducted by Grant Thornton LLP. The audit revealed that the City's workers' compensation program had widespread deficiencies, driven by the lack of training for administrators, fraud controls, and clear policies needed to enforce consistency in investigations and claim administration. The audit found that the average claim was outstanding for 272 days, and that the City has paid $294.5 million toward its current open claims that remain open as a result of not being able to settle claims for above $100,000 without City Council approval. As of March 2019, there were over 1,300 claims, with approximately 600 dating back more than 10 years. The City has hired a third-party administrator ("*TPA*"), Gallagher Bassett Services, Inc., to administer the workers' compensation program and to begin to address the program's deficiencies and improve claims administration. The workers' compensation program currently has total annual program costs of $95 million. The City expects the TPA to reduce program costs over the long-term as it implements improved practices and works to settle pending claims. Workers compensation costs are expected to decline over the mid- and long-term through telephonic nurse triage services and an effective return-to-work program, though such results are not guaranteed. See "INVESTMENT CONSIDERATIONS – Forward-Looking Statements." During the first few months following the implementation of telephonic nurse triage service (August through October 2019), there were 255 new civilian workers' compensation claims reported, of which 183 were recommended for self-care. Of those recommended for self-care, only two have turned into indemnity claims.

On June 28, 2019, the City announced the elimination or reduction of $1.4 billion in short-term lines of credit and commercial paper facilities. The City has also begun to develop internal cash flow forecasting to improve its ability to determine when future borrowing is necessary. As a preliminary result of this improved cash-flow forecasting, $600 million in short-term borrowing facilities were eliminated at O'Hare and $810 million eliminated or reduced for the Corporate Fund, saving the Corporate Fund $16 million in interest and bank fees in 2019 and 2020. See "GENERAL OBLIGATION DEBT – *Short-Term Borrowing Program*" below.

Also on June 28, 2019, the City announced the appointment of the City's first Chief Risk Officer ("*CRO*") for the new Office of Risk Management for the City of Chicago. The CRO is expected to oversee the implementation of a comprehensive enterprise risk management strategy to mitigate the cost of claims, judgments, and liabilities for the City. Initial areas of focus are expected to include reducing vehicular accidents, damage to property, workplace accidents and lawsuits concerning police practices, which cost the City tens of millions of dollars each year. In addition to working to increase safety and efficiency throughout all City operations, the new risk management function is expected to reduce operational costs to the City, though such results cannot be guaranteed. See "INVESTMENT CONSIDERATIONS – Forward-Looking Statements."

On July 24, 2019, the City Council passed an ethics reform ordinance that restricts outside employment for aldermen that could conflict with the City's interests, expands oversight by the Inspector General, increases fines for ethics violations, and broadens the definition of "lobbyist."

Also on July 24, 2019, the City Council passed the Chicago Fair Workweek Ordinance, which requires employers to schedule hourly employees 10 days in advance, increasing to 14 days in 2022, and directs employers to ban certain scheduling practices that prevent workers from attending to their family, health, education and other obligations. The ordinance provides staggered implementation of the requirements beginning July 1, 2020, when the ordinance goes into effect. Under the ordinance, employers must ensure scheduling predictability, but can also offer additional hours to employees on a volunteer basis. Additionally, for employers prone to unforeseen events, there are reasonable accommodations included to account for last-minute scheduling changes.

The City's 2020 budget increases the amount appropriated for settlements and judgments over the 2019 budget by $90 million, which is consistent with past amounts actually spent and is based on a new internally established reservation process. Police settlements and judgments are now incorporated within the Police Department budget as well.

On November 26, 2019, the City Council passed an ordinance to raise the minimum wage in the City to $15 per hour, up from the current $13 per hour. The minimum wage will rise to $14 per hour on July 1, 2020, and $15 on July 1, 2021. Under the ordinance, smaller employers with fewer than 20 workers will have until 2023 to get to $15 per hour. Businesses with fewer than four employees are exempt. The ordinance also raises the subminimum wage for tipped workers to $8.40 per hour on July 1, 2020, from $6.40 per hour currently, and directs the City to study the impact of tipped wages on working-class families so as to revisit the issue in the future. The tipped wage will be set at 60 percent of the minimum wage and will accordingly rise to $9 per hour in 2021.

The City is also proactively stepping up its efforts to collect from its debtors by identifying its bad debt accounts most likely to pay, saving approximately $25 million. Certain reform measures include ensuring that City vendors have paid bad debts prior to receiving any payments from the City. The City has also implemented amnesty programs to encourage one-time resolution of outstanding bad debt as well as creating improved data analytics across the City's accounts receivable databases to improve the information used in data collection processes. A new purchasing card contract will allow the City to earn a rebate on its annual expenditures as well as create more efficient processing of certain accounts payable.

The City is also working to implement internal personnel management reform efforts and to reduce costs from waste and abuse of overtime, medical leave, and absenteeism. The administrative functions of the City's public safety agencies (Police Department, Fire Department and the Office of Emergency Management and Communications) have been consolidated into the Office of Public Safety Administration. The Office of Public Safety Administration will allow the City to return approximately 151 police officers to regular police duty, while professionalizing central office functions such as finance, accounting, payroll and benefits management. The City's network and general IT functions under the purview of Department of Innovation and Technology ("*DOIT*") are expected to be consolidated into the Department of Fleet and Facilities Management, creating a single department for all Citywide general services, called the Department of Assets, Information, and Services ("*DAIS*"). In this new model, basic IT functions such as desktop rollout and support, telecommunications, and Citywide network are expected to all be part of DAIS. The data analytics portion of DOIT is expected to move to the Mayor's Office under a Chief Data Officer.

THE 2020A BONDS

General

The 2020A Bonds mature on January 1 of the years and in the amounts set forth on the inside front cover of this Official Statement. The 2020A Bonds are fully registered bonds. The 2020A Bonds are issuable in denominations of $5,000 or any integral multiple thereof.

Each 2020A 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 2020A Bond is paid, such interest being payable on January 1 and July 1 of each year, commencing on July 1, 2020. Interest on each 2020A Bond will 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.

The Trustee will serve as bond registrar and paying agent for the 2020A Bonds. The 2020A 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 2020A Bonds may be held through DTC, directly as a participant or indirectly through organizations that are participants in DTC. Details of payments of the 2020A 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 2020A Bonds will not receive or have the right to receive physical delivery of the 2020A 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 2020A 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 2020A Bonds. So long as DTC or its nominee is the registered owner of the 2020A Bonds, references herein to Bondholders or registered owners of such 2020A Bonds means DTC or its nominee and do not mean the beneficial owners of such 2020A Bonds.

Payment of the 2020A Bonds

The principal and Redemption Price of the 2020A 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 2020A Bond will be paid to the person in whose name such 2020A 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 2020A Bonds, by wire transfer of immediately available funds to such bank in the continental United States of America as the registered owner of such 2020A Bonds requests in writing to the Trustee.

Optional Redemption of the 2020A Bonds

The 2020A 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, 2030, and if less than all of the outstanding 2020A Bonds of a single maturity are to be redeemed, the 2020A 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 2020A 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 2020A 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 2020A Bonds from gross income for federal income tax purposes.

The 2020A Bonds are not subject to mandatory redemption.

Selection of 2020A Bonds for Redemption

The 2020A Bonds may be redeemed only in principal amounts of $5,000 or any integral multiple thereof ("*Authorized Denominations*").

While the 2020A 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 2020A Bonds, if less than all of the 2020A Bonds of a maturity are to be redeemed prior to maturity, the particular 2020A Bonds or portions of such 2020A 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 2020A Bonds are not registered in the book-entry system, the following procedures for the selection of such 2020A Bonds shall apply.

If less than all the 2020A 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 2020A Bonds, and (ii) subject to other applicable provisions of the Indenture, the portion of any 2020A Bond to be redeemed shall be in a principal amount equal to an Authorized Denomination. In selecting 2020A Bonds for redemption, the Trustee shall assign to each 2020A Bond of like Maturity Date and interest rate a distinctive number for each minimum Authorized Denomination of such 2020A 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 2020A Bonds to be redeemed. In such case, the 2020A 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 2020A 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 2020A 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 2020A Bond shall forthwith surrender such 2020A 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 2020A Bond or 2020A Bonds in the aggregate principal amount of the unredeemed balance of the principal amount of such Bond. New 2020A Bonds representing the unredeemed balance of the principal amount of such 2020A Bonds shall be issued to the Registered Owner thereof without charge therefor.

Notice of Redemption

Unless waived by any owner of 2020A 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 2020A Bond or 2020A 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 2020A Bond shall not affect the validity of the proceedings for the redemption of any other 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 2020A Bonds shall state: (1) the redemption date; (2) the Redemption Price; (3) if less than all outstanding 2020A Bonds are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts and interest rates) of the 2020A Bonds to be redeemed; (4) that on the redemption date the Redemption Price will become due and payable upon each such 2020A 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 2020A 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.

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 2020A Bonds. If such moneys are not so received, such redemption notice shall be of no force and effect, the City shall not redeem such 2020A 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 2020A 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 2020A Bonds, the City shall deposit with the Trustee an amount of money sufficient to pay the applicable Redemption Price of all the 2020A Bonds or portions thereof which are to be redeemed on that date.

2020A Bonds Not Presented for Payment

If any 2020A 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 2020A Bond are held by the Trustee for the benefit of the Registered Owner of such 2020A Bond, the Trustee shall hold such moneys for the benefit of the Registered Owner of such 2020A Bond without liability to the Registered Owner for interest. The Registered Owner of such 2020A Bond thereafter shall be restricted exclusively to such funds for satisfaction of any claims relating to such 2020A Bond.

Registration and Transfers

The Bond Register for the registration and transfer of the 2020A Bonds will be kept at the Designated Corporate Trust Office of the Trustee, as the registrar for the City in connection with the 2020A Bonds. See APPENDIX F – "BOOK-ENTRY ONLY SYSTEM" for a discussion of registration and transfer of the beneficial ownership interests in 2020A Bonds while they are in the book-entry system. The following provisions relate to the registration and transfer of 2020A Bonds when such 2020A Bonds are in certificated form.

Subject to the limitations described in the following paragraph, (i) upon surrender for registration of transfer of any 2020A 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 2020A Bonds of the same Maturity Date of Authorized Denominations, for a like principal amount bearing numbers not contemporaneously outstanding and (ii) 2020A Bonds may be exchanged at the Designated Corporate Trust Office of the Trustee for a like aggregate principal amount of 2020A 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 2020A Bond during the period commencing on the Record Date next preceding any Interest Payment Date of such 2020A Bond and ending on such Interest Payment Date, or to transfer or exchange such 2020A Bond after the mailing of notice calling such 2020A 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 2020A Bonds of the same Maturity Date.

No service charge shall be made for any transfer or exchange of 2020A 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 2020A Bonds, except that no such payment may be required in the case of the issuance of a 2020A Bond or 2020A Bonds for the unredeemed portion of a 2020A Bond surrendered for redemption.

2020A Bonds delivered upon any registration of transfer or exchange will be valid general obligations of the City, evidencing the same debt as the 2020A 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 2020A Bond surrendered.

Registered Owner Treated as Absolute Owner

The City, the Trustee and any Paying Agent may treat the Registered Owner of any 2020A Bond as the absolute owner thereof for all purposes, whether or not such 2020A 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 2020A 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 2020A Bond to the extent of the sum or sums so paid.

SECURITY FOR THE 2020A BONDS

General Obligation of the City

The 2020A 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 2020A Bonds and the interest thereon without limitation as to rate or amount. The 2020A 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 2020A 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 2020A Bonds (the "*Ongoing Financing Services*"). In the Indenture, the City covenants that, until all of the 2020A 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 2020A Bonds (or for the purchase by the City of 2020A 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 Clerk of The County of Cook, Illinois (the "*Cook County Clerk*") and the County Clerk of The County of DuPage, Illinois (the "*DuPage County Clerk"*, and together with the Cook County Clerk, the "*County Clerks*") at the time of issuance of the 2020A 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 2020A Bonds. Under the Bond Ordinance, the City is obligated to appropriate amounts sufficient to pay principal of and interest on the 2020A 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 2020A 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.

Pursuant to the Bond Ordinance, the City reserves the right to abate all or a portion of the Bond Property Tax Levy for any year to the extent the City has on hand, on or before March 31 of such year (or such earlier date as may be required by law), funds dedicated for the payment of principal of, interest on and Redemption Price, if any, on the 2020A Bonds. The Refunded Bonds include the Refunded MSAC Bonds. Debt service on the Refunded MSAC Bonds has been paid, in whole or in part, from TIF revenues derived from certain TIF Districts (as hereinafter defined). The City anticipates abating a portion of the Bond Property Tax Levy to the extent that TIF revenues are available for payment of debt service on the 2020A Bonds that are Designated TIF Bonds. See the inside cover of this Official Statement and APPENDIX A – "SUMMARY OF THE INDENTURE" to identify the Designated TIF Bonds.

Capitalized Interest

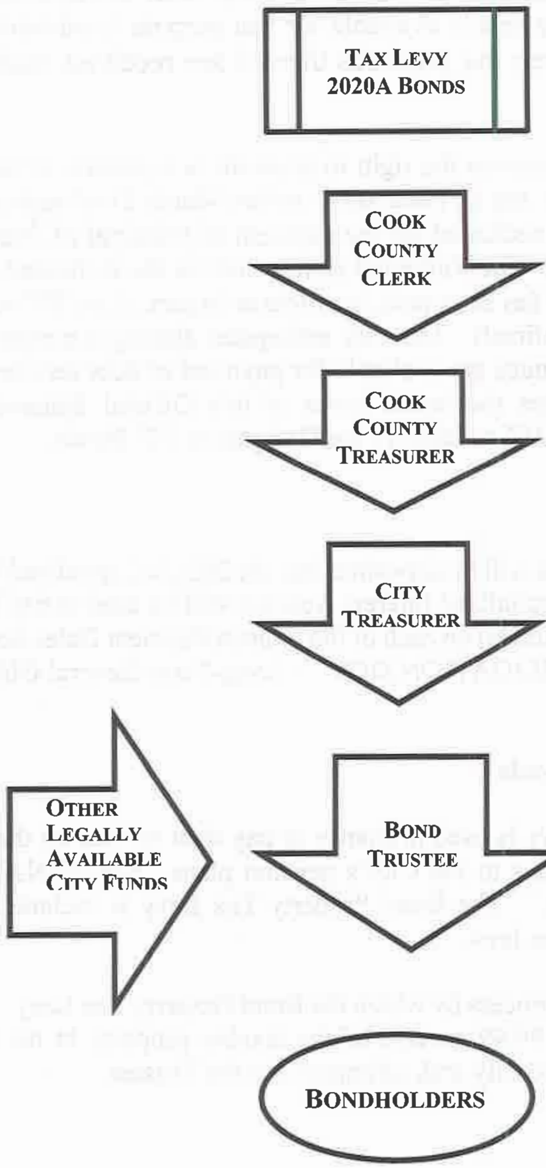
A portion of the proceeds of the 2020A Bonds will be deposited into the 2020A Capitalized Interest Account of the Bond Fund. Moneys in the 2020A Capitalized Interest Account will be used to pay interest on the 2020A Bonds (other than the Designated TIF Bonds) on each of the Interest Payment Dates occurring on and before January 1, 2023. See "GENERAL OBLIGATION DEBT – Long-Term General Obligation Bonds Debt Service Schedule."

Property Tax Collection Process for the 2020A 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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]



The Bond Ordinance provides for the levy and collection of a direct annual tax upon all taxable property in the City in not less than the amount needed to make payments of debt service on the 2020A Bonds, and a certified copy of the Bond Ordinance is filed with the Cook County Clerk prior to the issuance of the 2020A Bonds.

The City informs the Cook County Clerk of its annual aggregate tax levy (which includes confirmation of the Bond Property Tax Levy), and the Cook County Clerk determines the property tax for the City and all overlapping taxing districts for each City parcel.

The Cook County Treasurer issues the tax bills, collects the property taxes, and remits the City's share of property taxes to the City Treasurer.

The City Treasurer deposits the portion of the property taxes earmarked for general obligation debt (including the 2020A Bonds) into the Bond, Note Redemption and Interest Fund held by the City Treasurer described in the paragraph following this chart.

The City Treasurer remits from the Bond, Note Redemption and Interest Fund an amount equal to the Principal and Interest Account Requirement for the 2020A Bonds to the Trustee for deposit into the Bond Fund established under the Indenture sufficiently in advance to enable the Trustee to make debt service payments on the 2020A Bonds on or prior to the scheduled debt service payment dates. If property taxes are insufficient, payments to the Trustee are to be made from any other legally available revenues.

The Trustee makes the principal and interest payments for the 2020A Bonds to the Bondholders thereof on the scheduled debt service payment dates.

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 2020A 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

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 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 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 2020A 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 2020A 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 2020A 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 2020A 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 2020A Bonds when due.

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

PLAN OF FINANCING

Overview

The Bond Ordinance provides for the implementation of a plan (the "*Financing Plan*") to provide for the refunding of certain Outstanding Debt Obligations (as hereinafter defined) through the issuance of the 2020A Bonds and bonds to be issued by the Sales Tax Securitization Corporation (the "*Corporation*") in a combined aggregate principal amount not to exceed $1,500,000,000. For additional information relating to the Corporation and its bonds, see "FINANCIAL DISCUSSION AND ANALYSIS – General Fund – Sales Taxes."

The "*Outstanding Debt Obligations*" to be refunded consist of: (i) certain outstanding general obligation bonds of the City (including the Refunded Bonds) and certain outstanding motor fuel tax revenue bonds of the City (collectively, the "*Outstanding City Bonds*"), and (ii) certain outstanding notes (the "*Trust Notes*") issued by the Chicago Infrastructure Trust, an Illinois not-for-profit corporation and an instrumentality of the City.

The proceeds of the 2020A Bonds will be used to (i) refund the Refunded Bonds, including the Refunded MSAC Bonds, (ii) fund capitalized interest on the 2020A Bonds (other than the Designated TIF Bonds) on each of the Interest Payment Dates occurring on and before January 1, 2023; and (iii) pay costs of issuance of the 2020A Bonds. The maturities and CUSIPs of the Refunded Bonds are shown on APPENDIX G. The Refunded Bonds will be redeemed at par on February 20, 2020.

To provide for the payment of (and in certain cases the defeasance of) the Refunded Bonds, certain proceeds of the 2020A Bonds will be used to purchase securities constituting direct obligations of the United States of America (collectively, the "*Government Obligations*") and to provide initial cash deposits. The principal of and interest on the Government Obligations, together with available cash deposits, will be sufficient (i) to pay when due the interest on the Refunded Bonds to their respective redemption dates, and (ii) to redeem the Refunded Bonds on their respective redemption dates at their respective redemption prices.

The Government Obligations purchased with the proceeds of the 2020A Bonds, together with available cash deposits, will be held in trust with the respective paying agents for the Refunded Bonds (collectively, the "*Escrow Funds*"). Neither the cash on deposit, the maturing principal of the Government Obligations nor the interest to be earned thereon will serve as security for or be available for the payment of the principal of or the interest on the 2020A Bonds.

The accuracy of the mathematical computations regarding the adequacy of the maturing principal of and interest earnings on the Government Securities together with the initial cash deposits in the Escrow Funds to pay the redemption prices for the Refunded Bonds will be verified by Samuel Klein and Company, Certified Public Accountants. See "VERIFICATION AGENT."

The City expects that the Corporation will issue bonds in the aggregate principal amount of $1,016,915,000 (the "*Corporation Refunding Bonds*") contemporaneously with the City's issuance of the 2020A Bonds (i) to refund certain Outstanding Debt Obligations and Trust Notes, and (ii) to pay the purchase price of certain GO Tendered Bonds (as defined herein), all as described in the Offering Circular of the Corporation related to the Corporation Refunding Bonds. In connection with implementation of the Financing Plan, the City issued an Invitation to Tender Bonds, to the beneficial owners of certain taxable general obligation bonds of the City, and has determined to purchase $373,972,000 aggregate principal amount of such bonds (the "*GO Tendered Bonds*") with a portion of the proceeds of the Corporation Refunding Bonds. Goldman Sachs & Co. LLC and J.P. Morgan Securities LLC acted as dealer managers in connection with the Invitation to Tender Bonds and will receive customary compensation in connection therewith. On January 17, 2020, the Corporation sold the Corporation Refunding Bonds to a syndicate of underwriters. The Offering Circular of the Corporation related to the Corporation Refunding Bonds will be available on the Electronic Municipal Market Access system, known as EMMA, designated by the MSRB (as herein defined) pursuant to the Rule (as herein defined) at https://emma.msrb.org/.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

SOURCES AND USES OF FUNDS

The following tables set forth the sources and uses of funds from the sale of the 2020A Bonds as described under "PLAN OF FINANCING."

SOURCES OF FUNDS:	
Principal Amount of the 2020A Bonds	$466,495,000.00
Original Issue Premium	89,417,561.25
Total Sources of Funds	$555,912,561.25
USES OF FUNDS:	
Deposit to refund the Refunded Bonds	$487,674,049.82
Capitalized Interest	63,920,647.64
Costs of Issuance (including the Underwriters' Discount)	4,317,863.79
Total Uses of Funds	$555,912,561.25

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 Office of the Mayor 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 in October 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 2020A Bonds. Prospective purchasers of the 2020A Bonds are cautioned not to rely on any of the information in the budget documents in connection with the offering of the 2020A Bonds.*

Annual Budget Documents

Document	Purpose
Budget Forecast (formerly known as the Annual Financial Analysis)	Provides a forecast of the City's finances for the next three years, a review of the City's revenues and expenditures for the past 10 years and analysis of the City's reserves, pension contributions, debt obligations and capital improvement program.
Budget Overview	Provides a summary of the proposed budget and detailed information on the City's anticipated revenues, expenditures, and personnel.
Budget Recommendations	Constitutes the Mayor's proposed budget to the City Council in accordance with State law.
Consolidated Plan & Action Plan	The five-year plan setting forth priorities for the City's housing and non-housing community needs based on housing and community development assessments.
Annual Appropriation Ordinance	The City's line-item budget as passed by the City Council.

Separate from the annual budget process, each year OBM also produces a comprehensive list of capital improvements scheduled to occur in the City over the next five years, known as the Capital Improvement Program.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Budget Calendar

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

Annual Budget Calendar

Month	**Action**
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 Office of the Mayor 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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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, 2018."

City Funds

Fund	Purpose
General Fund	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.
Federal, State and Local Grants Fund	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.
Special Taxing Areas Fund	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.
Service Concession & Reserve Fund	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.
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.
Community Development and Improvement Projects Fund	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.
STSC Debt Service Fund	The STSC Debt Service Fund accounts for the expenditures for principal and interest as provided by sales tax revenues.
Pension Fund	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.
Special Revenue Funds	The City's special revenue funds (the "*Special Revenue Funds*") 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.
Proprietary Funds	The City's proprietary funds (the "*Enterprise Funds*") include the water fund, the sewer 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 2020A 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, 2018."

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*"), expenditures and other financing uses and changes in fund balance for the General Fund on a historical basis for the years 2014 to 2018. 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 2014 to 2018, 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, 2018."

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

General Fund[1]
For Fiscal Years Ended 2014 – 2018
($ in thousands)

	2014	2015	2016	2017	2018
Revenues:					
Utility Tax	$ 473,496	$ 437,780	$ 434,409	$ 438,979	$ 432,060
Sales Tax[2]	620,299	665,793	674,515	500,360	56,986
State Income Tax[3]	278,031	336,959	413,673	388,236	392,449
Other Taxes[4]	803,961	935,658	1,080,423	1,109,348	1,210,136
Federal/State Grants	2,335	1,845	1,869	2,514	3,444
Other Revenues[5]	998,028	1,088,600	1,077,723	1,120,022	1,046,674
Total Revenues	$ 3,176,150	$ 3,466,635	$ 3,682,612	$ 3,559,459	$ 3,141,749
Expenditures:					
Current:					
Public Safety	2,020,072	2,061,540	2,195,201	2,228,705	2,229,455
General Government	929,918	1,064,470	993,682	929,471	1,064,874
Other[6]	270,899	298,817	263,503	277,643	292,900
Debt Service[7]	10,369	8,275	20,822	19,039	10,224
Total Expenditures	$ 3,231,258	$ 3,433,102	$ 3,473,208	$ 3,454,858	$ 3,597,453
Revenues Over (Under) Expenditures	$ (55,108)	$ 33,533	$ 209,404	$ 104,601	$ (455,704)
Other Financing Sources (Uses):					
Proceeds of Debt, Net of Original Discount/Including Premium	-	19,300	-	-	-
Transfers In[2]	39,700	34,551	14,998	180,227	627,542
Transfers Out	(10,081)	(12,760)	(169,955)	(268,263)	(127,390)
Total Other Financing Sources (Uses)	29,619	41,091	(154,957)	(88,036)	500,152
Revenues and Other Financing Sources Over (Under) Expenditures and Other Financing Uses	(25,489)	74,624	54,447	16,565	44,448
Fund Balance – Beginning of Year	167,057	141,278	215,232	269,582	288,361
Change in Inventory	(290)	(670)	(97)	2,214	(482)
Fund Balance – End of Year	$ 141,278	$ 215,232	$ 269,582	$ 288,361	$ 332,327

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 or on the Department of Finance page on the City's website (but such website is not being incorporated herein by reference).

(1) 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*").

(2) For 2017 and 2018 Transfer In includes Residual Sales Tax Revenues received by the City from the Corporation. See "*– Other Financing Sources (Uses).*" The amount of Residual Sales Tax Revenues transferred to the City was $150.8 million in 2017 and $608.2 million in 2018.

(3) Includes the City's share of state income taxes, including personal property replacement taxes.

(4) Includes Transaction, Transportation, Recreation, and Business Taxes, as well as the City's share of the State Auto Rental Tax.

(5) Includes Internal Service, Licenses and Permits, Fines, Investment Income, Charges for Services, and Miscellaneous Revenues.

(6) Includes Health, Streets and Sanitation, Transportation, Cultural and Recreational, and Other Current Expenditures.

(7) Represents debt service on general obligation bonds that are not paid from an annual property tax levy. 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 2014 through 2018:

Utility Tax Revenue 2014 – 2018
($ in thousands)

	2014	2015	2016	2017	2018
Gas	$153,274	$119,705	$111,087	$124,681	$128,580
Electric	96,353	95,215	98,694	95,389	98,510
Commonwealth Edison	90,202	87,578	91,436	88,311	90,847
Telecommunication	106,129	105,514	103,577	101,892	87,440
Cable Television	27,538	29,768	29,615	28,706	26,683
Total Utility Tax	$473,496	$437,780	$434,409	$438,979	$432,060

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 2014 and 2018. In 2014, utility taxes were $473.5 million, declining to $432.1 million in 2018. 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 Taxes. 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 2014 were $153.3 million, accounting for 4.8 percent of total General Fund resources. In 2018, natural gas-related tax revenues were $128.6 million, accounting for 4.1 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 2014 to 2018, 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 landline telephone services in the City, has declined over the past decade, reflecting trends in the industry and consumer preferences. In 2014, telecommunications tax revenue was $106.1 million and made up 3.3 percent of General Fund resources. By 2018, telecommunications tax revenue had dropped to $87.4 million, accounting for 2.8 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. Sales Taxes include certain sales taxes imposed by the City and collected by the City ("*City-Collected Sales Tax Revenues*") and sales tax revenues collected by the State ("*State-Collected Sales Tax Revenues*"). In December 2017, the City entered into an agreement (the "*Agreement*") with the Corporation pursuant to which the City sold to the Corporation the City's rights to receive 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 General Fund as "Transfers In" rather than recorded as "Revenues" as they were previously. Sales Taxes in the General Fund for 2017 and 2018 are reduced as a result of the sale of the State-Collected Sales Tax Revenues to the Corporation. Transfers In in the General Fund for 2017 and 2018 are increased as a result of deposits of Residual Sales Tax Revenues from the Corporation for those years; see "– Other Financing Sources (Uses)." The amount of Residual Sales Tax Revenues transferred to the City was $150.8 million in 2017 and $608.2 million in 2018. Sales tax revenues received by the Corporation were $177.0 million and $697.3 million in 2017 and 2018 respectively. Total City-Collected Sales Tax Revenues received by the City and State-Collected Sales Tax Revenues received by the Corporation grew by 5.3 percent in 2018 and by 4.2 percent on average over the last five years.

City-Collected Sales Tax Revenues 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. City-Collected Sales Tax Revenues were not sold to the Corporation and continue to be recorded in the City's General Fund as revenues. In 2018, General Fund revenue from City-collected sales taxes was $57.0 million, or 1.8 percent of total General Fund resources.

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 2014 through 2018:

State Income Taxes 2014 – 2018
($ in thousands)

	2014	2015	2016	2017	2018
Income Taxes	$250,279	$286,473	$253,968	$239,894	$255,028
Personal Property Replacement Taxes	27,752	50,486	159,705	148,342	137,421
Total State Income Tax	$278,031	$336,959	$413,673	$388,236	$392,449

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. Transfers 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, transfers to the LGDF increased to 8.0 percent of personal income tax and to 9.14 percent of 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.

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 transfer to the LGDF by decreasing the percentage of income tax revenue distributed to the LGDF to 6.06 percent of individual income tax and 6.85 percent of 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 the 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. For the State's fiscal years 2019 and 2020, the distribution to the LGDF is 5.757 percent of individual income tax collections and 6.50 percent of corporate income tax collections.

During the 2019 legislative session, the Illinois General Assembly passed legislation that will place on the November 2020 election ballot a proposed constitutional amendment to permit a change from the State's existing flat state income tax structure to an income-graduated state income tax structure. The Illinois General Assembly further reduced the percentage that would be deposited into the LGDF to 5.32 percent of individual income tax and 6.16 percent of corporate income tax. Amounts would begin being deposited into the LGDF at these rates when the income-graduated state income tax structure takes effect, if approved by voters, on February 1, 2021. In anticipation of the vote on the proposed constitutional amendment, the Illinois General Assembly has already approved legislation including a schedule of graduated income tax rates which would raise the current flat tax rates of 4.95 percent for individuals and 7.0 percent for corporations to tiered rates of up to 7.99 percent for individuals and 7.99 percent for corporations if the constitutional amendment is approved by the voters.

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 General Fund. Effective in 2016, the total receipt of PPRT revenue is deposited into the General Fund, and a portion of the City's share of pension contributions is paid out of the General 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 General Fund revenues by the amount of the PPRT revenues deposited into the General Fund and increasing the General 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. A final reconciliation in 2017 found that 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 $166.8 million. When IDOR reported the error in early 2016, the original plan was to reconcile the previous returns in early 2017. Once the final 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 State's 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 $137.4 million in 2018, $10.9 million lower than 2017 revenue of $148.3 million, and accounts for 4.4 percent of total 2018 General Fund resources at year-end.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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 2014 through 2018.

Other Taxes 2014 – 2018
($ in thousands)

	2014	2015	2016	2017	2018
Transportation Tax					
Parking	$126,516	$131,489	$134,464	$135,363	$133,997
Vehicle Fuel	48,161	49,332	53,042	54,230	53,676
Ground Transportation	10,399	17,056	59,594	85,406	119,411
Transaction Tax					
Real Property	157,194	191,148	197,080	161,737	175,500
Personal Property Lease	152,576	192,504	259,939	265,724	295,432
Motor Vehicle Lessor	6,431	6,656	6,588	6,757	6,575
Recreation Tax					
Amusement	112,895	145,675	163,563	172,617	195,500
Automatic Amusement	584	544	499	443	376
Liquor	32,113	33,651	33,137	32,631	33,012
Boat Mooring	1,309	1,386	1,332	1,303	1,841
Cigarette	24,022	22,832	23,131	21,254	21,269
Off Track Betting	547	512	592	554	477
Soft Drink	22,210	22,910	24,354	24,338	27,040
Business Tax					
Hotel	100,407	109,784	113,500	131,609	130,393
Foreign Fire Insurance	4,422	5,983	5,385	5,603	5,131
Shopping Bag Tax	-	-	-	5,642	6,391
State Auto Rental Tax	4,175	4,196	4,223	4,137	4,115
Total Other Taxes	$803,961	$935,658	$1,080,423	$1,109,348	$1,210,136

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 9.8 percent of total General Fund resources between 2014 and 2018.

Parking taxes, which are imposed on parking garage operators, have consistently made up the largest portion of this category of revenues. The City increased parking garage taxes by 2.0 percent in 2015 that contributed to revenue growth. 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 2014 through 2018, the vehicle fuel tax generated an average of $51.7 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, a portion of 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 $10.4 million in 2014 to $119.4 million in 2018.

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 12.2 percent of total General Fund resources between 2014 and 2018. The transaction tax on real property transactions is imposed at a rate of $3.75 per $500 value of the transferred property. Fluctuations in these revenue sources track closely with the economy and the real estate market and commercial and residential real estate activity and pricing impacted revenues during this time period.

As with other transaction and consumer-driven tax revenues, collections of personal property lease transaction tax revenues between 2014 and 2018 were impacted by levels of personal and business consumption resulting from consumer confidence. 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 $295.4 million, 9.4 percent of General Fund revenues, in 2018.

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 8.9 percent of General Fund revenues in 2018.

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 9.0 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 1,500 people; there is no amusement tax for live theatrical, live musical or other live cultural performances in venues with a capacity of 1,500 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 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 2014, revenues collected from the amusement tax have grown by 73.2 percent to $195.5 million in 2018, when they accounted for 6.2 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, 0.7 percent of General Fund revenues, in 2018. 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 $33.0 million, 1.1 percent of General Fund revenues, in 2018.

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 3.7 percent of total General Fund revenues between 2014 and 2018. 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. Since 2012, the City has made a number of adjustments to the hotel tax rate and its application to new industries to significantly grow 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. In May 2017, the City received a net settlement payment of over $12 million from the resolution of a decade-long litigation related to payment of the City's hotel tax by internet hotel booking websites. In 2018, hotel accommodation tax revenue reached $130.4 million, 4.2 percent of General Fund revenues.

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 2014 through 2018.

Other Revenues 2014 – 2018
($ in thousands)

	2014	2015	2016	2017	2018
Internal Service	$305,716	$345,426	$342,606	$347,738	$270,172
Licenses and Permits	119,940	126,727	130,399	133,500	139,792
Fines	338,329	366,309	318,388	344,925	336,900
Investment Income	1,573	911	8,251	6,978	1,627
Charges for Services	134,593	119,598	185,196	182,148	185,728
Municipal Utilities	7,257	6,511	7,476	7,654	7,761
Leases, Rentals and Sales	24,127	25,489	26,111	25,885	35,724
Miscellaneous	66,493	97,629	59,296	71,194	68,970
Total Other Revenues	$998,028	$1,088,600	$1,077,723	$1,120,022	$1,046,674

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 9.5 percent of General Fund resources from 2014 through 2018 and have ranged from $270.2 million in 2018 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. Licenses and permits revenue in 2018 was $139.8 million, or 4.4 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 decreased slightly from $338.3 million in 2014 to $336.9 million in 2018. These revenues accounted for 10.7 percent of total 2018 General Fund resources. Increases in fine and penalty rates and improved debt collection have 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. Revenues in 2016 and beyond reflect the implementation of a fee for garbage collection. In 2018, revenues from charges for services were $185.7 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 $24.1 million to $35.7 million over the last five years. In 2018, lease and sale income was $35.7 million, a notable increase over the 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 $66.5 million in 2014 and $69.0 million in 2018.

General Fund Expenditures

Total General Fund expenditures, including other financing uses, have ranged from $3.2 billion in 2014 to $3.6 billion in 2018. 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 as described below and 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*"). See "GENERAL OBLIGATION DEBT – MRL Financing LLC Promissory Note." The building acquisition certificates and the MRL Note are not paid from property taxes and are not material.

Public Safety. Each year, the largest portion of General Fund expenditures is dedicated to public safety functions, among others, 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. Until 2018, public safety had been a primary driver of expenditures, growing as a percentage of General Fund expenditures to 64.5 percent in 2017, but dropping to 62.0 percent in 2018. Public safety expenditures were $2,229.5 million in 2018.

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 2014 through 2018. General government expenditures were $1,064.9 million in 2018.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Other Current Expenditures. The following table sets forth the other current expenditures of the General Fund by function for the years 2014 through 2018.

Other Current Expenditures 2014 – 2018
($ in thousands)

	2014	2015	2016	2017	2018
Health	$ 25,902	$ 26,001	$ 29,430	$ 30,083	$ 30,767
Streets and Sanitation	195,390	199,644	195,310	197,491	206,499
Transportation	47,309	67,145	35,421	50,069	54,376
Cultural and Recreational	-	-	482	-	-
Other	2,298	6,027	2,860	-	1,258
Total Other Current Expenditures	$270,899	$298,817	$263,503	$277,643	$292,900

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 2014 through 2018.

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 2014 through 2018.

Transportation. Transportation expenditures support the operations of the Department of Transportation and have averaged approximately 1.5 percent of annual General Fund expenditures between 2014 and 2018. 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 (Uses)

Other Financing Sources (Uses) recorded in the General Fund include Residual Sales Tax Revenues received from the Corporation under the Sales Tax Securitization Transaction and in 2017 in the amount of $150.8 million and in 2018 in the amount of $608.2 million. See "– General Fund Revenue –Sales Taxes," above. Other Financing Sources (Uses) recorded in the General Fund for 2017 and 2018 also include investment income on the City's Asset Lease and Concession Reserves. See "Fund Stabilization – Asset Lease and Concession Reserves," below. Total Other Financing Sources (Uses) were $500.2 million in 2018.

Corporate Fund Financial Forecasts and Budget Gaps

Overview of Corporate Fund Financial Forecasts

The City's annual budget is prepared based on estimated revenues and expenditures from the Corporate Fund and the City is presenting certain information in this section about the Corporate Fund related to the City's budgets and budget gaps. Elsewhere in this Official Statement the City presents information about the General Fund in order to facilitate the reader's review of the City's basic financial statements. 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 City prepares certain estimates and projections as a part of its annual budget process and in conjunction with its long-term financial planning. Certain of such financial forecasts are included below. Such financial forecasts do not reflect implementation of the Financing Plan. The estimates and projections are based on expectations and assumptions which existed at the time such estimates and projections were prepared, including, among other factors, evaluations of historical revenue and expenditure data, known changes or events, analyses of economic trends and current and anticipated laws and legislation affecting the City's finances. While the City believes that the numerous assumptions underlying the estimates and projections are reasonable, they are subject to certain contingencies and periodic revisions which may involve substantial change. The City makes no representation or warranty that these estimates and projections will be realized. The estimates and projections discussed below and elsewhere herein were not prepared with a view towards compliance with the guidelines established by the American Institute of Certified Public Accountants with respect to prospective financial information. The estimates and projections assume that no substantive changes are made to City operations or the cost of City services. No cost-saving initiatives are incorporated into the estimates and projections. The estimates and projections are likely to change as future decisions are made in response to actual events, new or changing needs and Citywide priorities. No assurance can be given that actual results will conform to the estimates and projections provided. This prospective information is not fact and should not be relied upon as being necessarily indicative of future results. Purchasers of the 2020A Bonds are cautioned not to place undue reliance on this prospective financial information. See "INVESTMENT CONSIDERATIONS – Forward-Looking Statements."

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 "budget 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 2011 through 2020.

Preliminary Budget Gaps 2011 – 2020
($ in millions)

Year	Amount
2011	$654.7
2012	635.7
2013	369.0
2014	338.7
2015	297.3
2016	232.6
2017	137.6
2018	114.2
2019	97.9
2020	838.2

Source: City of Chicago, OBM.

Corporate Fund Projected Income Statement

The following is an overview of the City's year-end estimates for 2019 and projections for years 2020, 2021, and 2022 for the Corporate Fund of the City's operating revenues and expenditures as found in the City's "*2020 Budget Forecast*." These expenditure and revenue projections assume no substantive changes to City operations in 2020, and were prepared before the development of the 2020 budget. Cost saving initiatives are not incorporated into these estimates as the 2020 projections reflect the structural gap in the City's operating budget related to existing expenses and revenues. Throughout the 2020 Budget Forecast, specific items of revenue and/or expenditure are grouped together with other items of revenue and/or expenditure for purposes of presentation. The manner in which such items are grouped and labeled is consistent with the groups and labels in the City's Annual Appropriation Ordinance and not in the City CAFR. Therefore, the manner of grouping and labeling herein may not match the manner in which such revenues and/or expenditures are grouped and labeled in the City CAFR.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Income Statement – Corporate Fund Forecast Base Case (Fiscal Years 2019 – 2022)
($ in millions)

	2019 Budget	2019 Year-end Estimates	2020 Projected	2021 Projected	2022 Projected
Revenues					
Local Tax Revenue	$1,662.7	$1,674.7	$1,710.2	$1,731.9	$1,755.1
Proceeds and Transfers In	604.6	605.6	645.7	621.2	635.9
Intergovernmental Revenue	398.2	444.3	433.2	439.1	444.9
Local Non-Tax Revenue	1,074.3	1,041.1	1,003.9	988.7	986.6
Prior Year Assigned and Unassigned Fund Balance	76.0	76.0	38.0	38.0	38.0
Total Revenues	$3,815.7	$3,841.7	$3,831.0	$3,818.8	$3,860.5
Expenditures					
Personnel Services	$2,483.3	$2,497.1	$2,779.6	$3,050.9	$2,783.6
Benefits	453.0	461.4	469.0	497.2	527.0
Contractual Services	392.8	372.2	400.7	408.7	416.9
Commodities and Equipment	82.3	81.5	83.9	85.6	87.3
Claims, Refunds, Judgments and Legal Fees	63.2	63.0	152.9	152.9	152.9
Delegate Agencies and Other Program Costs	138.2	137.0	141.0	141.0	141.0
Reimbursements and Financial Expenses	29.2	29.2	127.2	127.2	119.2
Miscellaneous	6.4	6.6	6.4	6.4	6.4
Transfers Out	30.5	30.5	94.3	82.3	82.3
Pension	136.8	136.8	414.2	454.5	700.8
Total Expenditures	$3,815.7	$3,815.2	$4,669.2	$5,006.7	$5,017.3
Gap (Revenues Less Expenditures)	$ 0.0	$ 26.5	($ 838.2)	($1,187.8)	($1,156.8)

Source: City's 2020 Budget Forecast. As noted above, the above revenue and expenditure projections were prepared before development of the City's 2020 budget. For discussion of the measures utilized to close the 2020 budget gap see "FINANCIAL DISCUSSION AND ANALYSIS – Corporate Fund Financial Forecasts and Budget Gaps – City's 2020 Budget" herein.

The majority of the projected expense increases in 2020 are personnel, pension and debt service. See "FINANCIAL DISCUSSION AND ANALYSIS – Corporate Fund Financial Forecasts and Budget Gaps – City's 2020 Budget" herein. These costs are also the primary driver of growth in Corporate Fund expenses in 2021 and 2022 as shown in the gap projections for those years. The 2020 Budget Forecast discusses three revenue and expense scenarios for 2021 and 2022: a base outlook, a negative outlook, and a positive outlook. The projected gap in each of the scenarios highlights expenditure growth relative to revenue growth.

Base Outlook. The base outlook projects overall Corporate Fund revenue growth to be relatively flat compared to the prior year in both 2021 and 2022, resulting in total Corporate Fund revenues of $3,818.8 million and $3,860.5 million, respectively. The City takes a conservative approach to these projections and assumes that the economy will continue to experience modest growth going forward.

Corporate Fund expenditures growth is projected to outpace Corporate Fund revenue growth during this period, due largely to growth in wages and other personnel-related costs, as well as increasing pension and debt obligations. In 2021 and 2022, expenditures are projected to increase by approximately 7.4 percent over 2020 costs. In 2021, the projected expenditures reach $5,006.7 million, and in 2022, expenditures are projected to increase to $5,017.3 million.

Under the base outlook, most non-personnel categories of expenditures, including motor fuel and other miscellaneous expenses are assumed to grow at historical average rates. Projections of salary, wages and healthcare expenditures, the largest portion of the City's operating expenses, are based on the assumption that the number of full-time equivalent positions will remain stable and that the costs associated with these positions will experience growth in line with long-term, historical trends.

Negative Outlook. The negative outlook presents a picture of City finances under unfavorable economic conditions with low to negative growth in economically sensitive revenues, and expenditures growing at a significantly higher rate. Total Corporate Fund revenues in 2021 under this scenario are projected to be $3,667.0 million and $3,697.0 million in 2022.

Assuming a similarly negative outlook for expenditures, in which City spending increases more rapidly over the next three years, Corporate Fund operating expenditures are driving the large operating shortfall. Driven by personnel, costs in 2021 and 2022 would significantly outpace revenues, growing at an average annual rate of roughly 13.2 percent to $5,288.0 million in 2021 and another 2.8 percent to $5,438.2 million in 2022. Most categories of expenditures are assumed to grow at the rates seen during their fastest period of historical growth in the past decade. Under the negative outlook, the City's operating budget shortfall would grow to $1,621.0 million in 2021 and $1,741.3 million in 2022.

Positive Outlook. The positive outlook assumes that the economy will grow at a slightly faster rate over the next three years resulting in modest revenue growth in economically sensitive revenues and slower average annual growth rate in expenses. The positive outlook projects a smaller Corporate Fund revenue reduction in 2021 and stronger growth in 2022, resulting in total Corporate Fund revenues of $3,916.5 million in 2021 and $3,962.6 million in 2022.

Under this positive outlook, the City can limit its future average annual growth rate, keeping expenditures lower than the base outlook. Total Corporate Fund expenditures grow to $4,817.5 million in 2021 and $4,761.6 million in 2022. Under this scenario, wage and salary costs experience a lower rate of growth, and healthcare costs grow at a lower rate than in the base outlook. This scenario also assumes costs associated with settlements and judgments are mitigated through risk management efforts.

Under a positive outlook with the ability to control expenditures, coupled with moderate revenue growth, the budget deficit in 2021 is projected to be $901.1 million and $799.0 million in 2022.

City's 2020 Budget

As described under the preceding caption, based on revenue and expenditure projections of existing operations, the City estimated a preliminary 2020 Corporate Fund gap of $838.2 million. This increased Corporate Fund gap over the City's prior fiscal year is driven by several factors, including a $312 million increase in personnel costs, a $277 million increase in pension costs, a $98 million increase in debt obligations, a $90 million increase in settlement and judgments, and $61 million net increase in other costs.

The 2020 City budget adopted by the City Council on November 26, 2019 reflects, for the first time, statutorily required contributions to the police and fire pension funds based on prescribed actuarial calculations. Further, the $277 million increase in employer-required pension contributions represents the largest one-year increase in pension contributions in the City's history. See "PENSION BENEFITS PROVIDED BY THE CITY – *Determination of City's Contributions*" below.

The $838.2 million budget gap is closed in the 2020 budget through $587.6 million in savings and efficiencies, $302.2 million in increased revenues offset by $51.8 million in increased investments. Approximately 61 percent of the budget gap closing solutions described below are structural solutions that will contribute to closure of the out-year budget gaps.

The additional $51.8 million in new expenditures, include expenditures to address affordable housing and homelessness, violence prevention, mental health needs, mitigating congestion and improving mobility management, resident engagement and operational improvements. These increases support the Mayoral priorities and initiatives as described in "THE CITY – Mayoral Priorities and Initiatives."

Nearly $587.6 million in savings, efficiencies, and reforms are included in the 2020 budget. Expenditure reductions incorporated in the 2020 budget include the following:

- $210 million in savings from the full implementation of the Financing Plan
- $188 million in reductions from various departments as a result of zero-based budgeting and improved fiscal management, including reduced settlements and judgments due to more recent developments, and a slowdown in the pace of hiring back to the 2019 budgeted levels
- $60 million from reimbursement of pension contribution costs from CBOE for a portion of the employer contribution related to CBOE employees belonging to MEABF (herein defined)
- $43 million in fund balance use, consistent with the fund balance reserve policy – see "FINANCIAL DISCUSSION AND ANALYSIS – Fund Stabilization"
- $39 million in fund balance sweeps in connection with closure of funds that are no longer being used
- $25 million in savings from proactively stepping up collection efforts from City debtors by identifying bad debt accounts most likely to pay
- $20 million of savings from the elimination of vacant positions
- $3 million in departmental mergers – see "THE CITY – Mayoral Priorities and Initiatives"

2020 Corporate Fund revenues are estimated to increase $302.2 million over the 2019 budgeted amount. Expected sources of increased 2020 Corporate Fund revenues include the following:

- Ground Emergency Medical Transportation ("*GEMT*") offers reimbursements from Medicaid for private and public emergency medical services ("*EMS*") agencies. For fiscal year 2020, the City expects an increase to GEMT reimbursements received by the Illinois Department of Healthcare and Family Services ("*HFS*"). OBM and the City Department of Finance have worked with the Illinois Fire Chiefs Association and HFS in an effort to maximize potential future reimbursement for emergency transportation services provided across the State. OBM and HFS have conducted an analysis on the expected increase in reimbursements to the City, which is anticipated to result in providers receiving closer to a 50 percent reimbursement of the total cost for eligible services. The 2020 budget includes an increase of $133 million in reimbursements anticipated in 2020. Of this amount, $90 million is a structural revenue source and $43 million is expected to be a one-time receipt.
- The City will charge a higher reimbursement cost for ambulance fee services that more closely represents cost of those services, which is expected to generate $30 million in revenues in fiscal year 2020.
- Under the 2020 budget, Ground Transportation Tax ("*GTT*") revenues are expected to increase by approximately $40 million, with approximately 46 percent of new revenues coming from downtown area taxes where concentration of trips is approximately 28.5 times the Citywide average.

- Targeted parking meter rate increases and the addition of new metered parking spaces are expected to result in an approximately $7 million decrease in annual payments owed under the Metered Parking Concession Agreement (herein defined).
- A restaurant tax was increased by 0.25 percent which is expected to generate approximately $20 million in additional revenue.
- An increase in the library levy is expected to generate approximately $18 million of new revenues as well as approximately $31 million in incremental TIF surplus over the fiscal year 2019 amount.
- Effective January 1, 2020 the lease transaction tax levied on cloud services will be adjusted from 5.25 percent to 7.25 percent and is expected to generate approximately $17 million in new revenues.
- Other new revenues of $5.5 million include a new cannabis tax which is expected to generate approximately $3.5 million in new revenue in the fiscal year 2020 budget. Of this amount, the existing sales tax is expected to account for approximately $2.5 million and a dedicated cannabis tax is expected to account for approximately $1 million.

The table below summarizes the revenue and expense assumptions of the adopted City 2020 budget.

Corporate Fund Revenues and Expenditures – 2020 City Budget[(1)]
($ in millions)

	2020 Projected	2020 Budget	Change
Revenues			
Local Tax Revenue	$1,710.2	$1,790.3	$ 80.1
Proceeds and Transfers In	645.7	642.5	(3.2)
Intergovernmental Revenue	433.2	433.2	$0.0
Local Non-Tax Revenue	1,003.9	1,472.2	468.3
Prior Year Assigned and Unassigned Fund Balance	38.0	81.0	43.0
Total Revenues	$3,831.0	$4,419.2	$588.2
Expenditures			
Personnel Services	$2,779.6	$2,607.9	($171.7)
Benefits	469.0	475.4	6.4
Contractual Services	400.7	397.4	(3.3)
Commodities and Equipment	83.9	72.2	(11.7)
Claims, Refunds, Judgments and Legal Fees	152.9	141.6	(11.3)
Delegate Agencies and Other Program Costs	141.0	208.0	67.0
Reimbursements and Financial Expenses	127.2	17.7	(109.5)
Miscellaneous	6.4	158.3	151.9
Transfers Out	94.3	5.1	(89.2)
Pension	414.2	335.5	(78.7)
Total Expenditures	$4,669.2	$4,419.2	($250.0)
(Revenues Less Expenditures)	($838.2)	$0.0	$838.2

Source: City's 2020 budget.
(1) Totals may not add due to rounding.

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 of the Chicago Skyway ("*Skyway Lease*") and the long-term concession for the City's metered parking system ("*Metered Parking System Concession*"). 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 Concession 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. 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. However, starting in 2009, the City began utilizing these long-term reserves to subsidize the City's operating budget. Utilizing these reserves for operations reduced the principal balance substantially below the initial deposit and accordingly reduced the interest earnings generated by the reserves. 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, 2009 through 2018.

Asset Lease and Concession Reserves 2009 – 2018
($ in millions)

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
$1,304.5	$877.9	$718.5	$624.8	$590.2	$626.0	$624.5	$640.2	$668.3	$652.5

Source: City CAFR for the respective years.

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 or provide an indefinite line of credit. The City has set aside $5 million in 2015, 2016, 2017, and 2018 for the Operating

Liquidity Fund, which is reflected in the City CAFR in the assigned fund balance. The City will also set aside $10 million in 2019, for a total of $30 million.

Unassigned Fund Balance

Surplus resources identified throughout the annual financial audit process make up the unassigned fund balance. The chart below provides the year-end balance as recorded in the City CAFRs for the years ended December 31, 2014 through 2018.

Unassigned Fund Balance 2014 – 2018
($ in millions)

2014	2015	2016	2017	2018
$51.6	$93.0	$153.7	$155.5	$161.9

Source: City CAFR for the respective years.

The growth in the unassigned fund balance 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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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

CAPITAL IMPROVEMENT PROJECTS[1]

Project	Description
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.

(1) 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 36,606 budgeted full-time equivalent positions in 2020, a decrease of approximately 8 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 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 2009 forward.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

ASSESSED, EQUALIZED ASSESSED AND ESTIMATED VALUE OF ALL TAXABLE PROPERTY 2009 – 2018
($ in thousands)

Tax Levy Year[2]	Assessed Value[1] Class 2[3]	Class 3[4]	Class 5[5]	Other[6]	Total	State Equalization Factor[7]	Total Equalized Assessed Value[8]	Total Direct Tax Rate[8]	Total Estimated Fair Cash Value[9]	Total Equalized Assessed Value as a Percentage of Total Estimated Fair Cash Value
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	27,469,659	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	11,369,258	603,849	30,762,391	2.8032	74,016,506	1.752	293,121,793	25.4
2017	17,169,637	1,844,745	11,431,099	524,639	30,970,120	2.9627	76,765,303	1.770	306,074,351	25.1
2018[10]	19,759,176	2,329,709	13,321,105	598,848	36,008,838	2.9109	86,326,179	1.676	N/A	–

(1) Source: Civic Federation for Levy Year 2009 and Cook County Assessor's Office for Levy Years 2010-2018. Excludes the portion of the City in DuPage County.
(2) Taxes for each year become due and payable in the following year. For example, taxes for the 2018 tax levy became due and payable in 2019.
(3) Residential, six units and under.
(4) Residential, seven units and over and mixed use.
(5) Industrial/commercial.
(6) Vacant, not-for-profit and industrial/commercial incentive classes.
(7) Source: IDOR.
(8) Source: Cook County Clerk's Office. Calculations for Equalized Assessed Value are net of exemptions and exclude the portion of the City in DuPage County. Calculations also include assessment of pollution control facilities and railroad property and the tax rate include levies of the City and the Chicago Public Library.
(9) Source: The Civic Federation. Excludes railroad property, pollution control facilities and the portion of the City in DuPage County.
(10) Certain information for 2018 was not available from the Civic Federation at time of publication.

PROPERTY TAXES FOR ALL CITY FUNDS, COLLECTIONS AND ESTIMATED ALLOWANCE FOR UNCOLLECTIBLE TAXES 2009 – 2018[1]
($ in thousands)

		Collections within Fiscal Year			Total Collections to date			
Tax Levy Year[2]	Total Tax Levy for Fiscal Year [3][4]	Amount	Percentage of Levy	Collections in Subsequent Years	Amount	Percent of Total Tax Collections to Tax Levy	Estimated Allowance for Uncollectible Taxes	Net Outstanding Taxes Receivable
2009	$ 834,109	$ 700,579	84.0%	$98,871	$ 799,450	95.8%	$34,659	$ –
2010	834,089	790,141	94.7	13,750	803,891	96.4	30,198	–
2011	833,948	800,582	96.0	2,608	803,190	96.3	30,758	–
2012	834,636	804,245	96.4	6,963	811,208	97.2	23,428	–
2013	838,254	807,985	96.4	8,937	816,922	97.5	21,332	–
2014	861,416	832,042	96.6	10,285	842,327	97.8	19,089	–
2015	1,186,625	1,156,428	97.5	13,181	1,169,609	98.6	16,710	306
2016	1,296,899	1,271,653	98.1	13,372	1,285,025	99.1	11,637	237
2017	1,358,882	1,329,373	97.8	15,870	1,345,243	99.0	13,502	137
2018	1,446,971	1,393,822	96.3	N/A	1,393,822	96.3	51,197[5]	1,952

(1) Source: Cook County Clerk's Office.
(2) Taxes for each year become due and payable in the following year. For example, taxes for the 2018 tax levy become due and payable in 2019.
(3) Does not include levy for Special Service Areas and Tax Increment Projects.
(4) Does not include the levy for the Schools Building and Improvement Fund, which is accounted for in an agency fund.
(5) Estimated Allowance for Uncollectible Taxes for the year 2018 is estimated at 3.7 percent of Total Tax Levy for that Fiscal Year.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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 (as hereinafter defined) are set forth in the following tables for the years indicated.

PROPERTY TAX LEVIES 2014 – 2018[1]
($ in thousands)

	2014	2015	Change (%)	2016	Change (%)	2017	Change (%)	2018	Change (%)
Note Redemption and Interest[2] ...	$ 97,061	$ 97,708	0.67%	$ 80,359	(17.76)%	$ 80,420	0.08%	$ 85,920	6.84%
Bond Redemption and Interest....	412,139	411,730	-0.10	430,584	4.58	439,379	2.04	455,537	3.68
PABF[3]	136,680	361,987	164.84	455,355	25.79	490,685	7.76	546,622	11.40
MEABF[3]......	123,239	124,706	1.19	124,706	0.00	124,706	0.00	124,706	0.00
FABF[3]	81,363	179,424	120.52	194,825	8.58	212,622	9.13	223,116	4.94
LABF[3]	10,934	11,070	1.24	11,070	0.00	11,070	0.00	11,070	0.00
Total.............	$ 861,416	$ 1,186,625	37.75%	$ 1,296,899	9.29%	$ 1,358,882	4.78%	$ 1,446,971	6.48%

Source: Cook County Clerk's Office.

[1] Does not include the levy for the School Building and Improvement Fund which is accounted for in an agency fund.

[2] Includes Corporate, Chicago Public Library Maintenance and Operations, Chicago Public Library Building and Sites, and City Relief Funds.

[3] For information regarding the City's unfunded pension obligations, see "PENSION BENEFITS PROVIDED BY THE CITY – Funded Status of the Retirement Funds."

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

PROPERTY TAX RATES PER $100
OF EQUALIZED ASSESSED VALUATION 2009 – 2018

Tax Levy Year	Tax Extension(1)(2) (in thousands)	Bond, Note Redemption and Interest(3)	Policemen's Annuity and Benefit	Municipal Employees' Annuity and Benefit	Firemen's Annuity and Benefit	Laborers' and Retirement Board Employees' Annuity and Benefit	Total
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	1.770
2018	1,446,971	0.626410	0.633142	0.144445	0.258431	0.012822	1.676

Source: Cook County Clerk's Office.
(1) Does not include levy for Special Service Areas and net of collections for TIF Districts.
(2) Does not include the levy for the Schools Building and Improvement Fund, which is accounted for in an agency fund.
(3) Includes rates from the Chicago Public Library Bond, Note Redemption and Interest Fund.

As shown above, the aggregate property tax levies over the period 2009 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 increases 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. 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.

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 2011 through 2020.

TIF SURPLUS 2011 – 2020
($ in millions)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Declared.......	$188.0	$82.8	$25.0	$39.1	$39.5	$111.8	$172.7	$171.1	$157.5	$294.6
Expiration	15.1	13.7	8.4	25.4	44.3	–	–	–	2.1	2.6
Repeal	73.3	–	0.5	–	–	–	–	–	–	–
Termination..	–	–	9.6	0.6	0.5	1.4	4.0	–	16.1	3.0
Total	$276.4	$96.5	$43.5	$65.1	$84.3	$113.2	$176.7	$171.1	$175.7	$300.2

Source: City of Chicago, OBM.

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 million provided approximately $41 million to the City. The 2019 TIF Surplus was $176 million, which yielded the City approximately $42 million. The 2020 TIF Surplus is expected to be $300.2 million, which is expected to yield the City approximately $72 million.

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 is considered to be "New Property" for levy purposes. This practice yielded incremental EAV available to the City of $16.7 million from one TIF District in 2015, $37.5 million from three TIF Districts in 2016, $17.0 million from two TIF Districts in 2017, $285.8 million from seven TIF Districts in 2018, and $1.7 million from four TIF Districts in 2019. The City is expected to continue to benefit from this "New Property" levy increase on an annual basis as TIF Districts are repealed, terminated, or expire.

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. The major governmental entities, or overlapping taxing districts, are the CBOE; The County of Cook, 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 Forest Preserve District of Cook County ("*Forest Preserve*").

These governmental entities, other than Cook County, 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 2009 to 2018.

COMBINED PROPERTY TAX RATES OF THE CITY AND OTHER MAJOR GOVERNMENTAL UNITS PER $100 OF EQUALIZED ASSESSED VALUATION 2009 – 2018

Tax Levy Year	City[1]	City of Chicago School Building & Improvement Fund	Chicago Board of Education	City Colleges of Chicago	Chicago Park District[2]	Metropolitan Water Reclamation District	Forest Preserve District of Cook County	Cook County	Total
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	0.358	0.402	0.062	0.496	7.266
2018	1.676	0.136	3.552	0.147	0.330	0.396	0.060	0.489	6.786

Source: Cook County Clerk's Office.
(1)Includes the tax rates of both the City and the Chicago Public Library.
(2)Includes the tax rates of the Chicago Park District and the Chicago Park District Aquarium and Museum Bond Fund.

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 2009 through 2018 are set forth below. The debt numbers for Cook County, the Forest Preserve and MWRD include only a portion of the long-term general obligation debt of such entities and was calculated on a per capita basis based on the percentage of the population that lives in Chicago.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

LONG-TERM GENERAL OBLIGATION DEBT OF THE CITY AND BONDED DEBT OF OVERLAPPING TAXING DISTRICTS AS OF DECEMBER 31 OF THE YEARS 2009 – 2018 ($ in thousands, except Net Direct Debt Per Capita)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CBOE[1]	$ 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	$ 8,409,348
Park District	814,290	944,565	924,170	874,710	865,665	844,460	840,460	863,580	821,000	827,500
City Colleges of Chicago	–	–	–	–	250,000	250,000	245,995	241,830	315,560	321,437
Cook County[2]	1,436,563	1,617,172	1,786,751	1,783,542	1,715,011	1,670,473	1,702,207	1,670,215	1,595,048	1,456,892
Forest Preserve[2]	50,670	48,419	45,706	92,847	86,091	85,454	85,372	85,253	77,873	76,838
MWRD[2]	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	1,458,129
Net Overlapping Long-term Debt	8,539,070	9,158,243	9,877,084	10,384,421	10,338,490	10,113,509	10,397,181	11,232,989	12,407,225	12,550,144
City of Chicago GO Bonds	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	8,135,257
Net Direct and Overlapping long-term debt	$ 15,405,340	$ 16,486,695	$17,505,306	$ 18,324,103	$ 18,008,788	$18,453,135	$ 19,439,073	$ 20,176,903	$ 22,016,850	$ 20,685,401
Net Direct Debt Per Capita[3]	$ 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	$ 7,673.77
Total Est. Fair Cash Value[4]	$280,288,730	$231,986,397	$222,856,064	$206,915,723	$236,695,475	$255,639,792	$278,027,604	$293,121,793	$306,074,351	$306,074,351
Ratio of Debt to Fair Cash Value[5]	5.50%	7.11%	7.85%	8.86%	7.61%	7.22%	6.99%	6.88%	7.51%	6.76%

Source: Debt of overlapping taxing districts from the respective districts.

Note: This table includes certain governmental entities that operate as separate, independent units of government and have the authority to issue bonds and levy taxes on real property within the City of Chicago. The net direct long-term debt amount provided by each entity is comprised solely of the tax-levy supported obligations. The table does not include non-property tax levy backed debt issued by the listed entities.

(1) CBOE debt includes amounts issued under the CBOE's Capital Improvement Tax Bond program, which are not unlimited tax general obligation bonds but are supported by a dedicated tax levy, as well as amounts due under Public Building Corporation lease obligations.

(2) For the outstanding general obligation debt of Cook County, the Forest Preserve and MWRD, the amounts shown in the table are the total amounts of general obligation debt outstanding of the respective taxing district multiplied by the population of the City and divided by the population of Cook County. The population of Cook County was used to calculate the amount for the Forest Preserve, which has boundaries coterminous with Cook County, and the amount for MWRD which is substantially coterminous with Cook County. The specific calculations for each year may be found in Table 18 of each year's respective City CAFR.

(3) Population source: U.S. Census Bureau. For 2009, per capita is based on the 2000 population of 2,896,016. From 2010 through 2018, per capita is based on the 2010 population of 2,695,598.

(4) Source: The Civic Federation. Excludes railroad property, pollution control facilities and the portion of the City in DuPage County. Information for 2018 is based on 2017 estimated fair cash value.

(5) Calculations for 2017 and 2018 are based on 2017 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. The amounts shown as "Total" may not add due to rounding.

CITY AND OVERLAPPING TAXING DISTRICTS
PENSION FUNDS SUPPORTED BY LOCAL GOVERNMENT REVENUES[1]

	Unfunded Actuarial Accrued Liability[2] ($ in millions)	Unfunded Liability Per Capita[3]	Funded Ratio
Overlapping Taxing Districts			
MWRD	$ 1,130.9	$ 218	56.5%
Cook County	6,791.0	1,311	60.8
Forest Preserve	133.8	26	60.3
CBOE[4]	12,230.4	4,520	47.4
Park District	775.5	287	32.1
Subtotal	$ 21,061.5	$ 6,361	
City Pension Funds	$ 29,175.6	$10,782	24.9%
TOTAL	$ 50,237.1	$17,143[5]	

Source: Most recent actuarial valuation of the pension fund of the overlapping taxing district.

(1) 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.

(2) The Unfunded Actuarial Accrued Liability is calculated based on the actuarial value of assets.

(3) Per capita amounts are based on the U.S. Census Bureau's 2018 population estimate of the City (2,705,994) and of Cook County (5,180,493) 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 percent with the boundaries of Cook County, measured by EAV.

(4) CBOE makes contributions to the Chicago Teachers' Pension Fund. CBOE does not make contributions to MEABF (as defined herein) for its employees that are members of MEABF, though the City expects to be reimbursed for a portion of the City's contributions to MEABF made with respect to CBOE employees as described under "PENSION BENEFITS PROVIDED BY THE CITY – Determination of City's Contributions" herein.

(5) 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 the 99-year Skyway Lease of the Chicago Skyway, 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 Concession. See " – Fund Stabilization –*Asset Lease and Reserves*" above.

Under each of the Skyway Lease, the Metered Parking Concession Agreement and the Parking Garages Lease Agreement, 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 Metered Parking Concession Agreement includes provisions by which the City can be required to compensate CPM if City decreases the value of the Metered Parking System and/or fails to increase the value of the Metered Parking System as provided in the Metered Parking Concession Agreement. Pursuant to these provisions, the City made payments to CPM totaling $13.3 million in 2019. For years 2014 – 2018, these payments totaled $6.7 million, $7.6 million, $13.2 million, $19.5 million, and $19.8 million, respectively. Changes to the way the City manages the Metered Parking Concession Agreement are anticipated to result in the reduction and eventual elimination of these payments within the next three years.

The Metered Parking Concession Agreement also 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. Changes to State law governing disabled parking placards have resulted in a significant reduction of these payments. Since 2014, only one payment of $171,456 has been required.

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 baseball stadium (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 State Income Tax revenue distributed from the LGDF, 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 State Income Tax revenue distributed from the LGDF. 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 State Income Tax revenue distributed from the LGDF and is the only such deduction for a deficiency in the ISFA Hotel Tax made to date. The future sufficiency of ISFA Hotel Tax collections to repay advanced amounts is 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 and prior to implementation of the Financing Plan, the Corporation has outstanding bonds in an aggregate principal amount of $2,641,865,000, 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). The City expects that the Corporation will issue bonds to implement the Financing Plan contemporaneously with the City's issuance of the 2020A Bonds. See "PLAN OF FINANCING." 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, 2018 – 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.

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; www.chipabf.org; www.labfchicago.org; and 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, 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 1–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 an active member of the Retirement Funds. 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 or a reciprocal fund, as described in the Pension Code. Employees who became members of the Retirement Funds (or a reciprocal fund) 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 and LABF, certain employees of the CBOE who are members of MEABF or LABF 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, 2018, was as follows:

TABLE 1 – MEMBERSHIP

Retirement Fund	Active Members	Inactive/ Entitled to Benefits	Retirees and Beneficiaries	Totals
MEABF	31,285	17,575	25,577	74,437
PABF	13,438	721	13,631	27,790
FABF	4,487	92	5,022	9,601
LABF	2,715	1,489	3,688	7,892
Total	51,925	19,877	47,918	119,720

Source: Retirement Fund Financial Statements for each of the Retirement Funds for the fiscal year ended December 31, 2018.

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, 2009 – 2018

Fiscal Year	MEABF	FABF	LABF	PABF
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	18.7	16.7
2018	(5.7)	(6.6)	(6.7)	(5.4)
10-Year Geometric Mean Return	8.3	9.2	8.2	8.3
Assumed Rate(1)	7.0	6.75	7.25	7.25

Source: For FABF, LABF and PABF, the respective Retirement Fund Financial Statements for the fiscal years 2009-2018. For MEABF, the MEABF Retirement Fund Financial Statements for the fiscal years ended December 31, 2017 and December 31, 2018.

(1) Reflects the assumed rate of return in the respective Actuarial Valuations of the Retirement Funds measured as of December 31, 2018, as discussed in further detail under "Actuarial Assumptions – *Assumed Investment Rate of Return*" below. PABF reduced the assumed rate of return to 6.75% for future Actuarial Valuations beginning with the Actuarial Valuation for the fiscal year ending December 31, 2019.

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

* 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.

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).

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 remaining levy years of 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 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 remaining levy years of 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 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 Available 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 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 General 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 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 2020 City budget includes an expected reimbursement of $60 million in 2020 by the CBOE to the City for a portion of the employer contribution related to the CBOE employees who are members of MEABF. See "FINANCIAL DISCUSSION AND ANALYSIS – Corporate Fund Financial Forecasts and Budget Gaps – City's 2020 Budget" herein.

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.

During fiscal years 2018 and 2019, the Retirement Funds each submitted claims to the State Comptroller pursuant to the Recapture Provisions for alleged shortfalls in contributions for contribution years 2016, 2017 and 2018. Such alleged shortfalls arose from the loss in collection of the Pension Levy. The City contested those claims based on the City's interpretation of the Pension Code. Specifically, the City argued that the applicable Pension Code provisions did not require the City to cover the loss in collection of the Pension Levy. In October 2019, the Circuit Court of Cook County, Illinois (the "*Circuit Court*") ruled against the City, and the City decided not to appeal that decision. The total amount diverted to the Retirement Funds pursuant to the Recapture Provisions for contribution years 2016, 2017 and 2018 was approximately $42 million.

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 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 2009-2014 is shown in TABLE 3 – "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.

TABLE 3 – INFORMATION REGARDING CITY CONTRIBUTIONS[1] – AGGREGATED

Fiscal Year	Actuarially Required Contribution/ADC	Actual Employer Contribution[2]	Percentage of Actuarially Required Contribution Contributed
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[3]	1,866,097	973,669[4]	52.2[4]
2016[3]	2,198,449	590,262[4]	26.9[4]
2017[3]	2,413,466	1,020,254	42.3
2018	2,545,862	1,236,737	48.6

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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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(1)

Fiscal Year	Actuarial Value of Assets(2)	Fair Value of Net Assets	Actuarial Value as a Percentage of Fair Value
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
2018	9,656,442	8,949,746	107.9

Source: 2009 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 2018 is from the Actuarial Valuations of the Retirement Funds for the fiscal years 2011 through 2018.

(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 2018 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 2009-2018" 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.

TABLE 5 – FINANCIAL CONDITION OF THE MEABF
FISCAL YEARS 2009 – 2018
($ IN THOUSANDS)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beginning 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
Income										
– Employee Contributions	130,981	133,300	132,596	130,266	131,532	129,972	131,428	130,391	134,765	138,400
– City Contributions	157,698	164,302	156,525	158,381	157,705	158,798	157,717	157,444	261,764	349,574
– Investment Income(1)	778,562	638,569	31,583	589,198	735,272	283,282	114,025	281,419	610,514	(204,974)
– Miscellaneous Income	0	24	0	0	0	0	0	0	5,394	0
Total	$ 1,067,241	$ 936,195	$ 320,705	$ 877,845	$ 1,024,509	$ 572,052	$ 403,170	$ 569,254	$ 1,012,437	$283,000
Expenditures										
– Benefits and Refunds(2)	632,864	660,081	695,674	741,583	779,003	807,674	834,527	867,397	888,173	916,199
– Administration	7,766	6,745	7,375	6,841	6,499	6,568	6,701	$ 7,057	6,473	6,639
Total	$ 640,630	$ 666,826	$ 703,050	$ 748,425	$ 785,502	$ 814,242	$ 841,228	$ 874,454	$ 894,646	$922,838
Ending Net Position (Fair Value)	$ 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	$ 3,914,180
Actuarial Value of Assets(3)	$ 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	$4,195,644
Actuarial Accrued Liabilities	10,830,119	11,828,666	12,292,930	13,475,376	13,828,920	12,307,094	14,647,115	15,055,349	16,282,396	16,808,614
UAAL (Fair Value)(4)	5,663,894	6,393,073	7,239,681	8,292,706	8,407,244	7,127,608	9,905,687	10,619,121	11,728,377	12,894,434
UAAL (Actuarial Value)(3)	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	12,612,970
Funded Ratio (Fair Value)(4)	47.7%	46.0%	41.1%	38.5%	39.2%	42.1%	32.4%	29.5%	28.0%	23.3%
Funded Ratio (Actuarial Value)(3)	58.1%	50.8%	45.2%	37.6%	37.0%	40.9%	32.9%	30.5%	27.4%	25.0%

Source: 2009 and 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 2018 data is from the MEABF Retirement Fund Financial Statements for the fiscal years 2011 through 2018. 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 Ending Net Position at Fair Value.

TABLE 6 – FINANCIAL CONDITION OF THE PABF
FISCAL YEARS 2009 – 2018
($ IN THOUSANDS)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beginning 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	$3,121,413[5]
Income										
– Employee Contributions	95,614	108,402	98,222	95,892	93,329	95,676	107,626	101,476	103,011	107,186
– City Contributions	180,511	183,835	183,522	207,228	188,889	187,075	582,278	281,583	494,483	588,035
– Investment Income[1]	567,315	369,558	33,656	353,176	415,294	181,901	(5,334)	142,699	412,190	(137,977)
– Miscellaneous Income	799	20	104	423	479	740	3092	1,413	97	1,600
Total	$ 844,239	$ 661,815	$ 315,504	$ 656,719	$ 697,991	$ 465,392	$ 687,662	$ 527,171	$ 1,009,781	$558,844
Expenditures										
– Benefits and Refunds[2]	514,883	544,272	575,305	613,907	641,926	664,338	686,664	716,821	748,390	771,104
– Administration	4,304	3,925	4,359	4,888	4,298	4,241	4,063	4,280	4,345	4,065
Total	$ 519,187	$ 548,197	$ 579,664	$ 618,795	$ 646,224	$ 668,579	$ 690,727	$ 721,101	$ 752,735	$775,169
Ending Net Position (Fair Value)	$ 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	$2,905,088
Actuarial Value of Assets[3]	$ 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	$3,145,136
Actuarial Accrued Liabilities	8,736,102	9,210,056	9,522,395	10,051,827	10,282,339	11,334,799	11,651,188	12,856,550	13,093,883	13,214,658
UAAL (Fair Value)[4]	5,410,052	5,770,387	6,346,886	6,838,394	7,017,139	8,272,786	8,592,240	9,991,532	9,971,819	10,309,570
UAAL (Actuarial Value)[3]	4,851,124	5,491,101	6,077,705	6,902,898	7,228,457	8,380,480	8,464,764	9,804,493	9,989,893	10,069,522
Funded Ratio (Fair Value)[4]	38.1%	37.3%	33.4%	32.0%	31.8%	27.0%	26.3%	22.3%	23.8%	22.0%
Funded Ratio (Actuarial Value)[3]	44.5%	40.4%	36.2%	31.3%	29.7%	26.1%	27.4%	23.7%	23.7%	23.8%

Source: 2009 and 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 2018 is from the PABF Retirement Fund Financial Statements for the fiscal years 2011 through 2018. 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 Ending Net Position at Fair Value.
(5) Beginning net position was restated for Fiscal Year 2018.

TABLE 7 – FINANCIAL CONDITION OF THE FABF
FISCAL YEARS 2009 – 2018
($ IN THOUSANDS)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beginning 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
Income										
– Employee Contributions	41,605	41,730	51,918	56,718	42,520	48,056	46,554	48,960	47,364	45,895
– City Contributions	91,857	83,592	85,498	84,144	106,220	109,805	238,486	156,158	228,453	249,684
– Investment Income[1]	208,537	150,835	(22,434)	135,203	190,536	30,868	7,596	55,362	140,507	(58,049)
– Miscellaneous Income	36	30	17	8	(60)	7	7	5,526	86	54
Total	$ 342,035	$ 276,187	$ 114,999	$ 276,073	$ 339,216	$ 188,736	$ 292,643	$ 266,006	$ 416,410	$237,584
Expenditures										
– Benefits and Refunds[2]	201,146	217,565	223,580	233,840	251,819	266,365	280,398	288,876	306,098	324,662
– Administration	3,439	4,187	3,723	3,584	3,115	3,069	3,150	3,217	3,172	3,285
Total	$ 204,585	$ 221,752	$ 227,303	$ 237,424	$ 254,934	$ 269,434	$ 283,548	$ 292,093	$ 309,270	$327,947
Ending Net Position (Fair Value)	$ 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	$1,035,791
Actuarial Value of Assets[3]	$ 1,269,231	$ 1,198,114	$ 1,101,742	$ 993,284	$ 991,213	$ 988,141	$ 1,081,042	$ 1,074,858	$ 1,123,389	$1,130,370
Actuarial Accrued Liabilities	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	6,155,919
UAAL (Fair Value)[4]	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	5,120,128
UAAL (Actuarial Value)[3]	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	5,025,549
Funded Ratio (Fair Value)[4]	30.7%	30.3%	25.8%	25.7%	27.0%	23.9%	22.4%	20.2%	20.2%	16.8%
Funded Ratio (Actuarial Value)[3]	37.0%	32.8%	28.6%	24.7%	24.0%	22.8%	23.2%	21.3%	20.1%	18.4%

Source: 2009 and 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 2018 is from the FABF Retirement Fund Financial Statements for the fiscal years 2011 through 2018. 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 Ending Net Position at Fair Value.

TABLE 8 – FINANCIAL CONDITION OF THE LABF
FISCAL YEARS 2009 – 2018
($ IN THOUSANDS)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beginning 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	$1,267,555
Income										
– Employee Contributions	17,538	16,320	16,069	16,559	16,393	16,359	16,844	17,246	17,411	17,837
– City Contributions	17,190	17,939	15,359	14,415	14,101	14,520	14,567	14,443	35,457	47,844
– Investment Income(1)	237,102	193,187	(4,511)	173,460	207,344	53,393	(22,318)	57,998	207,982	(75,219)
– Miscellaneous Income	–	–	–	–	–	–	–	–	–	662
Total	$ 271,830	$ 227,446	$ 26,917	$ 204,434	$ 237,838	$ 84,272	$ 9,093	$ 89,687	$ 260,850	($8,876)
Expenditures										
– Benefits and Refunds(2)	123,817	129,297	136,533	142,215	147,108	150,018	154,683	156,523	157,050	160,061
– Administration	3,665	3,864	3,994	4,746	4,134	3,835	3,844	4,080	3,985	3,933
Total	$ 127,482	$ 133,161	$ 140,527	$ 146,961	$ 151,242	$ 153,853	$ 158,528	$ 160,603	$ 161,035	$163,994
Ending Net Position (Fair Value)	$ 1,332,928	$ 1,427,214	$ 1,313,604	$ 1,371,077	$ 1,457,673	$ 1,388,092	$ 1,238,657	$ 1,167,741	$ 1,267,555	$1,094,686
Actuarial Value of Assets(3)	$ 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	$1,185,292
Actuarial Accrued Liabilities	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	2,652,875
UAAL (Fair Value)(4)	642,821	602,811	839,250	965,112	925,826	719,018	1,229,089	1,341,532	1,311,189	1,558,189
UAAL (Actuarial Value)(3)	374,397	500,621	730,440	1,020,276	1,029,238	749,659	1,159,070	1,245,608	1,333,626	1,467,583
Funded Ratio (Fair Value)(4)	67.5%	70.3%	61.0%	58.7%	61.2%	65.9%	50.2%	46.5%	49.2%	41.3%
Funded Ratio (Actuarial Value)(3)	81.1%	75.3%	66.1%	56.3%	56.8%	64.4%	53.0%	50.4%	48.3%	44.7%

Source: 2009 and 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 2018 is from the LABF Retirement Fund Financial Statements for the fiscal years 2011 through 2018. 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 Ending Net Position at Fair Value.

TABLE 9 – FINANCIAL CONDITION OF THE RETIREMENT FUNDS COMBINED
FISCAL YEARS 2009 – 2018
($ IN THOUSANDS)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beginning 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	$,10,069,141
Income										
– Employee Contributions	285,738	299,752	298,805	299,435	283,774	290,063	302,452	298,073	302,551	309,318
– City Contributions	447,256	449,668	440,904	464,168	466,915	470,198	993,048	609,628	1,020,157	1,235,137
– Investment Income[1]	1,791,516	1,352,149	38,294	1,251,037	1,548,446	549,444	93,969	537,478	1,371,193	(476,219)
– Miscellaneous Income	835	74	121	431	419	747	3,099	6,939	5,577	2,316
Total	$ 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	$ 1,070,552
Expenditures										
– Benefits and Refunds[2]	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	$2,172,026
– Administration	19,174	18,721	19,451	20,059	18,046	17,713	17,758	18,634	17,975	17,922
Total	$ 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	$2,189,948
Ending Net Position (Fair Value)	$ 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	$8,949,746
Actuarial Value of Assets[3]	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	9,656,442
Actuarial Accrued Liabilities	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	38,832,066
UAAL (Fair Value)[4]	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	29,882,320
UAAL (Actuarial Value)[3]	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	29,175,624
Funded Ratio (Fair Value)[4]	43.6%	42.7%	37.9%	36.1%	36.8%	35.4%	30.2%	26.8%	26.8%	23.0%
Funded Ratio (Actuarial Value)[3]	52.3%	46.6%	41.4%	35.2%	34.3%	34.4%	31.1%	28.1%	26.5%	24.9%

Source: 2009 and 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 2018 is from the Retirement Fund Financial Statements for the fiscal years 2011 through 2018. 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 5 through 8 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 Ending Net Position at Fair Value.

TABLE 10 – SCHEDULE OF FUNDING PROGRESS – COMBINED FOR THE RETIREMENT FUNDS
FISCAL YEARS 2009 – 2018
($ IN THOUSANDS)

Fiscal Year	Actuarial Accrued Liability(1)	Actuarial Value of Assets(2)	Fair Value of Net Assets	UAAL (Actuarial)(3)	UAAL (Fair Value)(4)	Funded Ratio (Actuarial)(3)	Funded Ratio (Fair Value)(4)	Payroll	UAAL to Payroll (Actuarial)(3)	UAAL to Payroll (Fair Value)(4)
2009	$24,970,808	$13,051,349	$10,876,847	$11,919,459	$14,093,961	52.3%	43.6%	$3,172,716	375.7%	444.2%
2010	26,723,773	12,449,863	11,408,554	14,273,910	15,315,219	46.6	42.7	3,189,739	447.5	480.1
2011	27,820,098	11,521,139	10,536,135	16,298,961	17,283,963	41.4	37.9	3,261,021	499.8	530.0
2012	29,883,530	10,531,448	10,799,602	19,352,082	19,083,928	35.2	36.1	3,223,720	600.3	592.0
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	602.7
2014	30,087,596	10,339,208	10,665,598	19,748,388	19,421,998	34.4	35.4	3,340,174	591.2	581.5
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	668.0
2016	35,467,062	9,980,946	9,488,001	25,486,116	25,979,061	28.1	26.8	3,449,710	738.8	753.1
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	781.5
2018	38,832,066	9,656,442	8,949,746	29,175,624	29,882,320	24.9	23.0	3,608,098	808.6	828.2

Source: 2009 and 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 2018 data is from the Retirement Fund Financial Statements for each of the Retirement Funds for the fiscal years 2011 through 2018. Table may not add due to rounding.

(1) Does not include liability related to other post-employment benefits. See "OTHER POST-EMPLOYMENT BENEFITS PROVIDED TO MEMBERS" below.
(2) The actuarial value is determined by application of the Asset Smoothing Method as discussed in "– Actuarial Methods – *Actuarial Value of Assets*" above.
(3) For purposes of this column, "Actuarial" refers to the fact that the calculation was made using the Actuarial Value of Assets.
(4) For purposes of this column, "Fair Value" refers to the fact that the calculation was made using the fair value of Net Assets.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

TABLE 11 – NET PENSION LIABILITY
($ IN THOUSANDS)

	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a Percentage of Total Pension Liability
			MEABF	
2014	$ 12,307,094	$ 5,179,485	$ 7,127,609	42.1%
2015 (1)	23,358,870	4,741,427	18,617,443	20.3
2016	23,291,271	4,436,227	18,855,044	19.0
2017 (2)	16,282,396	4,554,018	11,728,378	28.0
2018	16,808,614	3,914,180	12,894,434	23.3
			LABF	
2014	$ 2,162,905	$1,388,095	$ 774,810	64.2%
2015 (1)	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)	2,630,107	1,267,554	1,362,553	48.2
2018	2,693,404	1,094,683	1,598,721	40.6
			PABF	
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
2018	13,313,258	2,905,180	10,408,078	21.8
			FABF	
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
2018	6,252,360	1,035,790	5,216,570	16.6
			Total	
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
2018	39,067,636	8,949,833	30,117,803	22.9

Source: City CAFR.

(1) The change in Total Pension Liability from Fiscal Year 2014 to Fiscal Year 2015 was due primarily to decreases in the respective Discount Rate under the New GASB Standards from 7.50% (MEABF) and 7.24% (LABF) for Fiscal Year 2014 to 3.73% (MEABF) and 4.04% (LABF) for Fiscal Year 2015. This change in the Discount Rate was primarily caused by Public Act 98-641, which made significant changes to the benefit and funding provisions of the Pension Code, being determined to be unconstitutional.

(2) The change in Total Pension Liability from Fiscal Year 2016 to Fiscal Year 2017 was due primarily to increases in the respective Discount Rate under the New GASB Standards from 3.91% (MEABF) and 4.17% (LABF) for Fiscal Year 2014 to 7.00% (MEABF) and 7.17% (LABF) for Fiscal Year 2017. This change in the Discount Rate was primarily caused by the enactment of P.A. 100-23, which made substantial changes to the funding provisions of the Pension Code. See " – Determination of City's Contributions" herein.

TABLE 12 – SENSITIVITY OF NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE(1)

	Fiscal Year 2018		
	1% Decrease	**Current**	**1% Increase**
MEABF			
Discount Rate	6.00%	7.00%	8.00%
Net Pension Liability	$15,018,712	$12,894,434	$11,132,768
LABF			
Discount Rate	6.11%	7.11%	8.11%
Net Pension Liability	$ 1,920,456	$ 1,598,721	$ 1,329,274
PABF			
Discount Rate	6.18%	7.18%	8.18%
Net Pension Liability	$11,955,692	$10,408,078	$ 9,104,012
FABF			
Discount Rate	5.61%	6.61%	7.61%
Net Pension Liability	$ 5,982,109	$ 5,216,570	$ 4,577,348

Source: City CAFR.
(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, 2018. 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.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

TABLE 13 – PROJECTION OF FUTURE FUNDING STATUS – MEABF(1)

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAL) (a-b)	Market Funded Ratio (b/a)	Employer Contribution(2)
2019	$17,212,931	$ 3,736,312	$13,476,619	21.7%	$ 344,000
2020	17,608,091	3,586,039	14,022,052	20.4	421,000
2021	17,987,487	3,462,694	14,524,793	19.3	499,000
2022	18,348,864	3,658,360	14,690,504	19.9	576,000
2023	18,695,237	3,844,846	14,850,391	20.6	944,559
2024	19,025,079	4,020,853	15,004,226	21.1	960,168
2025	19,335,975	4,184,260	15,151,715	21.6	975,735
2026	19,626,421	4,334,218	15,292,203	22.1	991,120
2027	19,864,630	4,469,792	15,394,838	22.5	1,006,682
2028	20,141,070	4,592,386	15,548,684	22.8	1,022,589
2029	20,363,350	4,700,796	15,662,554	23.1	1,038,866
2030	20,560,482	4,795,377	15,765,105	23.3	1,055,766
2031	20,731,330	4,875,951	15,855,379	23.5	1,073,367
2032	20,876,181	4,944,362	15,931,819	23.7	1,091,103
2033	20,996,471	5,004,337	15,992,134	23.8	1,129,631
2034	21,093,011	5,059,057	16,033,954	24.0	1,151,083
2035	21,165,735	5,110,588	16,055,147	24.1	1,173,537
2036	21,216,248	5,162,566	16,053,682	24.3	1,196,599
2037	21,245,495	5,218,659	16,026,836	24.6	1,220,963
2038	21,269,287	5,297,596	15,971,691	24.9	1,246,593
2039	21,278,536	5,393,619	15,884,917	25.3	1,273,807
2040	21,273,775	5,510,829	15,762,946	25.9	1,302,617
2041	21,257,359	5,654,640	15,602,719	26.6	1,332,102
2042	21,232,261	5,832,063	15,400,198	27.5	1,363,165
2043	21,202,063	6,051,033	15,151,030	28.5	1,395,847
2044	21,170,329	6,319,789	14,850,540	29.9	1,430,174
2045	21,137,294	6,643,431	14,493,863	31.4	1,466,045
2046	21,104,106	7,027,200	14,076,906	33.3	1,502,253
2047	21,072,752	7,478,351	13,594,401	35.5	1,539,483
2048	21,045,324	8,004,327	13,040,997	38.0	1,578,452
2049	21,024,109	8,613,531	12,410,578	41.0	1,618,714
2050	21,006,623	9,310,085	11,696,538	44.3	1,660,483
2051	20,993,380	10,100,230	10,893,150	48.1	1,702,356
2052	20,986,220	10,992,663	9,993,557	52.4	1,745,086
2053	20,985,992	11,996,007	8,989,985	57.2	1,789,120
2054	20,994,303	13,120,047	7,874,256	62.5	1,834,302
2055	21,006,683	14,369,255	6,637,428	68.4	1,880,817
2056	21,025,090	15,754,162	5,270,928	74.9	1,927,653
2057	21,050,112	17,285,317	3,764,795	82.1	1,975,581
2058	21,081,930	18,973,737	2,108,193	90.0	2,024,773
2059	21,120,592	19,008,533	2,112,059	90.0	400,391

Source: The Actuarial Valuation of MEABF as of December 31, 2018.

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[(1)]

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAL) (a-b)	Market Funded Ratio (b/a)	Employer Contribution[(2)]
2019	$2,709,358	$1,073,289	$1,636,069	39.6%	$ 60,000
2020	2,763,186	1,055,586	1,707,600	38.2	72,000
2021	2,814,931	1,042,604	1,772,327	37.0	84,000
2022	2,864,649	1,070,367	1,794,282	37.4	113,491
2023	2,911,999	1,095,408	1,816,591	37.6	133,623
2024	2,956,426	1,118,326	1,838,100	37.8	135,760
2025	2,997,407	1,138,864	1,858,543	38.0	138,069
2026	3,034,658	1,156,905	1,877,753	38.1	140,449
2027	3,067,539	1,172,044	1,895,495	38.2	142,932
2028	3,095,813	1,184,314	1,911,499	38.3	145,590
2029	3,120,040	1,194,389	1,925,651	38.3	148,234
2030	3,139,254	1,201,485	1,937,769	38.3	150,912
2031	3,153,806	1,206,266	1,947,540	38.2	153,774
2032	3,163,873	1,208,881	1,954,992	38.2	156,472
2033	3,169,350	1,209,360	1,959,990	38.2	159,115
2034	3,170,729	1,208,466	1,962,263	38.1	161,877
2035	3,168,719	1,207,173	1,961,546	38.1	164,772
2036	3,163,881	1,206,193	1,957,688	38.1	167,644
2037	3,156,776	1,206,377	1,950,399	38.2	170,605
2038	3,147,706	1,208,155	1,939,551	38.4	173,473
2039	3,136,889	1,212,048	1,924,841	38.6	176,373
2040	3,125,296	1,219,399	1,905,897	39.0	179,424
2041	3,114,040	1,231,642	1,882,398	39.6	182,565
2042	3,103,797	1,249,713	1,854,084	40.3	185,684
2043	3,095,115	1,274,557	1,820,558	41.2	188,865
2044	3,088,593	1,307,166	1,781,427	42.3	192,089
2045	3,084,354	1,347,998	1,736,356	43.7	195,237
2046	3,082,827	1,398,072	1,684,755	45.4	198,550
2047	3,084,515	1,458,352	1,626,163	47.3	201,905
2048	3,089,644	1,529,619	1,560,025	49.5	205,327
2049	3,098,534	1,612,800	1,485,734	52.1	208,834
2050	3,111,226	1,708,532	1,402,694	54.9	212,374
2051	3,127,190	1,816,889	1,310,301	58.1	215,906
2052	3,146,089	1,938,324	1,207,765	61.6	219,561
2053	3,167,892	2,073,551	1,094,341	65.5	223,257
2054	3,192,614	2,223,448	969,166	69.6	227,037
2055	3,220,156	2,388,799	831,357	74.2	230,872
2056	3,250,547	2,570,570	679,977	79.1	234,736
2057	3,284,097	2,770,134	513,963	84.3	238,686
2058	3,320,946	2,988,134	332,812	90.0	242,725
2059	3,360,702	3,024,632	336,070	90.0	44,332

Source: The Actuarial Valuation of LABF, as of December 31, 2018.
(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[(1)]

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAL) (a-b)	Market Funded Ratio (b/a)	Employer Contribution[(2)]
2019	$6,316,916	$1,027,192	$5,289,724	16.3%	$245,000
2020	6,471,743	1,128,874	5,342,869	17.4	371,258
2021	6,620,171	1,225,979	5,394,192	18.5	378,587
2022	6,763,226	1,322,820	5,440,406	19.6	387,261
2023	6,901,873	1,422,162	5,479,711	20.6	397,734
2024	7,035,933	1,524,778	5,511,155	21.7	408,823
2025	7,164,464	1,630,047	5,534,417	22.8	419,653
2026	7,286,322	1,736,492	5,549,830	23.8	429,431
2027	7,401,620	1,845,184	5,556,436	24.9	439,756
2028	7,511,898	1,959,499	5,552,399	26.1	451,668
2029	7,617,743	2,080,437	5,537,306	27.3	463,368
2030	7,718,852	2,206,745	5,512,107	28.6	473,139
2031	7,814,332	2,335,448	5,478,884	29.9	479,712
2032	7,904,188	2,466,899	5,437,289	31.2	486,027
2033	7,988,635	2,601,527	5,387,108	32.6	491,985
2034	8,068,122	2,739,825	5,328,297	34.0	497,366
2035	8,143,437	2,882,573	5,260,864	35.4	502,116
2036	8,215,102	3,030,453	5,184,649	36.9	506,422
2037	8,283,768	3,184,615	5,099,153	38.4	510,647
2038	8,350,115	3,346,524	5,003,591	40.1	515,100
2039	8,414,924	3,517,687	4,897,237	41.8	519,648
2040	8,478,771	3,699,171	4,779,600	43.6	523,995
2041	8,541,912	3,891,783	4,650,129	45.6	528,181
2042	8,604,704	4,096,831	4,507,873	47.6	532,611
2043	8,667,493	4,315,561	4,351,932	49.8	537,182
2044	8,730,575	4,549,367	4,181,208	52.1	542,034
2045	8,794,341	4,799,732	3,994,609	54.6	547,119
2046	8,859,207	5,068,374	3,790,833	57.2	552,585
2047	8,925,713	5,357,164	3,568,549	60.0	558,404
2048	8,994,601	5,667,766	3,326,835	63.0	564,086
2049	9,066,812	6,002,658	3,064,154	66.2	570,180
2050	9,143,163	6,364,193	2,778,970	69.6	576,538
2051	9,223,925	6,754,164	2,469,761	73.2	583,017
2052	9,309,365	7,174,377	2,134,988	77.1	589,576
2053	9,399,794	7,626,803	1,772,991	81.1	596,209
2054	9,495,669	8,113,657	1,382,012	85.4	602,916
2055	9,597,640	8,637,490	960,150	90.0	609,699

Source: The Actuarial Valuation of FABF, as of December 31, 2018.

(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[(1)]

Fiscal Year	Actuarial Accrued Liability (a)	Market Assets (b)	Market Unfunded Accrued Actuarial Liabilities (UAAL) (a-b)	Market Funded Ratio (b/a)	Employer Contribution[(2)]
2019	$13,595,697	$2,968,312	$10,627,385	21.8%	$ 579,000
2020	13,979,165	3,178,548	10,800,617	22.7	737,527
2021	14,362,560	3,399,343	10,963,217	23.7	793,981
2022	14,743,602	3,627,415	11,116,187	24.6	785,718
2023	15,120,207	3,860,247	11,259,960	25.5	806,254
2024	15,490,779	4,096,604	11,394,175	26.4	826,411
2025	15,852,987	4,334,339	11,518,648	27.3	845,973
2026	16,204,737	4,572,783	11,631,954	28.2	865,945
2027	16,544,479	4,812,436	11,732,043	29.1	886,970
2028	16,871,724	5,054,397	11,817,327	30.0	908,514
2029	17,186,716	5,300,344	11,886,372	30.8	930,549
2030	17,490,081	5,551,914	11,938,167	31.7	952,344
2031	17,782,714	5,811,959	11,970,755	32.7	974,888
2032	18,065,614	6,083,257	11,982,357	33.7	997,996
2033	18,339,748	6,369,750	11,969,998	34.7	1,022,631
2034	18,606,814	6,676,417	11,930,397	35.9	1,048,906
2035	18,869,349	7,007,870	11,861,479	37.1	1,075,378
2036	19,129,458	7,367,738	11,761,720	38.5	1,101,238
2037	19,387,968	7,754,672	11,633,296	40.0	1,122,164
2038	19,645,212	8,165,862	11,479,350	41.6	1,137,363
2039	19,902,327	8,604,005	11,298,322	43.2	1,152,084
2040	20,160,335	9,071,458	11,088,877	45.0	1,166,340
2041	20,420,529	9,572,426	10,848,103	46.9	1,181,497
2042	20,684,285	10,110,790	10,573,495	48.9	1,197,160
2043	20,952,276	10,689,840	10,262,436	51.0	1,213,195
2044	21,224,853	11,312,433	9,912,420	53.3	1,229,292
2045	21,501,625	11,980,837	9,520,788	55.7	1,245,407
2046	21,782,429	12,698,501	9,083,928	58.3	1,262,332
2047	22,067,112	13,468,883	8,598,229	61.0	1,279,887
2048	22,354,988	14,295,201	8,059,787	63.9	1,298,054
2049	22,644,618	15,179,961	7,464,657	67.0	1,316,619
2050	22,934,578	16,126,047	6,808,531	70.3	1,335,667
2051	23,224,288	17,137,534	6,086,754	73.8	1,355,165
2052	23,514,062	18,219,690	5,294,372	77.5	1,375,090
2053	23,804,913	19,378,819	4,426,094	81.4	1,395,387
2054	24,097,709	20,621,400	3,476,309	85.6	1,415,985
2055	24,393,268	21,954,316	2,438,952	90.0	1,436,911

Source: The Actuarial Valuation of PABF as of December 31, 2018.

(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 2020, the City budgeted for the enterprise funds to reimburse the City approximately $152.1 million, or 8.9 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, $44.4 million, (ii) from the Sewer Fund, $17.1 million, (iii) from the Chicago Midway International Airport Fund, $17.5 million, and (iv) from the Chicago O'Hare International Airport Fund, $71.0 million.

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.

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 by those Funds 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 by those Funds 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 to those retirees for their lifetime; and (ii) provide a modified healthcare plan with decreasing City contributions 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, but not retired before August 23, 1989 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 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 whether the obligation to make the subsidy payments to the members of the Pre-2003 Hiree Group falls to the Retirement Funds or the City has also been the 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 Retirement Funds are in the process of issuing retroactive subsidy payments (going back to January 1, 2017) to the eligible annuitants and have started making contemporaneous subsidy payments in the amounts provided in the 1983 and 1985 amendments. Plaintiffs appealed this decision and also the Circuit Court's ruling concerning what the execution date was. 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 in June 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 11 to the City CAFR for the fiscal year ended December 31, 2018, which is available on the City's website at 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, 2018.

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.

The City's net OPEB liability of the OPEB Benefits as of December 31, 2018, as determined in the Actuarial Valuation of that date, was $684.6 million. 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. Table 17 provides additional information regarding the calculation of the net OPEB liability.

TABLE 17 – SCHEDULE OF FUNDING PROGRESS(1)

Year	Total OPEB Liability	Plan Net Position	Net OPEB Liability	Plan Net Position as a Percentage of Total OPEB Liability
2017	$746,321	$0	$746,321	0.00%
2018	684,632	0	684,632	0.00

Sources: City CAFR for the respective years.
(1) In thousands of dollars.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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[1]

	Actual City Contribution
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
2018	70,578

Sources: City CAFR for the respective years.
[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

The City's long-term general obligation bonds, including the 2020A Bonds, are backed by the full faith and credit of the City. 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 a significant portion of 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 2020A 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 portion of the 2020A Bonds that are Designated TIF Bonds, the City's General Obligation Bonds (Modern Schools Across Chicago Program), Series 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.

Following are selected debt statistics regarding the City's long-term general obligation bonds from 2009 through 2018 presented in the City CAFR for 2018.

LONG-TERM GENERAL OBLIGATION SELECTED DEBT STATISTICS
2009 – 2018

Year	Aggregate Debt[1] ($ in thousands)	Total Est. Fair Cash Value[2] ($ in thousands)	Ratio of Debt to Fair Cash Value[2]	Per Capita[3]
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	306,074,351	3.1	3,564.93
2018	8,135,257	-	2.7	3,017.98

(1) Source: City of Chicago, Department of Finance.
(2) Source: The Civic Federation. Excludes railroad property, pollution control facilities and the portion of the City in DuPage County. Certain information for 2018 was not available from the Cook County Clerk's Office at time of publication. The ratio of debt to fair cash value for 2018 is based on 2017 estimated fair cash value.
(3) Population source: U.S. Census Bureau. The 2009 per capita calculation is based on the 2000 population of 2,896,016. From 2010 through 2018, per capita calculation is based on the 2010 population of 2,695,598.

The City's long-term general obligation debt service schedule for 2020 to 2048, following the implementation of the Financing Plan, is set forth in the table on the following page.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

LONG-TERM GENERAL OBLIGATION BONDS DEBT SERVICE SCHEDULE[1]

As of January 30, 2020, including the 2020A Bonds and including implementation of the Financing Plan

	2020A Bonds[2]			Tax Levy Bonds		Alternate Revenue Bonds[2]		Pledge Bonds		General Obligation Total		
Year	Principal	Interest	Capitalized Interest	Principal	Interest[3]	Principal	Interest[3]	Principal	Interest	Principal	Interest	Total
2020	$ 4,045,000	$ 21,383,657	($20,670,720)	$ 147,091,918	$ 390,282,214	$ 27,605,000	$ 6,693,394	$13,236,364	$1,996,394	$ 191,978,282	$ 399,684,940	$ 591,663,222
2021	4,170,000	23,068,900	(22,481,750)	166,979,240	383,145,413	29,520,000	5,302,556	13,236,364	1,526,180	213,905,603	390,561,299	604,466,902
2022	4,365,000	22,874,600	(22,481,750)	175,893,400	380,948,525	32,650,000	3,762,812	13,236,364	1,056,289	226,144,763	386,160,476	612,305,239
2023	3,890,000	22,670,950	-	195,619,320	373,342,711	16,375,000	2,071,298	13,236,364	586,398	229,120,683	398,671,358	627,792,041
2024	40,795,000	22,493,450	--	154,895,012	364,215,110	10,335,000	1,253,414	6,618,182	116,831	212,643,194	388,078,805	600,721,999
2025	51,420,000	20,457,600	--	160,375,971	357,391,113	5,625,000	730,050	--	--	217,420,971	378,578,763	595,999,734
2026	83,920,000	17,890,500	--	145,378,163	350,284,864	6,240,000	442,387	--	--	235,538,163	368,617,751	604,155,913
2027	77,800,000	13,694,500	--	168,803,720	337,238,674	675,000	120,154	--	--	247,278,720	351,053,327	598,332,047
2028	91,925,000	9,804,500	--	160,249,806	335,590,376	715,000	83,947	--	--	252,889,806	345,478,823	598,368,629
2029	84,165,000	5,208,250	--	194,392,515	325,323,374	850,000	45,594	--	--	279,407,515	330,577,218	609,984,733
2030	15,760,000	1,000,000	--	261,369,520	318,543,816	--	--	--	--	277,129,520	319,543,816	596,673,336
2031	4,240,000	212,000	--	312,930,596	303,232,544	--	--	--	--	317,170,596	303,444,544	620,615,140
2032	--	--	--	384,883,762	269,436,199	--	--	--	--	384,883,762	269,436,199	654,319,961
2033	--	--	--	385,161,194	247,368,895	--	--	--	--	385,161,194	247,368,895	632,530,090
2034	--	--	--	371,390,377	225,320,354	--	--	--	--	371,390,377	225,320,354	596,710,731
2035	--	--	--	487,553,607	203,208,522	--	--	--	--	487,553,607	203,208,522	690,762,129
2036	--	--	--	525,804,559	175,259,523	--	--	--	--	525,804,559	175,259,523	701,064,082
2037	--	--	--	362,274,925	144,157,064	--	--	--	--	362,274,925	144,157,064	506,431,989
2038	--	--	--	256,744,380	122,615,074	--	--	--	--	256,744,380	122,615,074	379,359,453
2039	--	--	--	268,820,000	77,699,638	--	--	--	--	268,820,000	77,699,638	346,519,638
2040	--	--	--	255,232,000	61,868,964	--	--	--	--	255,232,000	61,868,964	317,100,964
2041	--	--	--	269,786,000	47,310,038	--	--	--	--	269,786,000	47,310,038	317,096,038
2042	--	--	--	149,070,000	31,915,479	--	--	--	--	149,070,000	31,915,479	180,985,479
2043	--	--	--	157,530,000	23,462,354	--	--	--	--	157,530,000	23,462,354	180,992,354
2044	--	--	--	47,310,000	14,523,025	--	--	--	--	47,310,000	14,523,025	61,833,025
2045	--	--	--	49,915,000	11,920,975	--	--	--	--	49,915,000	11,920,975	61,835,975
2046	--	--	--	52,660,000	9,175,650	--	--	--	--	52,660,000	9,175,650	61,835,650
2047	--	--	--	55,555,000	6,279,350	--	--	--	--	55,555,000	6,279,350	61,834,350
2048	--	--	--	58,615,000	3,223,825	--	--	--	--	58,615,000	3,223,825	61,838,825
Total	$466,495,000	$180,758,907	($65,634,220)	$6,382,284,984	$5,894,283,662	$130,590,000	$20,505,606	$59,563,636	$5,282,092	$7,038,933,620	$6,035,196,047	$13,074,129,667

[1] Principal and interest (including the amount of interest that has accreted 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 2010A (Modern Schools Across Chicago Program) and Taxable 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. Principal and interest includes certain debt service on certain bonds for which provision for payment has been made through January 1, 2022 by the City's deposit of funds with the respective paying agents for such bonds. Principal and interest reflects implementation of the Financing Plan; see "PLAN OF FINANCING."

[2] Debt service on the Designated TIF Bonds is shown in the columns under the heading 2020A Bonds.

[3] 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 Series 2010B (Modern Schools Across Chicago Program) (Build America Bonds–Direct Payment) and the General Obligation Bonds, Taxable Project Series 2010B (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, both of 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 City's 2002 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.

Since 2002, the City has from time to time issued commercial paper notes and entered into lines of credit under its Short-Term Borrowing Program. The City's borrowing capacity under its Short-Term Borrowing Program has varied over time and has ranged from a high of $1.0 billion in 2015 to a low of $100 million in 2019. The City repaid all outstanding borrowings under its Short-Term Borrowing Program in August 2019.

Currently, the City has available borrowing capacity under its Short-Term Borrowing Program pursuant to a Revolving Line of Credit Agreement (the "*Line of Credit*"), entered into in September 2015, 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 increased to $900 million in 2014, decreased to $510 million in 2016, and further decreased to $100 million in 2019. The Line of Credit contains rating thresholds that provide the subject banks the right to terminate the facility and require the City to immediately pay all outstanding amounts. A default is triggered by a downgrade of the City's long-term general obligation ad valorem tax debt rating below "BBB-" by any two of the 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 19, 2019, the outstanding balance was $66.2 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 2020A 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 2020A Bonds or, ultimately, a payment default on the 2020A 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 Line of Credit. Such defaults could result in the City having to immediately repay any outstanding borrowings under the Line of Credit. 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. There are no borrowings currently outstanding under the Line of Credit. 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." Future required contribution increases beyond fiscal year 2019 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.

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. 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. See "FINANCIAL DISCUSSION AND ANALYSIS –Corporate Fund Financial Forecasts and Budget Gaps."

Increased Debt Service Levels

From time to time, the City may issue additional short-term and long-term general obligation debt. Further increases in the City's 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.

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 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 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 2020A 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 2020A Bonds. The 2020A 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 2020A Bonds cannot be accelerated in the event that the City fails to pay any installment of interest on, or principal of, the 2020A Bonds when due.

The remedies available to Bondholders upon nonpayment of principal of or interest on the 2020A 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, 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 2020A Bonds, or which concerns the proceedings of the City taken in connection with the 2020A Bonds or the City's pledge of its full faith, credit and resources to the payment of the 2020A 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, objection to portions of the City property tax levy are usually filed in the Circuit Court by owners of some properties in the City. All objections for tax years 2008 and before have been settled. Objections for tax years 2009 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, 2018, 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 dated June 25, 2019 appearing herein at APPENDIX C. As discussed in Notes 1 and 18 to the basic financial statements of the City as of and for the year ended December 31, 2018, beginning net position was restated due to the City's adoption of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits other than Pensions*. The opinion of Deloitte & Touche LLP, independent auditors, is not modified with respect to this matter.

RATINGS

The 2020A 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 2020A Bonds may be resold.

FINANCIAL ADVISORS AND INDEPENDENT REGISTERED MUNICIPAL ADVISORS

The City has retained Columbia Capital Management LLC, Public Alternative Advisors, LLC, PFM Financial Advisors LLC, and Swap Financial Group LLC to act as co-financial advisors (the "*Co-Financial Advisors*") in connection with the offering of the 2020A Bonds. The Co-Financial Advisors have provided advice on the plan of financing and structure of the 2020A 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 seven firms (Acacia Financial Group, Martin J. Luby LLC, PFM Financial Advisors LLC, Public Alternative Advisors, LLC, RSI Group, LLC, Sycamore Advisors, LLC, and Swap Financial Group LLC) to serve as a pool of registered municipal advisors (the "*IRMAs*") 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 IRMAs will not advise on the investment of City funds held by the Office of the City Treasurer. The IRMAs' compensation is not dependent on the offering of the 2020A Bonds.

VERIFICATION AGENT

Samuel Klein and Company, Certified Public Accountants, Newark, New Jersey (the "*Verifier*"), upon delivery of the 2020A Bonds, will deliver to the City, Co-Bond Counsel and the Underwriters a report stating that the firm, at the request of the City, has reviewed the mathematical accuracy of certain computations based on certain assumptions relating to (i) the sufficiency of the principal and interest received from the investment in Government Obligations, together with any initial cash deposit, to meet the timely payment of the applicable redemption price of the Refunded Bonds, as described under "PLAN OF FINANCING", and (ii) the yields on the 2020A Bonds and on the Refunded Bonds.

The Verifier will express no opinion on the attainability of any assumptions or the tax-exempt status of the 2020A Bonds. The computations verified by the Verifier are intended in part to support conclusions of Co-Bond Counsel concerning the federal income tax status of the 2020A Bonds.

UNDERWRITING

The 2020A Bonds are being purchased by the underwriters listed on the cover page of this Official Statement (the "*Underwriters*"), for whom J.P. Morgan Securities LLC, Goldman Sachs & Co. LLC, Cabrera Capital Markets, LLC and Siebert Williams Shank & Co., LLC are acting as co-lead managers. J.P. Morgan Securities LLC, as representative on behalf of itself and the other Underwriters, has agreed, subject to certain conditions, to purchase the 2020A Bonds at a price equal to $552,570,831.28 (which represents the aggregate principal amount of the 2020A Bonds less an Underwriters' discount of $3,341,729.97 and plus an original issue premium of $89,417,561.25).

The obligation of the Underwriters to accept delivery of the 2020A Bonds is subject to various conditions set forth in a Bond Purchase Agreement dated January 16, 2020, between the Underwriters and the City. The Underwriters are obligated to purchase all of the 2020A Bonds if any of the 2020A 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.

J.P. Morgan Securities LLC ("*JPMS*"), one of the Underwriters of the 2020A Bonds, has entered into negotiated dealer agreements (each, a "*Dealer Agreement*") with each of Charles Schwab & Co., Inc. ("*CS&Co.*") and LPL Financial LLC ("*LPL*") for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, each of CS&Co. and LPL may purchase 2020A Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any 2020A Bonds that such firm sells.

BofA Securities, Inc., one of the Underwriters of the 2020A Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("*MLPF&S*"). As part of this arrangement, BofA Securities, Inc. may distribute securities to MLPF&S, which may in turn distribute such securities to investors through the financial advisor network of MLPF&S. As part of this arrangement, BofA Securities, Inc. may compensate MLPF&S as a dealer for their selling efforts with respect to the 2020A Bonds.

TAX MATTERS

Summary of Co-Bond Counsel Opinion

Co-Bond Counsel are of the opinion that under existing law, interest on the 2020A Bonds is not includable in the gross income of the owners thereof for federal income tax purposes. If there is continuing compliance with the applicable requirements of the Internal Revenue Code of 1986 (the "*Code*"), Co-Bond

Counsel are of the opinion that interest on the 2020A Bonds will continue to be excluded from the gross income of the owners thereof for Federal income tax purposes. Co-Bond Counsel are further of the opinion that interest on the 2020A Bonds is not an item of tax preference for purposes of computing alternative minimum taxable income. The Code contains certain requirements that must be satisfied from and after the date of issuance of the 2020A Bonds in order to preserve the exclusion from gross income for federal income tax purposes of interest on the 2020A Bonds. These requirements relate to the use and investment of the proceeds of the 2020A Bonds, the payment of certain amounts to the United States, the security and source of payment of the 2020A Bonds and the use of the property financed with the proceeds of the 2020A Bonds.

Interest on the 2020A Bonds is not exempt from present Illinois income taxes.

2020A Bonds Purchased at a Premium or at a Discount

The difference (if any) between the initial price at which a substantial amount of a maturity of the 2020A Bonds are sold to the public (the "*Offering Price*") and the principal amount payable at maturity of such 2020A Bonds is given special treatment for federal income tax purposes. If the Offering Price is higher than the maturity value of a 2020A Bond, the difference between the two is known as "*bond premium*;" if the Offering Price is lower than the maturity value of a 2020A Bond, the difference between the two is known as "*original issue discount*."

Bond premium and original issue discount are amortized over the term of a 2020A Bond on the basis of the owner's yield from the date of purchase to the date of maturity, compounded at the end of each accrual period of one year or less with straight line interpolation between compounding dates, as provided more specifically in the Income Tax Regulations. The amount of bond premium accruing during each period is treated as a reduction in the amount of tax-exempt interest earned during such period. The amount of original issue discount accruing during each period is treated as interest that is excludable from the gross income of the owner of such 2020A Bond for federal income tax purposes, to the same extent and with the same limitations as current interest.

Owners who purchase 2020A Bonds at a price other than the Offering Price, after the termination of the initial public offering or at a market discount should consult their tax advisors with respect to the tax consequences of their ownership of the 2020A Bonds. In addition, owners of 2020A Bonds should consult their tax advisors with respect to the state and local tax consequences of owning the 2020A Bonds; under the applicable provisions of state or local income tax law, bond premium and original issue discount may give rise to taxable income at different times and in different amounts than they do for federal income tax purposes.

Exclusion from Gross Income: Requirements

The Code sets forth certain requirements that must be satisfied on a continuing basis in order to preserve the exclusion from gross income for federal income tax purposes of interest on the 2020A Bonds. Among these requirements are the following:

Limitations on Private Use. The Code includes limitations on the amount of 2020A Bond proceeds that may be used in the trade or business of, or used to make or finance loans to, persons other than governmental units.

Investment Restrictions. Except during certain "temporary periods," proceeds of the 2020A Bonds and investment earnings thereon (other than amounts held in a reasonably required reserve or replacement fund, if any, or as part of a "minor portion") may generally not be invested in investments having a yield that is "materially higher" (1/8 of one percent) than the yield on the 2020A Bonds.

Rebate of Arbitrage Profit. Unless the City qualifies for an exemption, earnings from the investment of the "gross proceeds" of the 2020A Bonds in excess of the earnings that would have been realized if such investments had been made at a yield equal to the yield on the 2020A Bonds are required to be paid to the United States at periodic intervals. For this purpose, the term "gross proceeds" includes the original proceeds of the 2020A Bonds, amounts received as a result of investing such proceeds and amounts to be used to pay debt service on the 2020A Bonds.

Covenants to Comply

The City has covenanted to comply with the requirements of the Code relating to the exclusion from gross income for federal income tax purposes of interest on the 2020A Bonds.

Risks of Non-Compliance

In the event that the City fails to comply with the requirements of the Code, interest on the 2020A Bonds may become includable in the gross income of the owners thereof for federal income tax purposes retroactive to the date of issue. In such event, the City's agreements with the owners of the 2020A Bonds do not require payment of any additional interest or penalties to the owners of the 2020A Bonds.

Federal Income Tax Consequences

Pursuant to Section 103 of the Code, interest on the 2020A Bonds is not includable in the gross income of the owners thereof for federal income tax purposes. However, the Code contains a number of other provisions relating to the treatment of interest on the 2020A Bonds that may affect the taxation of certain types of owners, depending on their particular tax situations. Some of the potentially applicable federal income tax provisions are described in general terms below. PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR TAX ADVISORS CONCERNING THE PARTICULAR FEDERAL INCOME TAX CONSEQUENCES OF THEIR OWNERSHIP OF THE 2020A BONDS.

Cost of Carry. Owners of the 2020A Bonds will generally be denied a deduction for otherwise deductible interest on any debt which is treated for federal income tax purposes as incurred or continued to purchase or carry the 2020A Bonds. As discussed below, special allocation rules apply to financial institutions.

Corporate Owners. Interest on the 2020A Bonds is generally taken into account in computing the earnings and profits of a corporation and consequently may be subject to federal income taxes based thereon. Thus, for example, interest on the 2020A Bonds is taken into account in computing the branch profits tax imposed on certain foreign corporations, the passive investment income tax imposed on certain S corporations, and the accumulated earnings tax.

Individual Owners. Receipt of interest on the 2020A Bonds may increase the amount of social security and railroad retirement benefits included in the gross income of the recipients thereof for federal income tax purposes.

Certain Blue Cross or Blue Shield Organizations. Receipt of interest on the 2020A Bonds may reduce a special deduction otherwise available to certain Blue Cross or Blue Shield organizations.

Property or Casualty Insurance Companies. Receipt of interest on the 2020A Bonds may reduce otherwise deductible underwriting losses of a property or casualty insurance company.

Financial Institutions. Financial institutions may be denied a deduction for their otherwise allowable interest expense in an amount determined by reference, in part, to their adjusted basis in the 2020A Bonds.

Foreign Personal Holding Company Income. A United States shareholder of a foreign personal holding company may realize taxable income to the extent that interest on the 2020A Bonds held by such a company is properly allocable to the shareholder.

The opinions of Co-Bond Counsel and the descriptions of the tax law contained in this Official Statement are based on statutes, judicial decisions, regulations, rulings and other official interpretations of law in existence on the date the 2020A Bonds are issued. There can be no assurance that such law or the interpretation thereof will not be changed or that new provisions of law will not be enacted or promulgated at any time while the 2020A Bonds are outstanding in a manner that would adversely affect the value or the tax treatment of ownership of the 2020A Bonds.

APPROVAL OF LEGAL MATTERS

Certain legal matters incident to the authorization, issuance and sale of the 2020A 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 2020A 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 2020A Bonds, the security for the 2020A 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 2020A 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 (i) by its Corporation Counsel, (ii) in connection with the preparation of this Official Statement, by Thompson Coburn LLP, Chicago, Illinois, and Golden Holley James LLP, Chicago, Illinois, Co-Disclosure Counsel to the City, and (iii) in connection with certain pension matters described in this Official Statement, by Chapman and Cutler LLP, Chicago, Illinois, Special Disclosure Counsel. Certain legal matters will be passed on for the Underwriters by McGuireWoods 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 2020A 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 2020A Bonds, the Indenture, or the Bond Ordinance, and beneficial owners of the 2020A Bonds are limited to the remedies described in the Undertaking. See " – Consequences of Failure of the City to Provide Information" below. 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 2020A Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the 2020A 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 2020. 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 titled "General Fund" included under the caption "FINANCIAL DISCUSSION AND ANALYSIS – General Fund – *Selected Financial Information*"; (ii) the financial tables titled "Assessed, Equalized Assessed and Estimated Value of All Taxable Property" and "Property Taxes for All City Funds, Collections and Estimated Allowance for Uncollectible Taxes" included under the caption "FINANCIAL DISCUSSION AND ANALYSIS – Property Taxes – *EAV and Property Taxes*"; (iii) the financial tables titled "Property Tax Levies" and "Property Tax Rates Per $100 of Equalized Assessed Valuation" included under the caption "FINANCIAL DISCUSSION AND ANALYSIS – Property Taxes – *Use of City Property Tax Levy*"; (iv) the financial tables titled "Long-Term General Obligation Selected Debt Statistics" and "Long-Term General Obligation Bonds Debt Service Schedule" included under the caption "GENERAL OBLIGATION DEBT"; and (v) Tables 1 through 10 included under the caption "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 2020A Bonds, are:

(1) Principal and interest payment delinquencies;

(2) Non-payment related defaults, if material;

(3) Unscheduled draws on debt service reserves reflecting financial difficulties;

(4) Unscheduled draws on credit enhancements reflecting financial difficulties;

(5) Substitution of credit or liquidity providers, or their failure to perform;

(6) 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 2020A Bonds, or other material events affecting the tax status of the 2020A Bonds;

(7) Modifications to rights of holders of 2020A Bonds, if material;

(8) Bond calls, if material, and tender offers;

(9) Defeasances;

(10) Release, substitution or sale of property securing repayment of the securities, if material;

(11) Rating changes;

(12) Bankruptcy, insolvency, receivership or similar event of the City; such an event will be 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 such jurisdiction 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);

(13) 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;

(14) Appointment of a successor or additional trustee or the change of name of a trustee, if material;

(15) 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 holders of 2020A Bonds, if material; and

(16) A default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the City, any of which reflect financial difficulties.

The term *financial obligation* as used in paragraphs (15) and (16) of Reportable Events 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 (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 2020A 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 2020A 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 2020A 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 2020A 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 2020A 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 2020A 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 JPMorgan 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 "Fl" to "Fl+." On September 19, 2014, Moody's Investors Service ("*Moody's*") downgraded the long-term letter of credit supported rating of the 2014C Bonds from "Aa l" to "Aa2." On May 28, 2015, Moody's upgraded the long-term letter of credit supported rating of the 2014C Bonds from "Aa2" to "Aal." 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.

In July 2019, the City filed on EMMA on a timely basis the City's 2018 audited financial statements for the General Fund for all then-outstanding general obligation bonds of the City, except with respect to the City's General Obligation Bonds, Library Series 2008D. On December 17, 2019, those financial statements were filed on EMMA with respect to the General Obligation Bonds, Library Series 2008D and the City filed on EMMA a notice regarding its failure to file on a timely basis the 2018 audited financial statements with respect to such bonds.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

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 2020A 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/ Jennie Huang Bennett
Jennie Huang Bennett
Chief Financial Officer

APPENDIX A

SUMMARY OF THE INDENTURE

[THIS PAGE INTENTIONALLY LEFT BLANK]

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 2020A 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 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 2020A 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 City of Chicago General Obligation Bonds, Refunding Series 2020A Bond Fund established under the Indenture, and described under "**FUNDS AND ACCOUNTS; INVESTMENTS—*Bond Fund***" in this Appendix A.

"**Bond Ordinance**" means the ordinance duly adopted by the City Council on November 26, 2019, authorizing the issuance of the 2020A Bonds.

"**Bond Register**" means the registration books of the City kept by the Trustee to evidence the registration and transfer of the 2020A Bonds.

"**Bondholder**," "**holder**" or "**owner of the 2020A Bonds**" means the Registered Owner or Beneficial Owner of any 2020A Bond, as the case may be.

"**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 is closed.

"**Capitalized Interest Account**" means the Series 2020A Capitalized Interest Account established within the Bond Fund under the Indenture, and described under "**FUNDS AND ACCOUNTS; INVESTMENTS—*Capitalized Interest Account***" in this Appendix A.

"**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 facts, respectively.

"**Chief Financial Officer**" means the Chief Financial Officer of the City.

"**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. 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 January 30, 2020, the date of issuance and delivery of the 2020A 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: Federal Home Loan Mortgage Corp. debt obligations, Farm Credit System debt obligations, Federal Home Loan Banks debt obligations, Fannie Mae debt obligations, Financing Corp. debt obligations, Resolution Funding Corp. debt obligations and U.S. Agency for International Development 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 2020A Bonds for payment or transfers:

Zions Bancorporation, National Association
Attn: Corporate Trust, Zions Bank Division
111 West Washington Street, Suite 1860
Chicago, IL 60602

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

"Designated TIF Bonds" means the $16,860,000 principal amount of the 2020 Bonds described as follows:

Maturity (January 1)	Principal Amount	CUSIP
2021	$3,345,000	167486E47
2021	700,000	167486E54
2022	3,460,000	167486E62
2022	710,000	167486E70
2023	3,635,000	167486E88
2023	730,000	167486E96
2024	3,040,000	167486F38
2024	850,000	167486F20
2025	195,000	167486F53
2026	195,000	167486F61

"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"** above, 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.

"Expense Fund" means the City of Chicago General Obligation Bonds, Refunding Series 2020A Expense Fund established under the Indenture, and described under "**FUNDS AND ACCOUNTS; INVESTMENTS**—***Expense Fund***" in this Appendix A.

"Indenture" means the Trust Indenture, dated as of January 1, 2020, by and between the City and the Trustee, with respect to the 2020A 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, 2020.

"Issuance Costs" means the expenses and costs of the City with respect to the authorization, sale and delivery of the 2020A Bonds and the refunding of the Refunded Bonds.

"Maturity Date" means, for the 2020A 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 2020A Bonds, such as rating agencies and entities providing financial market information to be used in connection with the structuring and sale of the 2020A Bonds, as defined in Section 2.2(a) of Part B 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 2020A Bonds, all of such obligations issued under the Indenture that are unpaid, provided that such term does not include:

(a) 2020A 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 2020A 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) 2020A 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 2020A Bonds;

(d) 2020A Bonds in lieu of or in exchange or substitution for which other 2020A Bonds shall have been authenticated and delivered pursuant to the Indenture; and

(e) 2020A Bonds owned by the City and tendered to the Trustee for cancellation.

"**Outstanding City Bonds**" means certain outstanding series of general obligation bonds of the City.

"**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 upon all taxable property in the City pursuant to the Bond Ordinance and subject to abatement in accordance therewith, as well as any amounts deposited into the Bond Fund or deposited with the Ad Valorem Tax Escrow Agent (as defined in the Bond Ordinance) by an Authorized Officer for the purpose of paying principal of and interest on the 2020A Bonds, all as further described in Section 2.2(c) of Part B of the Bond Ordinance.

"**Principal and Interest Account**" means the Series 2020A Principal and Interest Account established within the Bond Fund under the Indenture, and described under "**FUNDS AND ACCOUNTS; INVESTMENTS**—***Principal and Interest Account***" in this Appendix A.

"**Principal and Interest Account Requirement**" means an amount equal to the total principal installment and interest due on the 2020A Bonds as of each January 1 and July 1, which amount shall be deposited in the Principal and Interest Account not later than the Deposit Date for such Interest Payment Date.

"**Redemption Price**" means, with respect to the 2020A Bonds, the principal amount thereof plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of the 2020A Bonds.

"**Refunded Bonds**" means the following Outstanding City Bonds:

$14,250,000 General Obligation Bonds, Series 2007G
(Modern Schools Across Chicago Program)

Principal Amount:	$14,250,000
Interest Rate:	5.00%
Maturity Date:	December 1, 2024

$3,435,000 General Obligation Bonds, Series 2007K
(Modern Schools Across Chicago Program)

Principal Amount:	$3,435,000
Interest Rate:	4.25%
Maturity Date:	December 1, 2026

$229,295,000 General Obligation Bonds,
Project and Refunding Series 2007A

Maturity (January 1)	Principal Amount	Interest Rate
2026	$20,475,000	5.00%
2026	6,265,000	4.25
2027	38,430,000	5.00
2029	55,775,000	5.00
2032	15,680,000	5.00
2033	9,435,000	5.00
2037	83,235,000	5.00

$237,740,000 General Obligation Bonds,
Refunding Series 2009A

Maturity (January 1)	Principal Amount	Interest Rate
2024	$ 6,640,000	5.00%
2025	14,390,000	5.00
2025	17,935,000	5.00
2026	4,750,000	5.00
2026	53,805,000	5.00
2027	1,290,000	4.25
2027	60,135,000	5.00
2028	64,545,000	5.00
2029	14,250,000	5.00

"**Registered Owner**" or "**Owner**" means the person or persons in whose name or names a 2020A Bond shall be registered in the Bond Register.

"**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 2020A Bonds.

"**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.

"**Trustee**" means Zions Bancorporation, National Association, a national banking association 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.

"**2020A Bonds**" means the City of Chicago General Obligation Bonds, Refunding Series 2020A.

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 2020A 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 2020A Bonds by the holders of the 2020A 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 2020A 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 2020A Bonds. The City covenants and agrees with the Owners of the 2020A 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 2020A Bonds.

SOURCE OF PAYMENT OF 2020A BONDS

Pursuant to the Bond Ordinance, the 2020A 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, unless and until all of the 2020A 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 2020A Bonds (or for the purchase by the City of 2020A 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 2020A BONDS.**"

FUNDS AND ACCOUNTS; INVESTMENTS

Bond Fund

Pursuant to the Indenture, the City has established with the Trustee the Bond Fund, a separate trust fund with respect to the 2020A Bonds.

At each such time as required under the Indenture, the City shall cause to be deposited 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 Principal and Interest Account of the Bond Fund shall be applied by the Trustee to pay the principal of and interest on the 2020A Bonds as the same become due.

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 investment was made.

The Indenture establishes within the Bond Fund four accounts: (i) the Principal and Interest Account; (ii) the Capitalized Interest Account; (iii) the Lawrence/Kedzie TIF Account; and the (iv) the Touhy/Western TIF Account. *See* "***—Principal and Interest Account,***" "***—Capitalized Interest Account***" and "***—TIF Accounts***" below.

Deposits into Bond Fund

Not later than each Deposit Date, there shall be on deposit in the Principal and Interest Account of 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.

Principal and Interest Account

Pursuant to the Indenture, the City has established with the Trustee the Principal and Interest Account, a trust account within the Bond Fund.

Amounts on deposit in the Principal and Interest Account shall be used to pay principal and interest on the 2020A Bonds as the same shall become due.

Capitalized Interest Account

Pursuant to the Indenture, the City has established with the Trustee the Capitalized Interest Account, a trust account within the Bond Fund for the purpose of capitalizing interest in the 2020A Bonds that are <u>not</u> Designated TIF Bonds.

Moneys on deposit in the Capitalized Interest Account, and the interest earnings thereon, shall be applied to pay interest due on the 2020A Bonds (other than the Designated TIF Bonds) on each of the Interest Payment Dates occurring on and before January 1, 2023. Any amount remaining on deposit in the Capitalized Interest Account on January 2, 2023 shall be deposited into the Principal and Interest Account.

TIF Accounts

Moneys deposited by the City into the Lawrence/Kedzie TIF Account and the Touhy/Western TIF Account may be used by the City to pay principal installments and interest on the 2020A Bonds that are Designated TIF Bonds.

Expense Fund

Pursuant to the Indenture, the City has established with the Trustee the Expense Fund, a separate trust fund.

Moneys on deposit in the Expense 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 Issuance Costs 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 Expense Fund, 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 Capitalized Interest Account described above.

Investment of Moneys in Funds

Moneys in the Expense 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 Issuance Costs 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 Expense 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 Expense Fund. Moneys held in the funds, accounts and subaccounts established in the Indenture shall be invested and reinvested in accordance with the provisions governing investments contained in the 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. 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

SUPPLEMENTAL INDENTURES

Supplemental Indentures Not Requiring Bondholder Consent

A Supplemental Indenture may be authorized at any time by an ordinance adopted by the City Council and, 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 be fully effective, in accordance with its terms and not subject to consent by the Owners of the 2020A 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.

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 2020A 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 2020A Bonds, in particular, which requires the consent of the 2020A 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 2020A Bonds Outstanding at the time such consent is given; or (b) in case less than all of the then Outstanding 2020A Bonds are affected by the modification or amendment, of the Owners of a majority in principal amount of the then Outstanding 2020A 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 2020A 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 2020A Bonds, or shall reduce the percentages or otherwise affect the classes of 2020A 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 2020A 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 2020A Bond.

General Provisions

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 2020A Bonds would otherwise be entitled.

DEFAULT AND REMEDIES

Defaults

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 2020A 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 2020A 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 2020A Bonds, which materially affects the rights of the Owners of the 2020A 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 2020A 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.

Remedies

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 2020A Bonds Outstanding, shall proceed, in its own name, to protect and enforce its rights and the rights of the Owners of the 2020A 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 2020A 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 2020A Bonds and to perform its duties under the Indenture;

(ii) by bringing suit upon the 2020A 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 2020A 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 2020A 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 2020A Bonds for principal, Redemption Price, interest or otherwise, under any provision of the Indenture or of the 2020A

Bonds, and unpaid, with interest on overdue payments at the rate or rates of interest specified in the 2020A Bonds, together with any and all costs and expenses of collection and of all proceedings under the Indenture and under such 2020A Bonds without prejudice to any other right or remedy of the Trustee or of the Owners of the 2020A 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 2020A 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 2020A 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 2020A 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 2020A Bonds then Outstanding, excluding any 2020A 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 2020A 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 2020A Bonds then Outstanding, excluding any 2020A 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 2020A Bonds as authorized in the Indenture. The City shall mail notice to Owners of 2020A 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 2020A 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 2020A 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 2020A Bonds or provide for the payment of, the principal, premium, if any, and interest to become due on the 2020A Bonds, then the Indenture and the Bond Ordinance will be fully discharged and satisfied with respect to the 2020A 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 2020A Bonds. If payment or provision for payment is made to or for the Registered Owners of all or a portion of the 2020A Bonds, of the principal of and interest due and to become due on any 2020A 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 granted under the Indenture and the Bond Ordinance shall cease, terminate and be void as to those 2020A Bonds or portions thereof except for purposes of registration, transfer and exchange of 2020A Bonds and any such payment from such moneys or obligations. Any 2020A Bond will be deemed to be paid when payment of the principal of such 2020A 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 (x) shall have been made or caused to have been made in accordance with the terms thereof, or (y) 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, (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. If the City shall pay and discharge a portion of the 2020A 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 2020A Bonds will continue, but the Registered Owners thereof shall thereafter be entitled to payment (to the exclusion of all other 2020A 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 2020A 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 2020A 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 2020A 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 2020A 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 Bond Counsel to the effect that such sale and reinvestment would not cause any of the defeased 2020A Bonds to be treated as "arbitrage bonds" within the meaning of Section 148 of the Code or any successor provision thereto.

APPENDIX B

ECONOMIC AND DEMOGRAPHIC INFORMATION

[THIS PAGE INTENTIONALLY LEFT BLANK]

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 approximately 9.5 million people, with over 4.8 million employees.[i] Chicago's large and diverse economy contributed to a gross domestic product in the metropolitan area of approximately $689 billion in 2018.[ii]

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.[iii] 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 57.7 million tourists visited Chicago in 2018.[iv]

CHICAGO AREA EMPLOYMENT BY SECTOR
October 2019

Sector	October 2019	Number Change from October 2018	Percent Change from October 2018
Total nonfarm	4,841.9	35.8	0.7
Mining and Logging	1.7	0.1	6.3
Construction	189.4	(1.7)	(0.9)
Manufacturing	425.8	1.9	0.4
Trade, transportation, and utilities	962.2	5.2	0.5
Information	74.4	(3.0)	(3.9)
Financial activities	315.9	2.5	0.8
Professional and business services	862.3	2.9	0.3
Education and health services	757.4	14.4	1.9
Leisure and hospitality	503.8	12.7	2.6
Other services	198.7	0.5	0.3
Government	550.3	0.3	0.1

Population

Chicago is home to over 2.7 million people that live in more than one million households.[v] The City's population increased nearly 0.4 percent since the 2010 Census.[vi]

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 2018 is set forth below.

POPULATION[vii]
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
2018 Estimate	327,167,434	12,741,080	5,180,493	2,705,994

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.[viii] Among the seven largest cities in the United States, Chicago has the highest share of residents age 25 and over with a college degree. The City also boasts the largest number of Big Ten graduates of any city in the country.[ix]

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[x]
2008—2017

Year	United States	State of Illinois	Chicago MSA[xi]	Cook County
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 37th among other metropolitan areas in the cost of living.[xii|xiii]

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[xiv]

Year	State of Illinois	Chicago MSA	Cook County	Chicago
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	4,851	2,506	1,289

*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 2019.

ANNUAL UNEMPLOYMENT RATES[xv]
2008—2019

Year	United States	State of Illinois	Chicago MSA	Cook County	Chicago
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	3.6	3.7	4.5
2019*	3.7	4.0	3.6	3.8	4.1

Note: 2019 Unemployment data is for August 2019.

The percentage of total (non-farm) employment by major industry 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

Sector	United States[xvi]	Illinois[xvii]	Chicago Metropolitan Division[xviii]
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 and 32 S&P 500 headquarters, as shown in the following table.

FORTUNE 500 AND S&P 500 COMPANIES HEADQUARTERED IN THE CHICAGO MSA 2019[xix]

Fortune Rank	S&P Rank	Company	Headquarters Location
17	147	Walgreens Boots Alliance	Deerfield, IL
28	30	Boeing	Chicago, IL
49	225	Archer Daniels Midland	Chicago, IL
58	74	Caterpillar	Deerfield, IL
78	283	United Continental Holdings	Chicago, IL
82	171	Allstate	Northbrook, IL
93	146	Exelon	Chicago, IL
96	42	AbbVie	North Chicago, IL
103	33	Abbott Laboratories	Abbott Park, IL
116	75	Mondelez International	Deerfield, IL
125	-	US Foods Holding	Rosemont, IL
149	36	McDonald's	Chicago, IL
189	-	Jones Lang LaSalle	Chicago, IL
191	277	CDW	Lincolnshire, IL
214	117	Illinois Tool Works	Glenview, IL
253	211	Discover Financial Services	Riverwoods, IL
262	406	LKQ	Chicago, IL
267	-	Tenneco	Lake Forest, IL
282	341	W.W. Grainger	Lake Forest, IL
286	149	Baxter International	Deerfield, IL
308	-	Navistar International	Lisle, IL
353	-	Univar	Downers Grove, IL
364	-	Anixter International	Glenview, IL
386	348	Conagra Brands	Chicago, IL
412	315	Dover	Downers Grove, IL
416	216	Motorola Solutions	Chicago, IL
432	416	Packaging Corp. of America	Lake Forest, IL
435	302	Arthur J. Gallagher	Rolling Meadows, IL
445	-	R.R. Donnelley & Sons	Chicago, IL
449	338	Ulta Beauty	Bolingbrook, IL
453	244	Northern Trust	Chicago, IL
481	-	Old Republic International	Chicago, IL
486	-	Ingredion	Westchester, IL
489	-	TreeHouse Foods	Oak Brook, IL
-	83	CME Group	Chicago, IL
-	209	Equity Residential	Chicago, IL
-	273	Ventas	Chicago, IL
-	284	Kraft Heinz	Chicago, IL and Pittsburgh, PA
-	371	CBOE Global Markets	Chicago, IL
-	380	IDEX Corporation	Lake Forest, IL
-	423	CF Industries Holdings	Deerfield, IL
-	437	Fortune Brands Home & Security	Deerfield, IL

Note: Companies listed on the S&P 500 but not on the Fortune 500 are listed in order of market cap. Kraft Heinz maintains co-headquarters, one of which is located in the City. The list is based on the 2019 Fortune 500 list and the current S&P 500 listing as of December 17, 2019.

Site Selection magazine named the City the "Top Metro" for corporate relocation and investment for three consecutive years in 2001-2003, for an additional three consecutive years in 2005-2007, for an additional year in 2010, and every year since 2013, a streak that reached its sixth consecutive year in 2018. In 2018 alone, there were 422 corporate facility investment projects in the Chicago metropolitan area.[xx] For the seventh year in a row, the Chicago metropolitan area leads the U.S. in foreign direct investment (FDI) according to the 2018 IBM Global Location Trends report. This annual report, which outlines the latest trends in corporate location selection, found that Chicago is the only North American metro area in the global top 20.[xxi] In addition to the Fortune 500 and S&P 500 companies headquartered in the Chicago MSA, there are many companies not on those two lists that are located in or near the City. World Business Chicago notes that there are more than 400 major corporate headquarters, offices, or facilities located in the Chicago MSA.[xxii]

The non-governmental companies employing the greatest number of workers in the Chicago MSA as of the end of 2018 are set forth below.

LARGEST NON-GOVERNMENTAL EMPLOYERS IN CHICAGO MSA[xxiii]
2018

Employer	Number of Employees	Percentage of Total Employment
Northwestern Memorial Healthcare	19,886	1.54%
Advocate Aurora Healthcare	19,513	1.51
University of Chicago	17,345	1.35
Amita Health	16,321	1.26
United Continental Holdings, Inc.	14,582	1.13
Amazon.com Inc.	14,018	1.09
JPMorgan Chase & Co.	13,795	1.07
Walgreens Boots Alliance, Inc.	12,311	0.96
Walmart Inc.	11,420	0.89
Northwestern University	10,865	0.84

Top Taxpayers

The top ten property tax generating parcels, based on 2018 Equalized Assessed Value (EAV), are shown in the following table.

TOP TEN PROPERTY TAX GENERATING PARCELS (2018)[xxiv]
($ in thousands)

Rank	Property	2018 EAV	% of Total EAV
1	Willis Tower	$ 507,224	0.59%
2	Prudential Plaza	285,268	0.33
3	Blue Cross Blue Shield Tower	283,972	0.33
4	150 North Riverside	278,891	0.32
5	Aon Center	255,795	0.30
6	Water Tower Place	251,219	0.29
7	theMART	235,899	0.27
8	300 North LaSalle	234,420	0.27
9	theMART	234,387	0.27
10	The Franklin	218,162	0.25
	Total	$2,785,238	3.23%

* theMART appears in the above table twice because it is comprised of multiple parcels, two of which are in the top ten property tax generating parcels.

As shown in the table above, the top ten taxpayers account for approximately than 3.2 percent of the City's total tax base.

Transportation

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 1.9

million metric tons of freight, mail, and goods in 2018.[xxv] Chicago is the only region served by the six largest of the class I freight railroads in the United States.[xxvi]

The City's airports are hubs for three of the four largest airlines in the U.S.[xxvii] Chicago O'Hare International Airport was identified as the most domestically connected airport in the United States in a paper published by the Massachusetts Institute of Technology according to their Airport Connectivity Quality Index.[xxviii] According to statistics compiled by Airports Council International ("ACI") in 2018, O'Hare ranked sixth worldwide and third in the United States in terms of total passengers and in 2017, Midway ranked 28th. O'Hare is also the 6th busiest cargo airport in the United States.[xxix] ACI confirms that Chicago-O'Hare has surpassed Atlanta's Hartsfield-Jackson Airport to become the busiest airport in the world for flight operations, following on FAA's earlier findings that O'Hare is the busiest in the nation.[xxx] According to the Chicago Department of Aviation, during 2018, O'Hare and Midway had 83.2 and 22.0 million in total passenger volume, respectively. O'Hare supports substantial international service with international passengers constituting approximately 17 percent of total passengers in 2018.[xxxi]

The Chicago Transit Authority operates the second largest public transportation system in the nation, with: 1,864 buses operating on 127 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 1.5 million rides on an average weekday and 468.1 million rides in 2018 (bus and train combined).[xxxii]

Schools

The Chicago Public School ("CPS") 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.[xxxiii] City Colleges of Chicago operates seven colleges and serves nearly 80,000 students.[xxxiv]

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.[xxxv]

Government

The number of budgeted full-time equivalent positions of the City for the years 2011 through 2020 is included in the following table.

CITY FULL-TIME EMPLOYEES[xxxvi]
2011—2020

Year	Budgeted Full-Time Equivalent Positions
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	36,577
2020	36,606

Housing Market

The monthly home sales and the median home sale prices for Chicago for the years 2013 through 2019 are shown in the following tables.

CHICAGO MONTHLY HOME SALES[xxxvii]
2013—2019

	2013	2014	2015	2016	2017	2018	2019
January	1,485	1,383	1,295	1,363	1,575	1,438	1,337
February	1,378	1,361	1,448	1,528	1,529	1,530	1,422
March	1,894	1,819	2,118	2,099	2,546	2,332	2,025
April	2,331	2,210	2,386	2,628	2,647	2,698	2,555
May	2,762	2,390	2,700	2,980	3,046	3,034	2,895
June	2,623	2,761	3,110	3,321	3,380	3,168	2,766
July	2,838	2,664	2,989	2,780	2,699	2,793	2,655
August	2,797	2,414	2,629	2,844	2,791	2,716	2,543
September	2,352	2,187	2,358	2,398	2,355	2,010	1,954
October	2,231	2,082	2,109	2,047	2,109	2,098	2,048
November	1,800	1,632	1,615	1,937	1,959	1,840	1,659
December	2,080	1,992	2,029	1,974	2,058	1,698	

CHICAGO MEDIAN HOME SALE PRICES[xxxviii]
2013—2019

	2013	2014	2015	2016	2017	2018	2019
January	$159,000	$200,750	$222,000	$230,000	$255,000	$265,000	$252,000
February	158,000	175,000	212,000	238,000	246,000	272,000	273,900
March	187,500	237,000	235,000	268,500	295,000	314,000	291,450
April	222,000	250,000	275,000	287,500	297,500	309,950	310,000
May	234,000	270,000	287,500	290,750	305,600	306,000	315,000
June	254,900	275,000	290,000	299,900	306,750	312,750	319,900
July	250,000	270,000	285,000	290,000	300,000	309,000	306,250
August	245,000	250,000	270,000	271,000	284,000	285,000	289,900
September	231,000	250,000	250,000	260,000	275,000	287,400	292,750
October	218,500	237,500	240,000	260,100	260,000	272,500	275,356
November	200,000	230,000	235,000	260,000	256,000	262,000	270,000
December	210,000	229,250	242,500	260,000	265,250	246,500	

---

[i] U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018," https://factfinder.census.gov/bkmk/table/1.0/en/PEP/2018/GCTPEPANNR.US23PR

[ii] U.S. Bureau of Economic Analysis, Local Area Gross Domestic Product https://www.bea.gov/data/gdp/gdp-county-metro-and-other-areas

[iii] U.S. Bureau of Labor Statistics, "Chicago Area Economic Summary, Updated January 31, 2018," http://www.bls.gov/regions/midwest/summary/blssummary_chicago.pdf

[iv] Choose Chicago Research and Analysis, "Annual Report 2018," https://www.choosechicago.com/uploads/2019/06/Choose_Chicago_2018_Annual_Report_416_5cbf4289-4213-44e4-b622-174500953a00.pdf

[v] U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017"

[vi] U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017"

[vii] U.S. Census Bureau, "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017"

[viii] U.S. Census Bureau, "2013-2017 American Community Survey 5-Year Estimates"

[ix] Source: Zotti, Ed. Chicago Sun-Times. August 23, 2019. "College graduates are transforming Chicago. The danger is that it won't come fast enough." https://chicago.suntimes.com/politics/2019/8/23/20827050/college-graduates-transforming-chicago-development-obstacles-ed-zotti-city-crossroads

[x] 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

[xi] 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.

[xii] U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

[xiii] Bureau of Economic Analysis, "Regional Price Parities by Metropolitan Statistical Area,"

[xiv] U.S. Bureau of Labor Statistics, "Local Area Unemployment Statistics"

[xv] U.S. Bureau of Labor Statistics, "Local Area Unemployment Statistics"

[xvi] U.S. Bureau of Labor Statistics, "Current Employment Statistics (National)," http://www.bls.gov/web/empsit/ceseeb1a.htm

[xvii] U.S. Bureau of Labor Statistics, http://www.bls.gov/regions/midwest/illinois.htm.

[xviii] U.S. Bureau of Labor Statistics, http://www.bls.gov/regions/midwest/il_chicago_md.htm

[xix] Source: All data other than S&P 500 Rankings from Fortune Magazine: https://fortune.com/fortune500 and S&P 500 rankings from Slickcharts https://www.slickcharts.com/sp500

[xx] Site Selection Magazine, "Top Metropolitans of 2018," https://siteselection.com/issues/2019/mar/top-metros-of-2018-great-things-happen-here-hq2-or-not.cfm "Chicago Shines as Top Metro for Second Consecutive Year" https://siteselection.com/issues/2003/mar/p168/ "Chicago Dominance More than Mythical" https://siteselection.com/issues/2004/mar/p181/ "Life at the Top" https://siteselection.com/issues/2008/mar/topMetros/ "City with an Edge" https://siteselection.com/issues/2011/mar/top-metros.cfm "The Connected City" https://siteselection.com/issues/2014/mar/metros.cfm "Strength in Diversity" https://siteselection.com/issues/2015/mar/top-metros.cfm "Dare to be Greater" https://siteselection.com/issues/2015/mar/top-metros.cfm "Top Metros of 2016 Come in all

Sizes" https://siteselection.com/issues/2017/mar/top-metropolitans-of-2016.cfm "Repeat Defenders" https://siteselection.com/issues/2018/mar/top-metros-2017-repeat-defenders.cfm "Great Things Happen Here HQ2 or Not" https://siteselection.com/issues/2019/mar/top-metros-of-2018-great-things-happen-here-hq2-or-not.cfm

[xxi] IBM, "Global Locations Trends 2018 Annual Report," https://www.ibm.com/downloads/cas/R9VW3VO5

[xxii] World Business Chicago. http://www.worldbusinesschicago.com/economy/

[xxiii] Source: Reprinted with permission from the February 11, 2019 issue of Crain's Chicago Business, © 2019 Crain Communications Inc. All Rights Reserved.

[xxiv] Source: Cook County Clerk.

[xxv] Chicago Department of Aviation, "Monthly Operations, Passengers, Cargo Summary By Class, November 2018," https://www.flychicago.com/SiteCollectionDocuments/Business/FactAndFigures/AirTraffic/1218%20ORD%20SUMMARY.pdf

[xxvi] Kansas City Southern Railroad, "Our Network," https://www.kcsouthern.com/en-us/why-choose-kcs/our-network/network-map

Statista, "Leading North American railroads in 2018, based on operating revenue (in billion U.S. dollars)," https://www.statista.com/statistics/271613/leading-north-american-railroad-companies-based-on-revenue/

[xxvii] 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

[xxviii] Wittman, Michael and William Swelbar. 2013. "Modeling Changes in Connectivity at U.S. Airports: A Small Community Perspective." Massachusetts Institute of Technology Small Community Air Service White Paper No. 2. https://dspace.mit.edu/bitstream/handle/1721.1/79091/ICAT-2013-05.pdf

[xxix] Airports Council International "2018 ACI Annual Preliminary Worldwide Airport Traffic Report," https://aci.aero/news/2019/03/13/preliminary-world-airport-traffic-rankings-released/

[xxx] https://www.flychicago.com/business/media/news/pages/article.aspx?newsid=1536

[xxxi] 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

[xxxii] Chicago Transit Authority, "CTA Facts at a Glance, Fall 2017," http://www.transitchicago.com/about/facts.aspx

[xxxiii] Chicago Public Schools, "Stats and Facts," http://cps.edu/About_CPS/At-a-glance/Pages/Stats_and_facts.aspx

[xxxiv] Colleges of Chicago, "Fiscal Year 2019 Statistical Digest," https://app.powerbi.com/view?r=eyJrIjoiNDRhOTFiY2YtMjgzMi00ZDU0LTgyM2MtZWNhMWM5MTA2NjliIiwidCI6IjUzNWU4MGQ1LTk5YTktNGZjOC1hODJhLWJhZWIyOTRkYTIzNiIsImMiOjN9

[xxxv] Choose Chicago, "Chicago Fun Facts," http://www.choosechicago.com/articles/view/chicago-fun-facts/452/

[xxxvi] Source: City of Chicago 2018 CAFR for fiscal years 2011-2018 and the 2020 Budget Overview for fiscal years 2019 and 2020. Includes full time equivalent positions in grant related programs.

[xxxvii] Illinois Association of Realtors, "City of Chicago Monthly Housing Market Reports," https://www.illinoisrealtors.org/marketstats/

[xxxviii] Illinois Association of Realtors, "City of Chicago Monthly Housing Market Reports," https://www.illinoisrealtors.org/marketstats/

APPENDIX C

CITY OF CHICAGO BASIC FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 2018

[THIS PAGE INTENTIONALLY LEFT BLANK]

Deloitte.

City of Chicago

Basic Financial Statements, Required Supplementary Information, and Independent Auditors' Report as of and for the Year Ended December 31, 2018

Lori E. Lightfoot, Mayor

Jennie Huang Bennett, Chief Financial Officer
Erin Keane, City Comptroller

This Page Intentionally Left Blank

CITY OF CHICAGO, ILLINOIS
YEAR ENDED DECEMBER 31, 2018
TABLE OF CONTENTS

This Page Intentionally Left Blank

Deloitte.

Deloitte & Touche LLP
111 South Wacker Drive
Chicago, IL 60606-4301
USA

Tel: +1 312 486 1000
Fax: +1 312 486 1486
www.deloitte.com

INDEPENDENT AUDITORS' REPORT

To the Honorable Lori E. Lightfoot, 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, 2018, 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, 2018, 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.

Emphasis of Matter

As discussed in Notes 1 and 18 to financial statements, beginning net position was restated due to the City's adoption of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits other than Pensions*. Our opinion is not modified with respect to this matter.

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 Changes in Total OPEB Liability and Related Ratios, 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.

Deloitte & Touche LLP

June 25, 2019

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, 2018. We encourage the readers to consider the information presented here in conjunction with information that we have furnished in our letter of transmittal, contained within this report.

2018 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 $29,364.7 million (*net deficit*). The net deficit is composed of $3,966.7 million in net investment in capital assets and $3,445.6 million in net position restricted for specific purposes offset by an unrestricted deficit of $36,777.0 million. The net deficit increased in 2018 by $996.6 million as a result of a $558.7 million increase in the Other Post Employment Benefits (OPEB) liability due to the new financial reporting requirements of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75") and due to expenses being greater than revenues by $437.9 million for 2018.

- The City's total assets increased by $2,451.0 million. This increase primarily relates to a $1,230.1 million net increase in cash, cash equivalents and investments due to debt issuances and a $1,066.2 million increase in capital assets as a result of the City's capital improvement program.

- The City's deferred outflows and deferred inflows decreased by $1,233.6 million and $2,045.5 million, respectively, primarily due to changes in assumptions for pension activities. The City's total liabilities increased by $4,259.5 million. These were primarily related to increases in net pension liability of $2,074.5 million, $1,684.2 million increase of Chicago-O'Hare revenue bonds and $558.7 million increase in OPEB due to the restatement for GASB 75.

- Total Revenues and Other Financing Sources (Uses), in the fund financial statements, during 2018 were $7,876.0 million, a decrease of $180.9 million (2.2%) from 2017. The change was primarily related to a decrease in debt issuances, offset by an increase in tax revenues.

- The General Fund ended 2018 with a total Fund Balance of $332.3 million, of which $161.9 million was Unassigned. Total Fund Balance increased from 2017 primarily because Revenues and Other Financing Sources were greater than Expenditures and Other Financing Uses by $44.4 million.

- The City's General Obligation Bonds and notes outstanding decreased by $1,478.8 million during the current fiscal year due to General Obligation Bonds and other debt payments and refundings of $1,635.2 million, offset by a net increase in Line of Credit balances of $156.4 million. There were no General Obligation Bonds issued in 2018.

- The General Fund expenditures on a budgetary basis were $113.9 million less than budgeted due to positive variances for debt service transfers.

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:

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, Skyway 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, 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.

Additional Information. The combining statements, which include nonmajor funds, for governmental funds and trust and agency funds are presented immediately following the notes to the 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 $29,364.7 million at December 31, 2018. Of this amount, $3,966.7 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.

An additional portion of the City's net position, $3,445.6 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	
	2018	2017	2018	2017	2018	2017
Current and other assets	$ 6,709.0	$ 6,639.4	$ 7,427.6	$ 6,112.4	$ 14,136.6	$ 12,751.8
Capital assets	8,798.6	8,745.6	17,450.7	16,437.5	26,249.3	25,183.1
Total Assets	15,507.6	15,385.0	24,878.3	22,549.9	40,385.9	37,934.9
Deferred outflows	3,148.6	4,089.9	902.6	1,194.9	4,051.2	5,284.8
Total	18,656.2	19,474.9	25,780.9	23,744.8	44,437.1	43,219.7
Long-term liabilities outstanding	39,518.9	37,411.5	20,824.2	18,771.4	60,343.1	56,182.9
Other liabilities	2,423.4	2,364.5	1,561.9	1,521.5	3,985.3	3,886.0
Total Liabilities	41,942.3	39,776.0	22,386.1	20,292.9	64,328.4	60,068.9
Deferred Inflows	6,841.6	8,413.7	2,631.8	3,105.2	9,473.4	11,518.9
Net Position:						
Net investment in capital assets	(332.2)	(551.1)	4,298.9	3,866.0	3,966.7	3,314.9
Restricted	2,509.1	2,416.1	936.5	868.0	3,445.6	3,284.1
Unrestricted	(32,304.6)	(30,579.8)	(4,472.4)	(4,387.3)	(36,777.0)	(34,967.1)
Total net (deficit) position	$ (30,127.7)	$ (28,714.8)	$ 763.0	$ 346.7	$ (29,364.7)	$ (28,368.1)

Governmental Activities. Net position of the City's governmental activities decreased $1,412.9 million to a deficit of $30,127.7 million primarily due to an increase of $558.7 million in the Other Post Employment Benefits liability due to the new financial reporting requirements of GASB Statement No. 75 and due to expenses being greater than revenues and transfers by $854.2 million for 2018. 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 $32,304.6 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 ($1,076.8 million) and Municipal Employees', Laborers', Policemen's and Firemen's net pension liability and other post-employment benefits ($27,446.2 million). The City will include these amounts in future years' budgets as they come due. In addition, the deferred inflow balance of $1,492.2 million from concession service agreements will be amortized into income over the life of such agreements.

Revenues for all governmental activities in 2018 were $7,445.1 million, an increase of $509.7 million from 2017. Over half of the City's revenues were derived from taxes which increased by $387.8 million (9.0%). In addition, Other revenues increased by $80.3 million (26.0%) primarily due to the gain on the sale of capital assets.

Expenses for governmental activities in 2018 were $8,301.8 million, an increase of $121.6 million (1.5%) over 2017. The amount that taxpayers paid for these governmental activities through City taxes was $4,673.8 million. Some of the cost was paid by those who directly benefited from the programs ($911.2 million), or by other governments and organizations that subsidized certain programs with grants and contributions ($682.7 million).

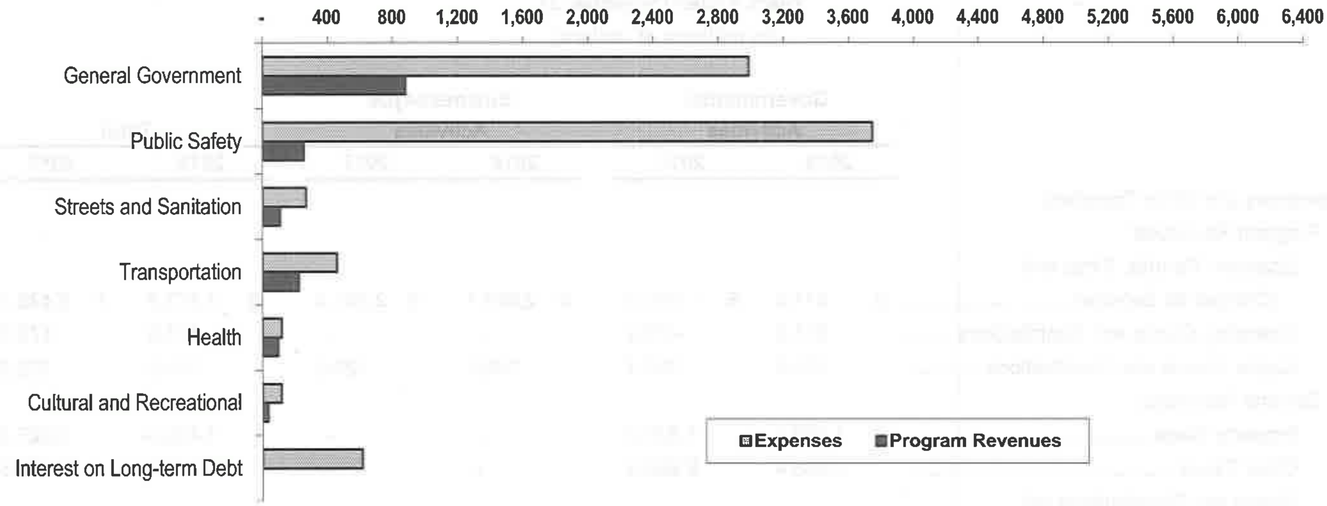
The City paid $1,177.3 million for the "public benefit" portion with other revenues such as state aid, interest and miscellaneous income.

Although total net position of business-types activities was $763.0 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.

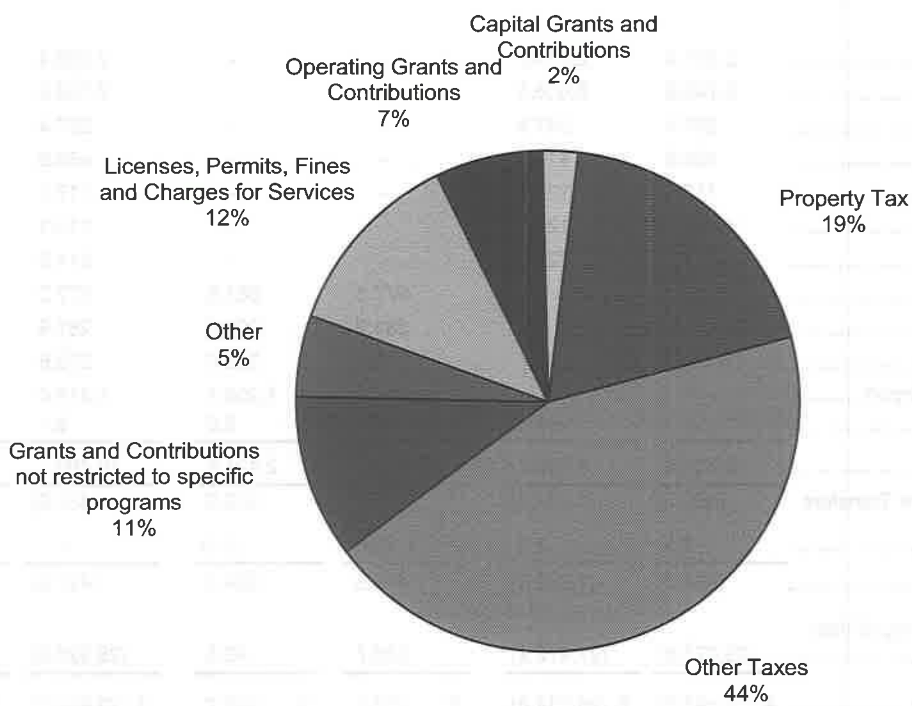
City of Chicago, Illinois
Changes in Net Position
Years Ended December 31,
(in millions of dollars)

	Governmental Activities		Business-type Activities		Total	
	2018	2017	2018	2017	2018	2017
Revenues and Other Transfers:						
Program Revenues:						
Licenses, Permits, Fines and Charges for Services	$ 911.2	$ 900.3	$ 2,661.1	$ 2,527.8	$ 3,572.3	$ 3,428.1
Operating Grants and Contributions	511.9	473.2	-	-	511.9	473.2
Capital Grants and Contributions	170.8	205.5	140.1	120.0	310.9	325.5
General Revenues:						
Property Taxes	1,405.4	1,327.2	-	-	1,405.4	1,327.2
Other Taxes	3,268.4	2,958.8	-	-	3,268.4	2,958.8
Grants and Contributions not Restricted to Specific Programs	788.7	762.0	-	-	788.7	762.0
Other	388.7	308.4	96.5	83.6	485.2	392.0
Total Revenues	7,445.1	6,935.4	2,897.7	2,731.4	10,342.8	9,666.8
Expenses:						
General Government	2,985.4	2,914.7	-	-	2,985.4	2,914.7
Public Safety	3,746.8	3,636.1	-	-	3,746.8	3,636.1
Streets and Sanitation	267.4	247.8	-	-	267.4	247.8
Transportation	458.6	414.0	-	-	458.6	414.0
Health	117.2	124.1	-	-	117.2	124.1
Cultural and Recreational	115.1	121.5	-	-	115.1	121.5
Interest on Long-term Debt	611.3	722.0	-	-	611.3	722.0
Water	-	-	577.3	581.6	577.3	581.6
Sewer	-	-	281.9	293.0	281.9	293.0
Midway International Airport	-	-	293.6	285.0	293.6	285.0
Chicago-O'Hare International Airport	-	-	1,318.0	1,256.7	1,318.0	1,256.7
Chicago Skyway	-	-	8.1	8.5	8.1	8.5
Total Expenses	8,301.8	8,180.2	2,478.9	2,424.8	10,780.7	10,605.0
Change in Net Position Before Transfers	(856.7)	(1,244.8)	418.8	306.6	(437.9)	(938.2)
Transfers In (Out)	2.5	2.2	(2.5)	(2.2)	-	-
Change in Net Position	(854.2)	(1,242.6)	416.3	304.4	(437.9)	(938.2)
Net (Deficit) Position, Beginning of Year as Restated (Note 18)	(29,273.5)	(27,472.2)	346.7	42.3	(28,926.8)	(27,429.9)
Net (Deficit) Position, End of Year	$ (30,127.7)	$ (28,714.8)	$ 763.0	$ 346.7	$ (29,364.7)	$ (28,368.1)

Expenses and Program Revenues - Governmental Activities
(in millions of dollars)



Revenues by Source - Governmental Activities



Business-type Activities. Total Revenues of the City's business-type activities increased by $166.3 million in 2018 mostly from an increase in charges for services, rental income, and other general revenues.

- The Water Fund's total operating revenues increased by $14.9 million (2.0%) from 2017 primarily due to a decrease in the provision for doubtful accounts resulting from collected water charges from prior years accounts receivable and an increase in water fees of $4.9 million (0.6%) offset by a decrease in penalties resulting from the collected water charges from prior year accounts. Operating expenses before depreciation and amortization for the year ended 2018 increased by $9.1 million (2.3%) from the year ended 2017 primarily due to an increase in transmission and distribution of $20.1 million, central services and general fund reimbursement of $5.3 million and customer accounting and collection of $4.0 million offset by a decrease in pension expense of $21.6 million.

- The Sewer Fund's total operating revenues increased in 2018 by $12.1 million (3.4%) primarily due to pumpage and rate increases during the year that were offset by continued conversion of non-metered customers to metered customers. There was a rate increase of 1.54% during 2018. Operating expenses before depreciation and amortization for 2018 decreased $7.7 million (4.7%) from 2017 primarily due to a decrease in pension expense.

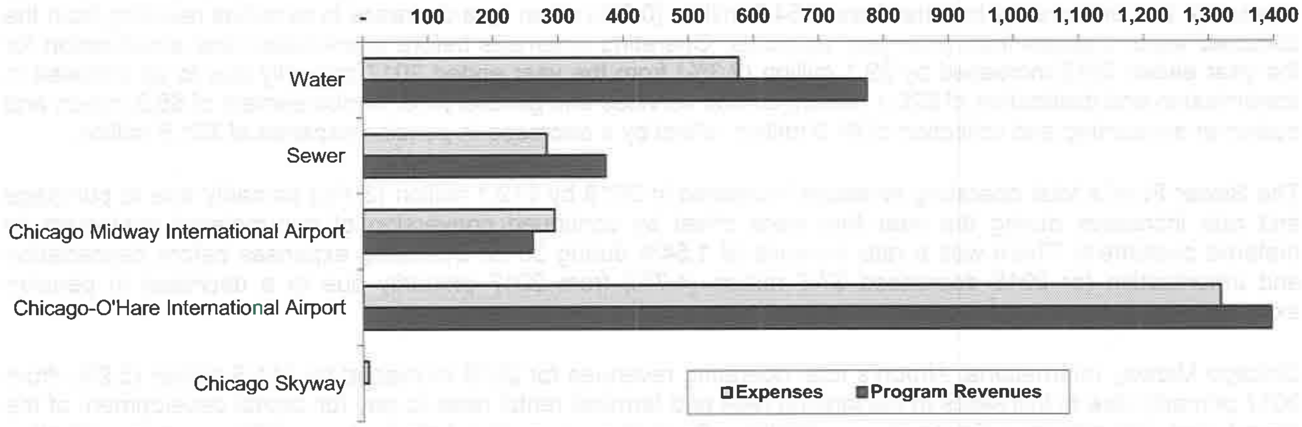
- Chicago Midway International Airport's total operating revenues for 2018 increased by $11.5 million (5.9%) from 2017 primarily due to increases in the landing fees and terminal rental rates to pay for capital development of the airport and operational infrastructure reliability. Operating expenses before depreciation and amortization increased by $10.4 million (6.11%) compared to 2017 due to increases in salaries and wages of $3.2 million due to increased public safety presence, pension expense of $2.6 million primarily as a result of composition of amounts being amortized from deferred inflows and outflows related to prior assumptions changes and differences between projected and actual earnings on pension plan investments, and repairs and maintenance of $2.8 million due to increased equipment and fuel maintenance.

- Chicago O'Hare International Airport's total operating revenues for 2018 increased by $85.7 million (8.8%) compared to 2017 due to increases in terminal rents and landing fees to fund capital development, increase in cargo and hangar ground rents of $2.00/sq. ft. on airport property outside of the airfield area and $2.25/sq. ft. in the airfield area as leases were finalized in 2017 and the full year impact was realized in 2018. In 2018, the City Council approved the new Airline Use and Lease Agreement ("AULA") for airlines operating at O'Hare, which went into effect as of July 1, 2018 for provisions regarding rates and charges. 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, the AULA allows the City to commence a $6.1 billion terminal expansion program (known as the Terminal Area Plan or "TAP") that includes construction of new gates and concourses, in addition to $2.4 billion in additional pre-approved capital projects.

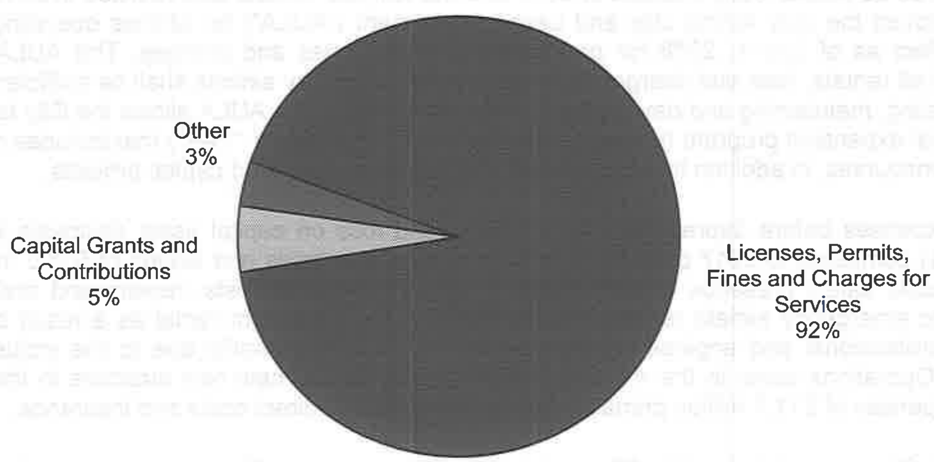
  Operating expenses before depreciation, amortization and loss on capital asset disposals increased by $57.8 million (8.9%) compared to 2017 primarily due to increases in salaries and wages of $16.6 million as a result of increased public safety presence and increases in medical benefits costs, repairs and maintenance of $19.7 million due to emergency airfield repairs and additional snow equipment rental as a result of extreme weather conditions, professional and engineering services of $9.8 million primarily due to the inclusion of the CATCo Consortium Operations costs in the Airport's budget based on the new rate structure in the AULA, and other operating expenses of $11.7 million primarily due to increases in indirect costs and insurance.

- 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).

Expenses and Program Revenues - Business-type Activities (in millions of dollars)



Revenues by Source - Business-type Activities



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, 2018, the City's governmental funds reported combined ending fund balances of $1,728.2 million, an increase of $106.3 million in comparison with the prior year. Of this total amount, $821.5 million was committed to specific expenditures, $145.2 million was assigned to anticipated uses, a deficit of $3,365.9 million was unassigned, $2,011.3 million was restricted in use by legislation, and $2,116.1 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 $161.9 million with a total fund balance of $332.3 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 9.2% of total General Fund expenditures. The fund balance of the City's General Fund increased by approximately $44.0 million during the current fiscal year due to other financing sources offset by expenditures greater than revenues.

The Federal, State and Local Grants Fund has a total deficit fund balance of $198.7 million. The deficit is $42.7 million lower than 2017 primarily due to more timely reimbursement of expenditures.

The Special Taxing Areas Fund has a total fund balance of $1,471.7 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 $652.5 million committed to specific expenditures. The unassigned deficit of $1,492.2 million results from the deferred inflows from long-term asset leases.

The Bond, Note Redemption and Interest Fund has a total fund deficit of $1,785.9 million. This is $1,456.9 million lower than 2017, primarily due to the refunding of certain outstanding City bonds.

The STSC Debt Service Fund has a total fund balance of $2,148.7 million. The fund balance will be used for future debt service payments for certain outstanding bonds. In 2018, the STSC Fund Balance for nonspendable increased by $1.3 billion due to the issuance of Bond Series 2018AB and Bond Series 2018C. The net proceeds will be amortized over the life of each bond.

The Community Development and Improvement Projects Fund has a total fund balance of $347.8 million. This is $1.8 million higher than 2017.

Changes in fund balance. The fund balance for the City's governmental funds increased by $106.3 million in 2018. This includes a decrease in inventory of $0.5 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 $4,472.4 million. The unrestricted net position deficit increased by $85.1 million primarily due to an increase in net pension liability. Other factors concerning the finances of these five funds have already been addressed in the discussion of the City's business-type activities.

General Fund Budgetary Highlights

The City's 2018 General Fund Budget of $3,852.5 million was approved by City Council on November 21, 2017. General Fund revenues ended the year $83.2 million under the 2018 Final General Fund Budget primarily as a result of not using $37 million of budgeted prior year available fund balance and lower than anticipated revenues from other sources. Expenditures were $113.9 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, 2018 amount to $26,249.3 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 2018, the City completed $431.9 million in infrastructure projects including $374.1 million in street construction and resurfacing projects, $33.7 million in street lighting and transit projects, and $19.3 million in bridge and viaduct reconstruction, and $4.8 million in storm water projects. At year end, infrastructure projects still in process had expenses totaling nearly $566.1 million.

- At the end of 2018, the new facilities of the Department of Fleet and Facilities Management currently had a construction in progress balance of $36.0 million. The largest facility, located at 69th and Wentworth Avenue, opened in February 2019.

- At the end of 2018 the Water Fund had $4,755.9 million invested in utility plant, net of accumulated depreciation. During 2018, the Water Fund expended $391.6 million on capital activities. This included $0.3 million for structures and improvements, $124.7 million for distribution plant, $13.5 million for equipment and $253.1 million for construction in progress. During 2018, net completed projects totaling $234.9 million were transferred from construction in progress to applicable capital accounts. The major completed projects were installation and replacement of water mains ($183.9 million), meter save program ($26.3 million), and Jardine Water Purification Plant mixing and settling basin equipment ($6.7 million).

- At the end of 2018, the Sewer Fund had net utility plant of $2,735.4 million. During 2018, the Sewer Fund had capital additions being depreciated of $237.5 million, and completed projects totaling $59.0 million were transferred from construction in progress to applicable facilities and structures capital accounts. The 2018 Sewer Main Replacement Program completed 21.8 miles of sewer mains and 44.5 miles of relining of existing sewer mains.

- At the end of 2018, Chicago-Midway International Airport had $1,196.7 million invested in net capital assets. During 2018, the Airport had additions of $80.9 million related to capital activities. Construction projects include runway rehabilitation, and passenger security checkpoint and terminal garage enhancements. During 2018, completed projects totaling $18.0 million were transferred from construction in progress to applicable buildings and other facilities capital accounts. These major completed projects were related to building security, runway and taxi improvements and parking enhancements.

- At the end of 2018, Chicago-O'Hare International Airport had $8.5 billion invested in net capital assets. During 2018, the Airport had additions of $825.4 million related to capital activities. This included construction for relocation of airline facilities, Central De-icing Pad, Bravo Pad Parking, CONRAC/ parking, ATS rail, terminal improvements, 9C-27C runway construction and taxiway improvements. During 2018 completed projects totaling $849.9 million were transferred from construction in progress to applicable buildings and other facilities capital accounts. These major completed projects were related to Central De-icing Pad, CONRAC/ Parking, Fuel Line Relocation projects, Bravo Pad Parking, terminal improvements, and runway and taxiway improvements.

City of Chicago, Illinois
Capital Assets (net of depreciation)
(in millions of dollars)

	Governmental Activities		Business-type Activities		Total	
	2018	2017	2018	2017	2018	2017
Land	$ 1,409.5	$ 1,399.8	$ 1,028.5	$ 1,028.7	$ 2,438.0	$ 2,428.5
Works of Art and Historical Collections	48.1	47.0	-	-	48.1	47.0
Construction in Progress	637.2	694.0	1,922.0	1,873.7	2,559.2	2,567.7
Buildings and Other Improvements	1,492.8	1,534.6	14,134.0	13,174.9	15,626.8	14,709.5
Machinery and Equipment	299.1	285.0	366.2	360.2	665.3	645.2
Infrastructure	4,911.9	4,785.2	-	-	4,911.9	4,785.2
Total	$ 8,798.6	$ 8,745.6	$ 17,450.7	$ 16,437.5	$ 26,249.3	$25,183.1

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 $7,993.8 million in General Obligation Bonds/Line of Credit and $214.0 million in General Obligation Certificates and Other Obligations outstanding. Other outstanding long-term debt is as follows: $2,036.4 million in Sales Tax Securitization Corporation Bonds (STSC Bonds); $249.9 million in Motor Fuel Tax Revenue Bonds; $19.9 million in Tax Increment Financing Bonds; and $16,382.4 million in Enterprise Fund Bonds and long-term obligations. For more detail, refer to Note 10 Long-term Obligations in the Basic Financial Statements.

City of Chicago, Illinois
General Obligation and Revenue Bonds
(in millions of dollars)

	Governmental Activities		Business-type Activities		Total	
	2018	2017	2018	2017	2018	2017
General Obligation	$ 8,207.8	$ 9,686.6	$ -	$ -	$ 8,207.8	$ 9,686.6
Tax Increment	19.9	27.9	-	-	19.9	27.9
Revenue Bonds	249.9	254.2	16,382.4	14,652.0	16,632.3	14,906.2
STSC Bonds	2,036.4	743.7	-	-	2,036.4	743.7
Total	$ 10,514.0	$ 10,712.4	$ 16,382.4	$ 14,652.0	$ 26,896.4	$ 25,364.4

During 2018, the City and the STSC issued the following:

Enterprise Fund Revenue Bonds and Notes:

- Chicago – O'Hare International Airport Commercial Paper Notes ($138.8 million).
- Chicago – O'Hare International General Airport Senior Lien Revenue and Revenue Refunding Bonds, Series 2018A (AMT), Series 2018B (Non-AMT) and Series 2018C (Taxable) ($2,012.9 million).
- Chicago – Midway International Airport Second Lien Revenue Refunding Bonds Series 2018A (Taxable) ($45.7 million).

Sales Tax Securitization Corporation Bonds:

- Sales Tax Securitization Bonds Series 2018A and Taxable Series 2018B ($680.3 million).
- Sales Tax Securitization Bonds Series 2018C ($612.4 million).

At December 31, 2018 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-	A
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-
Motor Fuel Tax	Ba1	BB+	BBB-	NR
Sales Tax Securitization Corporation Bonds		AA-	AAA	AAA

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 defeased.

See Subsequent Events in the footnotes for ratings changes in 2019.

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 2018, the unemployment rate in the Chicago metropolitan area was 4.0%, 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 2.4% increase over the 2017 median sale price. Tourism and business travel to Chicago increased by 4.3% over 2017 levels, reaching 57.6 million visitors in 2018. The Chicago tourism industry supported an estimated 150,000 jobs in 2018.

The City's 2019 General Fund Budget, totaling $3,877.0 million, was approved by a 48 to 1 vote of City Council on November 14, 2018. The 2019 budget closed an operating budget deficit of $97.9 million through a combination of reforms, spending cuts, and revenue growth. The 2019 budget includes a $10 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.

This Page Intentionally Left Blank

Exhibit 1
CITY OF CHICAGO, ILLINOIS
STATEMENT OF NET POSITION
December 31, 2018
(Amounts are in Thousands of Dollars)

	Primary Government		
	Governmental Activities	Business-type Activities	Total
ASSETS AND DEFERRED OUTFLOWS			
Cash and Cash Equivalents	$ 1,344,338	$ 674,952	$ 2,019,290
Investments	1,158,227	380,033	1,538,260
Receivables (Net of Allowances):			
Property Tax	2,004,049	-	2,004,049
Accounts and Due From Other Governments	1,067,614	477,324	1,544,938
Internal Balances	(68,704)	68,704	-
Inventories	25,463	21,242	46,705
Restricted Assets:			
Cash and Cash Equivalents	93,179	4,218,984	4,312,163
Investments	584,884	1,510,458	2,095,342
Cash and Investments with Escrow Agent	491,341	-	491,341
Interest Receivable	-	13,461	13,461
Other Assets	8,610	62,467	71,077
Capital Assets:			
Land, Art, and Construction in Progress	2,094,891	2,950,560	5,045,451
Other Capital Assets, Net of Accumulated Depreciation	6,703,703	14,500,102	21,203,805
Total Capital Assets	8,798,594	17,450,662	26,249,256
Total Assets	15,507,595	24,878,287	40,385,882
Deferred Outflows	3,148,560	902,604	4,051,164
Total Assets and Deferred Outflows	$ 18,656,155	$ 25,780,891	$ 44,437,046
LIABILITIES AND DEFERRED INFLOWS			
Voucher Warrants Payable	$ 843,167	$ 578,487	$ 1,421,654
Short-term Debt	-	2,040	2,040
Accrued Interest	283,196	309,351	592,547
Accrued and Other Liabilities	1,197,275	322,978	1,520,253
Unearned Revenue	99,747	328,801	428,548
Derivative Instrument Liability	-	20,239	20,239
Long-term Liabilities:			
Due Within One Year	264,118	492,040	756,158
Due in More Than One Year	39,254,777	20,332,152	59,586,929
Total Liabilities	41,942,280	22,386,088	64,328,368
Deferred Inflows	6,841,569	2,631,782	9,473,351
Total Liabilities and Deferred Inflows	48,783,849	25,017,870	73,801,719
NET POSITION			
Net Investment in Capital Assets	(332,211)	4,298,879	3,966,668
Restricted for:			
Capital Projects	416,037	257,815	673,852
Debt Service	621,315	15,900	637,215
Special Taxing Areas	1,471,732	-	1,471,732
Passenger Facility Charges	-	231,621	231,621
Contractual Use Agreement	-	190,867	190,867
Airport General Fund	-	137,216	137,216
Customer Facility Charges	-	42,267	42,267
Other Purposes	-	60,854	60,854
Unrestricted (Deficit)	(32,304,567)	(4,472,398)	(36,776,965)
Total Net (Deficit)/Position	$ (30,127,694)	$ 763,021	$ (29,364,673)

See notes to basic financial statements.

Exhibit 2
CITY OF CHICAGO, ILLINOIS
STATEMENT OF ACTIVITIES
Year Ended December 31, 2018
(Amounts are in Thousands of Dollars)

Functions/Programs	Expenses	Licenses, Permits, Fines and Charges for Services
Primary Government		
Governmental Activities:		
General Government	$ 2,985,409	$ 523,026
Public Safety	3,746,763	205,401
Streets and Sanitation	267,444	107,880
Transportation	458,611	53,247
Health	117,199	6,166
Cultural and Recreational	115,130	15,510
Interest on Long-term Debt	611,296	-
Total Governmental Activities	8,301,852	911,230
Business-type Activities:		
Water	577,264	773,960
Sewer	281,948	369,703
Chicago Midway International Airport	293,594	253,504
Chicago-O'Hare International Airport	1,318,038	1,263,971
Chicago Skyway	8,140	-
Total Business-type Activities	2,478,984	2,661,138
Total Primary Government	$ 10,780,836	$ 3,572,368

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
$ 355,536	$ -	$ (2,106,847)	$ -	$ (2,106,847)
48,389	-	(3,492,973)	-	(3,492,973)
-	-	(159,564)	-	(159,564)
-	170,830	(234,534)	-	(234,534)
89,667	-	(21,366)	-	(21,366)
18,321	-	(81,299)	-	(81,299)
-	-	(611,296)	-	(611,296)
511,913	170,830	(6,707,879)	-	(6,707,879)
-	-	-	196,696	196,696
-	2,274	-	90,029	90,029
-	6,776	-	(33,314)	(33,314)
-	131,020	-	76,953	76,953
-	-	-	(8,140)	(8,140)
-	140,070	-	322,224	322,224
$ 511,913	$ 310,900	(6,707,879)	322,224	(6,385,655)

	Governmental Activities	Business-type Activities	Total
General Revenues			
Taxes:			
Property Tax	1,405,396	-	1,405,396
Utility Tax	700,823	-	700,823
Sales Tax	361,482	-	361,482
Transportation Tax	506,193	-	506,193
Transaction Tax	547,262	-	547,262
Special Area Tax	703,261	-	703,261
Recreation Tax	279,515	-	279,515
Other Taxes	169,899	-	169,899
Grants and Contributions not Restricted to Specific Programs	788,737	-	788,737
Unrestricted Investment Earnings	26,087	50,628	76,715
Gain on Sale of Capital Assets	79,527	-	79,527
Miscellaneous	282,990	45,953	328,943
Transfers	2,540	(2,540)	-
Total General Revenues and Transfers	5,853,712	94,041	5,947,753
Change in Net Position	(854,167)	416,265	(437,902)
Net Position - Beginning, as restated (Note 18)	(29,273,527)	346,756	(28,926,771)
Net Position - Ending	$ (30,127,694)	$ 763,021	$ (29,364,673)

Exhibit 3
CITY OF CHICAGO, ILLINOIS
BALANCE SHEET
GOVERNMENTAL FUNDS
December 31, 2018
(Amounts are in Thousands of Dollars)

	General	Federal, State and Local Grants	Special Taxing Areas
ASSETS			
Cash and Cash Equivalents	$ 197,712	$ -	$ 496,095
Investments	138,872	78,550	680,889
Receivables (Net of Allowances):			
Property Tax	-	-	587,786
Accounts	250,109	2,436	4,567
Due From Other Funds	220,143	25,358	218,608
Due From Other Governments	49,768	446,084	-
Inventories	25,463	-	-
Restricted Cash and Cash Equivalents	-	3,218	-
Restricted Investments	-	-	-
Restricted Cash and Investments with Escrow Agent	-	-	-
Other Assets	-	3,267	-
Total Assets	$ 882,067	$ 558,913	$ 1,987,945
LIABILITIES, DEFERRED INFLOWS AND FUND BALANCE			
Liabilities:			
Voucher Warrants Payable	$ 224,475	$ 165,182	$ 50,166
Bonds, Notes and Other Obligations Payable - Current	-	-	-
Accrued Interest	-	-	-
Due To Other Funds	163,969	263,367	1,901
Accrued and Other Liabilities	136,713	6,559	2,255
Claims Payable	21,055	-	-
Unearned Revenue	603	99,144	-
Total Liabilities	546,815	534,252	54,322
Deferred Inflows	2,925	223,409	461,891
Fund Balance:			
Nonspendable	25,463	-	-
Restricted	-	12,371	1,471,732
Committed	-	-	-
Assigned	145,000	-	-
Unassigned	161,864	(211,119)	-
Total Fund Balance	332,327	(198,748)	1,471,732
Total Liabilities, Deferred Inflows and Fund Balance	$ 882,067	$ 558,913	$ 1,987,945

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
$ -	$ 33,932	$ -	$ 284,858	$ 215,800	$ 115,941	$ 1,344,338
-	66,215	-	151,902	-	41,799	1,158,227
-	519,752	-	-	870,175	26,336	2,004,049
4,089	1,933	57,704	2,346	1,095	213,932	538,211
-	412	2,090,686	15,428	64,116	105,540	2,740,291
-	2,935	-	-	-	30,616	529,403
-	-	-	-	-	-	25,463
63,490	-	-	-	-	26,471	93,179
584,884	-	-	-	-	-	584,884
-	423,190	31,749	-	-	36,402	491,341
-	-	-	-	-	-	3,267
$ 652,463	$ 1,048,369	$ 2,180,139	$ 454,534	$ 1,151,186	$ 597,037	$ 9,512,653
$ 7	$ -	$ 242	$ 60,903	$ 281,319	$ 58,456	$ 840,750
-	77,037	-	-	-	-	77,037
-	251,859	31,167	-	-	170	283,196
-	2,090,686	-	44,092	176,042	244,980	2,985,037
-	-	-	1,754	-	11,948	159,229
-	-	-	-	-	-	21,055
-	-	-	-	-	-	99,747
7	2,419,582	31,409	106,749	457,361	315,554	4,466,051
1,492,160	414,677	-	-	693,825	29,485	3,318,372
-	-	2,090,686	-	-	-	2,116,149
-	-	58,044	347,785	-	121,338	2,011,270
652,456	-	-	-	-	169,067	821,523
-	-	-	-	-	231	145,231
(1,492,160)	(1,785,890)	-	-	-	(38,638)	(3,365,943)
(839,704)	(1,785,890)	2,148,730	347,785	-	251,998	1,728,230
$ 652,463	$ 1,048,369	$ 2,180,139	$ 454,534	$ 1,151,186	$ 597,037	$ 9,512,653

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	8,798,594
Other long-term assets are not available to pay for current-period expenditures and therefore are recorded as deferred inflows in the funds	1,826,212
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	5,343
Certain liabilities, including bonds payable, deferred inflows and deferred outflows are not due and payable in the current period and therefore are not reported in the funds	(42,486,073)
Net position of governmental activities	$ (30,127,694)

Exhibit 4
CITY OF CHICAGO, ILLINOIS
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
GOVERNMENTAL FUNDS
Year Ended December 31, 2018
(Amounts are in Thousands of Dollars)

	General	Federal, State and Local Grants	Special Taxing Areas
Revenues:			
Property Tax	$ -	$ -	$ -
Utility Tax	432,060	-	-
Sales Tax (Local)	56,986	-	-
Transportation Tax	307,084	-	-
State Income Tax	392,449	-	-
State Sales Tax	-	-	-
Transaction Tax	477,507	-	-
Special Area Tax	-	-	673,523
Recreation Tax	279,515	-	-
Other Taxes	146,030	-	-
Federal/State Grants	3,444	733,417	-
Internal Service	270,172	-	-
Licenses and Permits	139,792	-	-
Fines	336,900	-	-
Investment Income	1,627	-	6,076
Charges for Services	193,489	-	6
Miscellaneous	104,694	-	1,932
Total Revenues	3,141,749	733,417	681,537
Expenditures:			
Current:			
General Government	1,064,874	390,608	410,072
Health	30,767	85,790	-
Public Safety	2,229,455	54,839	461
Streets and Sanitation	206,499	-	1
Transportation	54,376	143,555	53,799
Cultural and Recreational	-	12,579	-
Employee Pensions	-	-	-
Other	1,258	1,012	4,473
Capital Outlay	-	2,380	-
Debt Service:			
Principal Retirement	2,250	-	-
Interest and Other Fiscal Charges	7,974	-	-
Total Expenditures	3,597,453	690,763	468,806
Revenues (Under) Over Expenditures	(455,704)	42,654	212,731

Continued on following pages.

Service Concession and Reserve	Bond, Note Redemption and Interest	STSC Debt Service	Community Development and Improvement Projects	Pension	Nonmajor Governmental Funds	Total Governmental Funds
$ -	$ 530,031	$ -	$ -	$ 870,534	$ -	$ 1,400,565
-	22,324	-	-	-	243,278	697,662
-	-	38,651	-	-	265,845	361,482
-	11,817	-	-	-	187,292	506,193
-	-	-	-	-	-	392,449
-	-	50,220	-	-	342,624	392,844
-	-	-	-	-	69,755	547,262
-	-	-	-	-	25,616	699,139
-	-	-	-	-	-	279,515
-	-	-	-	-	23,869	169,899
-	-	-	-	-	-	736,861
-	-	-	-	-	28,324	298,496
-	2,674	-	-	-	-	142,466
-	-	-	-	-	18,195	355,095
(191)	7,184	-	5,694	190	5,507	26,087
-	-	-	-	-	40,901	234,396
21,033	9,127	-	22,160	103,063	20,981	282,990
20,842	583,157	88,871	27,854	973,787	1,272,187	7,523,401
-	-	-	-	-	267,047	2,132,601
-	-	-	-	-	-	116,557
-	-	-	31,000	-	96,096	2,411,851
-	-	-	-	-	52,951	259,451
-	-	-	-	-	104,030	355,760
-	-	-	-	-	85,154	97,733
-	-	-	-	1,159,227	-	1,159,227
-	-	-	-	-	391	7,134
-	-	-	239,700	-	46,844	288,924
-	203,960	-	-	-	129,060	335,270
-	514,472	67,161	-	-	15,161	604,768
-	718,432	67,161	270,700	1,159,227	796,734	7,769,276
20,842	(135,275)	21,710	(242,846)	(185,440)	475,453	(245,875)

Exhibit 4 - Concluded
CITY OF CHICAGO, ILLINOIS
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
GOVERNMENTAL FUNDS
Year Ended December 31, 2018
(Amounts are in Thousands of Dollars)

	General	Federal, State and Local Grants	Special Taxing Areas
Other Financing Sources (Uses):			
Issuance of Debt	$ -	$ -	$ -
Issuance of Line of Credit	-	-	-
Premium/(Discount)	-	-	-
Payment to Refunded Bond Escrow Agent	-	-	-
Proceeds from Sale of Assets	-	-	-
Transfers In	627,542	-	19,965
Transfers Out	(127,390)	-	(108,258)
Total Other Financing Sources (Uses)	500,152	-	(88,293)
Net Changes in Fund Balance	44,448	42,654	124,438
Fund Balance, Beginning of Year	288,361	(241,402)	1,347,294
Change in Inventory	(482)	-	-
Fund Balance, End of Year	$ 332,327	$ (198,748)	$ 1,471,732

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
$ -	$ -	$ 1,292,700	$ -	$ -	$ -	$ 1,292,700
-	233,627	-	-	-	-	233,627
-	-	110,062	-	-	-	110,062
-	(1,392,431)	-	-	-	-	(1,392,431)
-	-	-	106,131	-	-	106,131
-	70,809	-	142,688	185,440	225,544	1,271,988
(15,639)	(233,627)	(70,809)	(4,188)	-	(709,537)	(1,269,448)
(15,639)	(1,321,622)	1,331,953	244,631	185,440	(483,993)	352,629
5,203	(1,456,897)	1,353,663	1,785	-	(8,540)	106,754
(844,907)	(328,993)	795,067	346,000	-	260,538	1,621,958
-	-	-	-	-	-	(482)
$ (839,704)	$ (1,785,890)	$ 2,148,730	$ 347,785	$ -	$ 251,998	$ 1,728,230

This Page Intentionally Left Blank

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, 2018
(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	$	106,754
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		84,748
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		(26,604)
Revenues in the statement of activities that do not provide current financial resources are not reported as revenues in the funds		(6,670)
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		84,784
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		(1,097,179)
Change in the net position of governmental activities	$	(854,167)

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, 2018
(Amounts are in Thousands of Dollars)

	Original Budget	Final Budget	Actual Amounts	Variance
Revenues:				
Utility Tax	$ 435,700	$ 435,700	$ 432,060	$ (3,640)
Sales Tax	54,800	54,800	56,986	2,186
Transportation Tax	309,500	309,500	307,084	(2,416)
Transaction Tax	422,638	422,638	477,507	54,869
Recreation Tax	268,890	268,890	279,515	10,625
Other Taxes	132,740	132,740	146,030	13,290
State Income Tax	386,714	386,714	392,449	5,735
Federal/State Grants	1,800	1,800	3,444	1,644
Internal Service	280,421	280,421	270,172	(10,249)
Licenses and Permits	131,050	131,050	139,792	8,742
Fines	326,200	326,200	336,900	10,700
Investment Income	8,000	8,000	1,627	(6,373)
Charges for Services	191,240	191,240	193,489	2,249
Miscellaneous	241,694	241,694	104,694	(137,000)
Budgeted Prior Years' Surplus and Reappropriations	37,000	37,000	-	(37,000)
Transfers In	624,090	624,090	627,542	3,452
Total Revenues	3,852,477	3,852,477	3,769,291	(83,186)
Expenditures:				
Current:				
General Government	1,370,690	1,370,690	1,217,183	153,507
Health	32,916	32,916	30,777	2,139
Public Safety	2,176,781	2,176,781	2,223,737	(46,956)
Streets and Sanitation	209,734	209,734	206,815	2,919
Transportation	57,400	57,400	55,121	2,279
Debt Service:				
Principal Retirement	2,250	2,250	2,250	-
Interest and Other Fiscal Charges	2,706	2,706	2,706	-
Total Expenditures	3,852,477	3,852,477	3,738,589	113,888
Revenues (Under) Over Expenditures	$ -	$ -	$ 30,702	$ 30,702

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, 2018
(Amounts are in Thousands of Dollars)

	Original Budget	Final Budget	Actual Amounts	Variance
Revenues:				
Property Taxes	$ 905,514	$ 905,514	$ 870,534	$ (34,980)
Investment Income	-	-	190	190
Other Revenue	103,063	103,063	103,063	-
Transfers In	178,922	178,922	185,440	6,518
Total Revenues	1,187,499	1,187,499	1,159,227	(28,272)
Expenditures:				
Current:				
City Contribution to - Municipal Employees' Annuity and Benefit Fund	344,000	344,000	345,260	(1,260)
City Contribution to - Laborers' and Retirement Board Employees' Annuity and Benefit Fund	48,000	48,000	48,140	(140)
City Contribution to - Policemen's Annuity and Benefit Fund	557,000	557,000	527,454	29,546
City Contribution to - Firemen's Annuity and Benefit Fund	238,499	238,499	238,373	126
Total Expenditures	1,187,499	1,187,499	1,159,227	28,272
Revenues Over Expenditures	$ -	$ -	$ -	$ -

See notes to basic financial statements.

Exhibit 8
CITY OF CHICAGO, ILLINOIS
STATEMENT OF NET POSITION
PROPRIETARY FUNDS
December 31, 2018
(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
ASSETS AND DEFERRED OUTFLOWS						
CURRENT ASSETS:						
Cash and Cash Equivalents	$ 206,922	$ 73,084	$ 62,153	$ 332,057	$ 736	$ 674,952
Investments	264,309	97,690	5,081	12,271	682	380,033
Accounts Receivable (Net of Allowances)	193,388	109,429	18,651	92,960	4	414,432
Interest Receivable	2,222	-	145	671	4	3,042
Due from Other Funds	38,708	20,075	2,022	39,929	-	100,734
Inventories	20,453	789	-	-	-	21,242
Cash and Cash Equivalents - Restricted	127,032	173,559	104,883	786,847	-	1,192,321
Investments - Restricted	70,642	14,249	-	-	-	84,891
Interest Receivable - Restricted	256	2,189	-	-	-	2,445
Other Assets - Restricted	-	-	-	1,923	-	1,923
TOTAL CURRENT ASSETS	923,932	491,064	192,935	1,266,658	1,426	2,876,015
NONCURRENT ASSETS:						
Cash and Cash Equivalents - Restricted	-	-	183,311	2,843,352	-	3,026,663
Investments - Restricted	-	156,439	296,144	972,984	-	1,425,567
Interest Receivable - Restricted	-	-	1,706	9,310	-	11,016
Other Assets - Restricted	-	-	3,306	37,817	-	41,123
Due from Other Governments - Restricted	-	-	32,416	27,434	-	59,850
Other Assets	2,797	1,209	573	5,338	9,504	19,421
Property, Plant, and Equipment:						
Land	6,858	560	116,250	892,248	12,609	1,028,525
Structures, Equipment and Improvements	5,536,536	3,304,057	1,703,964	10,229,588	490,818	21,264,963
Accumulated Depreciation	(1,215,511)	(661,173)	(719,107)	(3,901,958)	(267,112)	(6,764,861)
Construction Work in Progress	427,987	91,925	95,571	1,306,552	-	1,922,035
Total Property, Plant and Equipment	4,755,870	2,735,369	1,196,678	8,526,430	236,315	17,450,662
TOTAL NONCURRENT ASSETS:	4,758,667	2,893,017	1,714,134	12,422,665	245,819	22,034,302
TOTAL ASSETS	5,682,599	3,384,081	1,907,069	13,689,323	247,245	24,910,317
DEFERRED OUTFLOWS	241,755	75,820	134,202	450,827	-	902,604
TOTAL ASSETS AND DEFERRED OUTFLOWS	$ 5,924,354	$ 3,459,901	$ 2,041,271	$ 14,140,150	$ 247,245	$ 25,812,921

See notes to basic financial statements.

	Business-type Activities - Enterprise Funds					
	Major Funds					
	Water	Sewer	Chicago-Midway International Airport	Chicago-O'Hare International Airport	Chicago Skyway	Total
LIABILITIES						
CURRENT LIABILITIES:						
Voucher Warrants Payable	$ 23,600	$ 3,291	$ 23,388	$ 85,097	$ -	$ 135,376
Due to Other Funds	9,949	9,096	10,744	2,226	15	32,030
Accrued and Other Liabilities	231,527	41,227	1,542	14,668	-	288,964
Unearned Revenue	15,940	12,654	16,676	283,531	-	328,801
Current Liabilities Payable from Restricted Assets	197,930	187,808	104,441	786,846	-	1,277,025
TOTAL CURRENT LIABILITIES	478,946	254,076	156,791	1,172,368	15	2,062,196
NONCURRENT LIABILITIES:						
Revenue Bonds and Commercial Paper Payable	2,550,388	2,005,573	1,782,568	10,379,262	-	16,717,791
Line of Credit and TIFIA Loan Payable	-	-	-	258,150	-	258,150
Net Pension Liability	1,172,444	453,667	329,702	1,400,398	-	3,356,211
Derivative Instrument Liability	-	-	20,239	-	-	20,239
Other	1,577	-	1,954	-	-	3,531
TOTAL NONCURRENT LIABILITIES	3,724,409	2,459,240	2,134,463	12,037,810	-	20,355,922
TOTAL LIABILITIES	4,203,355	2,713,316	2,291,254	13,210,178	15	22,418,118
DEFERRED INFLOWS	435,097	161,529	82,841	381,103	1,571,212	2,631,782
NET POSITION:						
Net Investment in Capital Assets	2,163,158	827,773	(172,197)	1,243,830	236,315	4,298,879
Restricted Net Position:						
Debt Service	-	-	5,381	10,519	-	15,900
Capital Projects	256	115,576	49,213	92,770	-	257,815
Passenger Facility Charges	-	-	3,854	227,767	-	231,621
Contractual Use Agreement	-	-	35,978	154,889	-	190,867
Air Development Fund	-	-	-	137,216	-	137,216
Customer Facility Charge	-	-	13,798	28,469	-	42,267
Other	-	-	12,461	48,393	-	60,854
Unrestricted Net (Deficit)	(877,512)	(358,293)	(281,312)	(1,394,984)	(1,560,297)	(4,472,398)
TOTAL NET POSITION/(DEFICIT)	$ 1,285,902	$ 585,056	$ (332,824)	$ 548,869	$ (1,323,982)	$ 763,021

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, 2018
(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
Operating Revenues:						
Charges for Services - Net of Provision for Doubtful Accounts of $8,205 for Water and $12,611 for Sewer	$ 746,546	$ 368,211	$ 106,125	$ 709,933	$ -	$ 1,930,815
Rent	-	-	100,408	351,980	-	452,388
Other	27,414	1,492	-	-	-	28,906
Total Operating Revenues	773,960	369,703	206,533	1,061,913	-	2,412,109
Operating Expenses:						
Personnel Services	134,888	13,472	51,408	222,550	-	422,318
Contractual Services	57,315	3,664	24,144	111,642	-	196,765
Repairs and Maintenance	2,249	68,563	47,326	115,008	-	233,146
Commodities and Materials	23,844	-	-	-	-	23,844
Depreciation and Amortization	74,636	48,504	51,383	259,467	8,140	442,130
Loss on Capital Asset Disposal	-	-	-	22,218	-	22,218
General Fund Reimbursements	88,286	51,188	-	-	-	139,474
Pension Expense	85,451	18,938	42,843	145,920	-	293,152
Other	19,323	-	15,689	115,146	-	150,158
Total Operating Expenses	485,992	204,329	232,793	991,951	8,140	1,923,205
Operating Income (Loss)	287,968	165,374	(26,260)	69,962	(8,140)	488,904
Nonoperating Revenues (Expenses):						
Investment Income (Loss)	5,072	2,436	6,408	36,707	5	50,628
Interest Expense	(91,272)	(77,619)	(59,598)	(305,798)	-	(534,287)
Passenger Facility Charges	-	-	39,469	163,221	-	202,690
Customer Facility Charges	-	-	7,502	38,837	-	46,339
Noise Mitigation Costs	-	-	(648)	(6,097)	-	(6,745)
Cost of Issuance	-	-	(555)	(14,192)	-	(14,747)
Other	2,058	5,010	1,083	19,267	18,535	45,953
Total Nonoperating Revenues (Expenses)	(84,142)	(70,173)	(6,339)	(68,055)	18,540	(210,169)
Transfers Out	(2,420)	(120)	-	-	-	(2,540)
Capital Grants	-	2,274	6,776	131,020	-	140,070
Net Income (Loss)	201,406	97,355	(25,823)	132,927	10,400	416,265
Net Position (Deficit) - Beginning of Year	1,084,496	487,701	(307,001)	415,942	(1,334,382)	346,756
Net Position (Deficit) - End of Year	$ 1,285,902	$ 585,056	$ (332,824)	$ 548,869	$ (1,323,982)	$ 763,021

See notes to basic financial statements.

Exhibit 10
CITY OF CHICAGO, ILLINOIS
STATEMENT OF CASH FLOWS
PROPRIETARY FUNDS
Year Ended December 31, 2018
(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
Cash Flows from Operating Activities:						
Received from Customers	$ 768,547	$ 364,412	$ 218,913	$ 1,119,995	$ -	$ 2,471,867
Payments to Vendors	(97,400)	(31,185)	(99,379)	(314,320)	-	(542,284)
Payments to Employees	(134,874)	(51,640)	(45,367)	(202,667)	-	(434,548)
Transactions with Other City Funds	(124,992)	(61,740)	(5,119)	(82,338)	-	(274,189)
Cash Flows Provided By Operating Activities	411,281	219,847	69,048	520,670	-	1,220,846
Cash Flows from Capital and Related Financing Activities:						
Proceeds from Issuance of Bonds/Commercial Paper/IEPA Loans/TIFIA Loans/LOC	108,279	91,664	45,670	2,173,861	-	2,419,474
Acquisition and Construction of Capital Assets	(349,318)	(234,702)	(55,685)	(753,691)	-	(1,393,396)
Capital Grant Receipts	-	207	4,067	118,125	-	122,399
Bond Issuance Costs	-	-	(3,332)	(20,114)	-	(23,446)
Payment to Commercial Paper Note/LOC	-	-	-	(112,297)	-	(112,297)
Payment to Refund Bonds	-	-	(62,720)	(27,370)	-	(90,090)
Principal Paid on Debt	(102,197)	(57,417)	(27,930)	(298,185)	-	(485,729)
Interest Paid	(115,575)	(89,707)	(82,596)	(413,215)	-	(701,093)
Passenger and Customer Facility Charges	-	-	46,732	195,961	-	242,693
Concessionaire Funds	-	-	-	-	53	53
Cash Flows (Used in) Provided By Capital and Related Financing Activities	(458,811)	(289,955)	(135,794)	863,075	53	(21,432)
Cash Flows from Non Capital Financing Activities:						
Noise Mitigation Program	-	-	(648)	(6,097)	-	(6,745)
Proceeds from Settlement Agreement	-	4,931	171	643	-	5,745
Cash Flows Provided by (used in) Non Capital Financing Activities	-	4,931	(477)	(5,454)	-	(1,000)
Cash Flows from Investing Activities:						
Purchases (Sale) of Investments, Net	108,547	139,815	146,856	648,567	93	1,043,878
Investment Income	12,013	9,007	10,321	51,976	5	83,322
Cash Flows Provided By Investing Activities	120,560	148,822	157,177	700,543	98	1,127,200
Net Increase in Cash and Cash Equivalents	73,030	83,645	89,954	2,078,834	151	2,325,614
Cash and Cash Equivalents, Beginning of Year	260,924	162,998	260,393	1,883,422	585	2,568,322
Cash and Cash Equivalents, End of Year	$ 333,954	$ 246,643	$ 350,347	$ 3,962,256	$ 736	$ 4,893,936

See notes to basic financial statements.

Exhibit 10 - Concluded
CITY OF CHICAGO, ILLINOIS
STATEMENT OF CASH FLOWS
PROPRIETARY FUNDS
Year Ended December 31, 2018
(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
Reconciliation of Operating Income to Cash Flows from Operating Activities:						
Operating Income (Loss)	$ 287,968	$ 165,374	$ (26,260)	$ 69,962	$ (8,140)	$ 488,904
Adjustments to Reconcile:						
Depreciation, Amortization and Loss on Capital Asset Disposals	74,636	48,504	51,383	281,685	8,140	464,348
Pension Expense Other than Contribution	53,316	6,191	31,353	99,229	-	190,089
Provision for Uncollectible Accounts	8,205	12,611	8	-	-	20,824
Change in Assets and Liabilities:						
(Increase) Decrease in Receivables	(12,430)	(16,885)	2,220	(8,435)	-	(35,530)
(Increase) Decrease in Due From Other Funds	(2,037)	2,163	(439)	(672)	-	(985)
(Decrease) Increase in Voucher Warrants Payable and Due to Other Funds	(8,153)	(404)	692	11,306	-	3,441
Increase in Unearned Revenue and Other Liabilities	8,162	2,107	10,143	66,517	-	86,929
Increase (Decrease) in Inventories and Other Assets	1,614	186	(52)	1,078	-	2,826
Cash Flows from Operating Activities	$ 411,281	$ 219,847	$ 69,048	$ 520,670	$ -	$ 1,220,846
Supplemental Disclosure of Noncash Items:						
Capital asset additions in 2018 with outstanding accounts payable, accrued, or other liabilities	$ 75,782	$ 82,446	$ 30,041	$ 236,181	$ -	$ 424,450
The fair value adjustments (loss) to investments for 2018	$ 15,125	$ 7,805	$ (3,809)	$ (13,747)	$ -	$ 5,374

See notes to basic financial statements.

Exhibit 11
CITY OF CHICAGO, ILLINOIS
STATEMENT OF FIDUCIARY NET POSITION
FIDUCIARY FUNDS
December 31, 2018
(Amounts are in Thousands of Dollars)

	Pension Trust	Agency
ASSETS		
Cash and Cash Equivalents	$ 159,516	$ 182,187
Investments	-	167,863
Investments, at Fair Value		
Bonds and U.S. Government Obligations	1,839,944	-
Stocks	3,664,384	-
Mortgages and Real Estate	633,689	-
Other	1,497,249	-
Cash and Investments with Escrow Agent	-	11,401
Property Tax Receivable	-	112,594
Accounts Receivable, Net	1,239,948	11,975
Due From City	176,042	-
Property, Plant, Equipment and other	323	-
Invested Securities Lending Collateral	358,440	-
Total Assets	$ 9,569,535	$ 486,020
LIABILITIES		
Voucher Warrants Payable	$ 261,095	$ 55,243
Accrued and Other Liabilities	-	430,777
Securities Lending Collateral	358,440	-
Total Liabilities	$ 619,535	$ 486,020
Deferred Inflows	$ 258	$ -
Total Liabilities and Deferred Inflows	$ 619,793	$ 486,020
NET POSITION		
Restricted for Pension Benefits	8,949,742	
Total Net Position	$ 8,949,742	

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, 2018
(Amounts are in Thousands of Dollars)

	Total
ADDITIONS	
Contributions:	
Employees	$ 309,318
City	1,235,137
Total Contributions	1,544,455
Investment Income:	
Net Depreciation in	
Fair Value of Investments	(638,215)
Interest, Dividends and Other	202,321
Investment Expense	(40,668)
Net Investment Income	(476,562)
Securities Lending Transactions:	
Securities Lending Income	8,835
Securities Lending Expense	(6,177)
Net Securities Lending Transactions	2,658
Total Additions	1,070,551
DEDUCTIONS	
Benefits and Refunds of Deductions	2,172,025
Administrative and General	17,923
Total Deductions	2,189,948
Net Increase in Net Position	(1,119,397)
Net Position:	
Beginning of Year	10,069,139
End of Year	$ 8,949,742

See notes to basic financial statements.

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, 2018, the City adopted the following GASB Statements:

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 Other Postemployment Benefits (OPEB). GASB 75 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. The City Adopted GASB 75 for the year ended December 31, 2018. GASB 75 required governments providing defined Other Postemployment Benefits to recognize their long-term obligation for Other Postemployment Benefits as a liability, and to more comprehensively and comparably measure the annual costs of Other Postemployment Benefits. The Statement also enhanced accountability and transparency through revised and new note disclosures and required supplementary information (see RSI and Notes 11 and 18). Beginning Net Position was restated as a result of implementation of this standard (see Note 18).

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). Adoption of GASB 85 had no impact to the City's Financial Statements.

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. Adoption of GASB 86 had no impact to the City as historical defeasances of debt have not been from existing resources.

Other accounting standards that the City is currently reviewing for applicability and potential impact on the financial statements include:

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. 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.

GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period* – ("GASB 89") will enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period. GASB 89 requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. GASB 89 will be effective for the City beginning with its year ending December 31, 2020.

GASB Statement No. 90, *Majority Equity Interests*, an amendment of GASB Statements No. 14 and No. 61 ("GASB 90") aims to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and the relevance of financial statement information for certain component units. GASB 90 will be effective for the City beginning with its year ending December 31, 2019.

GASB Statement No. 91, *Conduit Debt Obligations* – ("GASB 91") provides a single method of reporting conduit debt obligations by issuers and aims to eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. GASB 91 will be effective for the City beginning with its year ending December 31, 2021.

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:

<u>The Municipal Employees' Annuity and Benefit Fund of Chicago</u> is governed by a five-member board: three members are elected by plan participants and two are members ex-officio.

<u>The Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago</u> 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.

<u>The Policemen's Annuity and Benefit Fund of Chicago</u> is governed by an eight-member board: four members are elected by plan participants and four are appointed by the Mayor.

<u>The Firemen's Annuity and Benefit Fund of Chicago</u> 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 "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.

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.

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 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.

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 191 gates as of December 31, 2018. Three domestic terminal buildings, having a total of 171 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 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 (committed, assigned or unassigned) resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources, as they are needed. When an expenditure is incurred for purposes for which amounts in any of the unrestricted fund balance classifications could be used, it is the policy of the City that committed amounts would be reduced first, followed by assigned amounts and then unassigned amounts.

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. 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 92 days at December 31, 2018. The cash collateral is invested in tri-party repurchase agreements and bank deposits which had a weighted average maturity of 26 days at December 31, 2018.

Laborers' Employees' - The average term of securities loaned was 90 days at December 31, 2018. Cash collateral may be invested in a short-term investment pool, which had a weighted average maturity of 30 days at December 31, 2018.

Policemen's Employees' - The average term of the Fund's loan was approximately 1 day as of December 31, 2018. Cash collateral was reinvested in indemnified repurchase agreements which had an interest sensitivity of 1 day at December 31, 2018.

Firemen's Employees' - The average term of securities loaned was 51 days in 2018. Cash collateral may be invested in a short-term investment pool, which had a weighted average maturity of 27 days at December 31, 2018.

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 $1,252.8 million, of which $107.2 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:

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. Deferred Outflows for OPEB represent the difference between expected and actual non-investment experience and assumption 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 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. Deferred inflows for OPEB represent the difference between expected and actual non-investment experience and assumption changes.

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 8, 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, 2018, the unrestricted net position represents a deficit.

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 $1,826.2 million are as follows (dollars in thousands):

Deferred inflows - property tax	$ 1,591,921
Deferred inflows - grants	223,409
Deferred inflows - charges for services	2,925
Deferred inflows - utility tax	7,957
Net adjustment to increase fund balance - total governmental funds - to arrive at net position - governmental activities	$ 1,826,212

ii) Another element of that reconciliation explains that "Certain liabilities, deferred inflows 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 $42,486.1 million are as follows (dollars in thousands):

Long-term liabilities:	
Total bonds, notes and certificates payable	$ (10,995,871)
Pension benefits	(26,761,592)
Other postemployment benefits	(684,632)
Pollution remediation	(44,415)
Claims and judgments	(1,032,385)
Total Long-term liabilities	(39,518,895)
Accounts payable - infrastructure retainage	(2,417)
Bonds, notes and other obligations payable current	77,037
Deferred outflows - unamortized loss on refunding	148,573
Deferred outflows - pension costs	2,979,471
Deferred outflows - other postemployment benefits costs	20,516
Deferred inflows - pension	(5,301,864)
Deferred inflows - other postemployment benefits	(47,545)
Accrued and other liabilities - compensated absences	(81,807)
Accrued and other liabilities - pension payable to pension funds	(759,142)
Net adjustment to reduce fund balance - total governmental funds - to arrive at net position - governmental activities	$ (42,486,073)

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 $84.7 million are as follows (dollars in thousands):

Capitalized asset expenditures	$	507,711
Depreciation expense		(422,963)
Net adjustment to increase net changes in fund balances - total governmental funds - to arrive at changes in net position - governmental activities	$	84,748

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 increase of $84.8 million are as follows (dollars in thousands):

Proceeds of debt	$	(1,292,700)
Proceeds from line of credit		(233,627)
(Premium) / Discount		(110,062)
Payment to refunded bond escrow agent		1,392,431
Principal retirement		335,270
Interest expense		(6,528)
Net adjustment to reduce net changes in fund balances - total governmental funds - to arrive at changes in net position - governmental activities	$	84,784

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 $1,097.2 million are as follows (dollars in thousands):

Claims and judgments	$	(19,629)
Pension costs		(1,105,648)
Other post employment benefit liabilities		34,660
Pollution remediation		(9,371)
Vacation		3,291
Inventory		(482)
Net adjustment to reduce net changes in fund balances - total governmental funds - to arrive at changes in net position - governmental activities	$	(1,097,179)

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) In October, 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.

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, 2018 is as follows (dollars in thousands):

	General Fund
Revenues, GAAP Basis	$ 3,141,749
Add:	
Transfers In	627,542
Revenues, Budgetary Basis	$ 3,769,291
Expenditures, GAAP Basis	$ 3,597,453
Add:	
Transfers Out	127,390
Encumbered in 2018	11,000
Deduct:	
Payments on Prior Years' Encumbrances	4,004
Provision for Doubtful Accounts and Other	(1,258)
Expenditures, Budgetary Basis	$ 3,738,589

c) **Individual Fund Deficits** include the Chicago Skyway Fund, an Enterprise Fund, which has a deficit fund balance of $1,324.0 million which management anticipates will be funded through recognition of deferred inflows. Midway International Airport Fund has a deficit fund balance of $332.8 million which will be funded through future revenues. Federal State and Local Grants, a governmental fund, has a deficit fund balance of $198.7 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 $839.7 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 $1,785.9 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.

4) **Restricted and Unrestricted Cash, Cash Equivalents and Investments**

a) **Investments** As of December 31, 2018, the City had the following Investments (dollars in thousands):

Investment Type	Maturities (in Years)				
	Less Than 1	1-5	6-10	More Than 10	Total
City Funds					
U.S. Treasuries	$ 109,621	$ -	$ -	$ -	$ 109,621
U.S. Agencies*	544,183	520,946	9,304	-	1,074,433
Commercial Paper	1,861,993	-	-	-	1,861,993
Corporate Bonds	146,905	524,963	521,925	211,253	1,405,046
Corporate Equities	1,455	-	-	-	1,455
Certificates of Deposit and Other Short-term	3,901,045	-	-	-	3,901,045
Municipal Bonds	144,054	315,245	248,852	223,282	931,433
Supra National Bonds	-	49,981	-	-	49,981
State and Local Government Series	105,695	46,161	-	-	151,856
Asset Backed Securities	47,426	42,277	32,147	64,244	186,094
Total City Funds	$ 6,862,377	$ 1,499,573	$ 812,228	$ 498,779	$ 9,672,957

*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.

Investment Type	Less Than 1	1-5	6-10	More Than 10	Total
Pension Trust Funds					
U.S. and Foreign Government Agencies	$ 33,530	$ 195,645	$ 132,718	$ 331,529	$ 693,422
Corporate Bonds	467,312	419,264	234,635	167,999	1,289,210
Corporate Equities	3,966,132	-	-	-	3,966,132
Pooled Funds	125,477	20,936	-	-	146,413
Real Estate	620,386	-	-	-	620,386
Securities Received from Securities Lending	358,440	-	-	-	358,440
Venture Capital	564,521	-	-	-	564,521
Certificates of Deposit and Other Short-term	206,658	-	-	-	206,658
Derivatives	22,231	-	-	-	22,231
Other	93,878	132,317	59,115	-	285,310
Total Pension Trust Funds	$ 6,458,565	$ 768,162	$ 426,468	$ 499,528	$ 8,152,723
Total	$ 13,320,942	$ 2,267,735	$ 1,238,696	$ 998,307	$17,825,680

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. Investments that are valued through other observable inputs (Level 2), are valued using methods that include, but are not limited to, model processes, benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing.

The City's investments measured at fair value as of December 31, 2018 are as follows (dollars in thousands):

Investments by Fair Value Level	Level 1	Level 2	Level 3
U.S. Treasuries	$ -	$ 14,934	$ -
U.S. Agencies	-	857,788	-
Corporate Bonds	-	1,377,786	-
Municipal Bonds	-	886,342	-
Supra National Bonds	-	49,981	-
State and Local Government Series	-	151,856	-
Asset Backed Securities	-	150,036	-
Total Investments at Fair Value	$ -	$ 3,488,723	$ -

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 $6,184.2 million.

Pension Trust Funds' Investments measured at fair value as of December 31, 2018 are as follows (Dollars in thousands):

Summary	Total	Level 1	Level 2	Level 3
U.S.and Foreign Government Agencies ...	$ 693,422	$ -	$ 689,238	$ 4,184
Corporate Bonds	915,444	-	915,444	-
Corporate Equities	3,509,945	3,508,579	933	433
Pooled Funds	124,050	43,047	81,003	-
Real Estate	13,684	13,684	-	-
Securities Received from Securities Lending	358,440	-	358,440	-
Certificates of Deposit and Other Short-term	167,622	21,610	145,917	95
Derivatives	22,231	37	22,194	-
Other	192,789	-	192,789	-
Subtotal	5,997,627	3,586,957	2,405,958	4,712

Pension Trust Funds' Investments measured at net asset value:		Unfunded Commitments	Redemption Frequency	Redemption Notice
Corporate Bonds	$ 373,766	$ 6,064	daily	5 days
Corporate Equities	456,187	-		
Pooled Funds	22,363	-		
Real Estate	606,702	44,475	as needed, N/A, illiquid	45/90 days, open end, not eligible, N/A
Venture Capital	564,521	70,460	as needed, N/A, not eligible, illiquid	90 days, not eligible, N/A
Certificates of Deposit and Other Short-term	39,036	-		
Other *...............................	92,521	16,607	illiquid	N/A
Subtotal	2,155,096			
Pension Trust Funds' Investments Total...	$ 8,152,723			

* Other includes Fixed Assets & Hedge Fund of Funds.

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* – The interest rate risk, or market risk, refers to the chance that investments in bonds – also known as fixed-income securities – will suffer as the result of unexpected interest rate changes. However, the City mitigates interest rate risks by diversifying portfolios to include a multitude of different bonds that have varying maturation schedules.

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;

(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 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)Interests 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	$ 4,239,208	Aaa/AAA	$ 193,067
Aa/AA	2,149,538	Aa/AA	127,868
A/A	906,791	A/A	192,475
Baa/BBB	141,510	Baa/BBB	347,348
Ba/BB	-	Ba/BB	186,908
B/B	-	B/B	116,451
Caa/CCC	-	Caa/CCC	21,913
Ca	-	Ca	394
C/CC	-	CC/C	605
D/D	-	D/D	294
P1/A1	2,005,197	Not Rated	364,707
P2/A2	-	Other	334,729
MIG1/SP-1+	-		
MIG2/SP-1+	-		
Not Rated*	230,713		
Total Funds	$ 9,672,957		$ 1,886,759

* 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 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 deposits in 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 deposit.

The collateral required to secure City funds must be held in third party- 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.

The bank balance of cash and certificates of deposit with the City's various municipal depositories was $1,035.1 million. 97.7 percent of the bank balance was either insured or collateralized with securities held by City agents in the City's name. $23.7 million was uncollateralized at December 31, 2018, and thus was subject to custodial credit risk.

iv) Custodial Credit Risk - Investments: For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty to a transaction, the City will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. The City limits custodial credit risk exposure because investment securities are registered in the City's name and held by the City's third-party custodians.

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):

Foreign Currency Risk	
Argentine peso	$ 429
Australian dollar	57,065
Brazilian real	46,828
British pound	201,732
Canadian dollar	58,321
Chilean peso	1,533
Chinese yuan	(144)
Colombian peso	2,999
Czech Republic koruna	1,996
Danish krone	27,278
Egyptian pound	529
European euro	362,327
HK Chinese Yuan renminbi	869
Hong Kong dollar	149,190
Hungarian forint	4,433
Indian rupee	44,548
Indonesian rupiah	22,412
Japanese yen	271,109
Kenyan shilling	301
Malaysian ringgit	7,818
Mexican peso	15,550
New Israeli shekel	11,389
New Taiwan dollar	35,092
New Zealand dollar	(2,381)
Norwegian krone	16,743
Pakistan rupee	61
Peruvian Nuevo Sol	214
Philippines peso	5,620
Polish zloty	2,429
Qatari riyal	1,168
Russian ruble	26
Singapore dollar	12,877
South African rand	23,473
South Korean won	44,672
Swedish krona	41,923
Swiss franc	64,003
Taiwan dollar	6,930
Thailand baht	15,211
Turkish lira	1,883
United Arab Emirates dirham	639
Vietnamese Dong	190
Total Pension Trust Funds	$ 1,559,285

vi) The following schedule summarizes the cash and investments reported in the basic financial statements (dollars in thousands):

Per Note 4:	
Investments - City	$ 9,672,957
Investments - Pension Trust Funds	8,152,723
	$ 17,825,680
Per Financial Statements:	
Restricted Investments	$ 2,095,342
Unrestricted Investments	1,538,260
Investments with Fiduciary Funds	7,803,129
Investments with Escrow Agent	502,742
Invested Securities Lending Collateral	358,440
Investments Included as Cash and Cash Equivalents on the Statement of Net Position	5,527,767
	$ 17,825,680

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 multiple 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.

6) **Interfund Balances and Transfers**

a) The following balances at December 31, 2018 represent due from/to balances among all funds (dollars in thousands):

Fund Type/Fund	**Due From**	**Due To**
Governmental Funds:		
General	$ 220,143	$ 163,969
Federal, State and Local Grants	25,358	263,367
Special Taxing Areas	218,608	1,901
Bond, Note Redemption and Interest *	412	2,090,686
STSC Debt Service *	2,090,686	-
Community Development and Improvement Projects	15,428	44,092
Pension	64,116	176,042
Nonmajor Governmental Funds	105,540	244,980
Total Governmental Funds	2,740,291	2,985,037
Enterprise Funds:		
Water	38,708	9,949
Sewer	20,075	9,096
Chicago Midway International Airport	2,022	10,744
Chicago-O'Hare International Airport	39,929	2,226
Chicago Skyway		15
Total Enterprise Funds	100,734	32,030
Fiduciary activities:		
Pension Trust	176,042	-
Total Fiduciary activities	176,042	-
Total	$ 3,017,067	$ 3,017,067

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.

b) The following balances at December 31, 2018 represent interfund transfers among all funds (dollars in thousands):

Fund Type/Fund	Transfer In	Transfer Out
Governmental Funds:		
General	$ 627,542	$ 127,390
Special Taxing Areas	19,965	108,258
Service Concession and Reserve	-	15,639
Bond, Note Redemption and Interest	70,809	233,627
STSC Debt Service *	-	70,809
Community Development and Improvement Projects	142,688	4,188
Pension	185,440	-
Nonmajor Governmental Funds *	225,544	709,537
Total Governmental Funds	1,271,988	1,269,448
Business-type activities:		
Water	-	2,420
Sewer	-	120
Total Business-type activities	-	2,540
Total	$ 1,271,988	$ 1,271,988

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.

7) **Capital Assets**

a) **Capital Assets** activity for the year ended December 31, 2018 was as follows (dollars in thousands):

	Balance January 1, 2018	Additions and Transfers	Disposals and Transfers	Balance December 31, 2018
Governmental activities:				
Capital assets, not being depreciated:				
Land	$ 1,399,778	$ 9,810	$ (42)	$ 1,409,546
Works of Art and Historical Collections	47,024	1,123	-	48,147
Construction in Progress	694,049	409,227	(466,078)	637,198
Total capital assets, not being depreciated	2,140,851	420,160	(466,120)	2,094,891
Capital assets, being depreciated:				
Buildings and Other Improvements	2,681,953	37,056	(26,033)	2,692,976
Machinery and Equipment	1,602,914	72,785	(17,833)	1,657,866
Infrastructure	9,576,727	427,314	(3,422)	10,000,619
Total capital assets, being depreciated	13,861,594	537,155	(47,288)	14,351,461
Less accumulated depreciation for:				
Buildings and Other Improvements	1,147,361	69,276	(16,410)	1,200,227
Machinery and Equipment	1,317,943	56,495	(15,650)	1,358,788
Infrastructure	4,791,551	297,192	-	5,088,743
Total accumulated depreciation	7,256,855	422,963	(32,060)	7,647,758
Total capital assets, being depreciated, net	6,604,739	114,192	(15,228)	6,703,703
Total governmental activities	$ 8,745,590	$ 534,352	$ (481,348)	$ 8,798,594
Business-type activities:				
Capital assets, not being depreciated:				
Land	$ 1,028,750	$ -	$ (225)	$ 1,028,525
Construction in Progress	1,873,687	1,222,109	(1,173,761)	1,922,035
Total capital assets, not being depreciated	2,902,437	1,222,109	(1,173,986)	2,950,560
Capital assets, being depreciated:				
Buildings and Other Improvements	19,114,986	1,446,979	(104,392)	20,457,573
Machinery and Equipment	780,524	31,818	(4,952)	807,390
Total capital assets, being depreciated	19,895,510	1,478,797	(109,344)	21,264,963
Less accumulated depreciation for:				
Buildings and Other Improvements	5,940,052	416,834	(33,278)	6,323,608
Machinery and Equipment	420,373	22,132	(1,252)	441,253
Total accumulated depreciation	6,360,425	438,966	(34,530)	6,764,861
Total capital assets, being depreciated, net	13,535,085	1,039,831	(74,814)	14,500,102
Total business-type activities	$ 16,437,522	$ 2,261,940	$ (1,248,800)	$ 17,450,662
Total Capital Assets	$ 25,183,112	$ 2,796,292	$ (1,730,148)	$ 26,249,256

b) **Depreciation expense** was charged to functions/programs of the City as follows (dollars in thousands):

Governmental activities:		
General Government	$	27,788
Public Safety		52,895
Streets and Sanitation		17,525
Transportation		306,230
Health		986
Cultural and Recreational		17,539
Total Depreciation Expense - Governmental activities	$	422,963
Business-type activities:		
Water	$	72,991
Sewer		47,096
Chicago Midway International Airport		51,383
Chicago-O'Hare International Airport		259,467
Chicago Skyway		8,029
Total Depreciation Expense - Business-type activities	$	438,966

8) **Leases**

a) **Operating Leases**

The City leases building and office facilities under noncancelable operating leases. Total costs for such leases were approximately $16.9 million for the year ended December 31, 2018.

The future minimum lease payments for these leases are as follows (dollars in thousands):

2019	$	17,683
2020		5,906
2021		5,408
2022		4,801
2023		4,307
2024 - 2028		4,769
2029 - 2033		1,530
2034 - 2038		393
2039 - 2043		87
Total Future Rental Expense	$	44,884

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, 2018 (dollars in thousands):

2019	$ 328,780
2020	324,340
2021	311,735
2022	311,678
2023	303,700
2024 - 2028	1,455,215
2029 - 2033	1,433,481
2034 - 2038	299,978
2039 - 2043	295,878
2044 - 2048	270,539
2049 - 2053	130,361
Thereafter	509
Total Minimum Future Rental Income	$ 5,466,194

Contingent rentals that may be received under certain leases based on the tenants' revenues or fuel consumption 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 $515.3 million, including contingent rentals of $66.2 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, 2018 (dollars in thousands):

2019	$ 73,130
2020	72,777
2021	72,600
2022	72,600
2023	70,147
2024 - 2028	305,744
2029 - 2033	103,896
2034 - 2038	2,503
2039 - 2043	2,169
Total Minimum Future Rental Income	$ 775,566

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 $118.9 million, including contingent rentals of $46.2 million.

9) **Short-term Debt**

Line of Credit At December 31, 2018, there was $2.0 million outstanding on a revolving line of credit for O'Hare International Airport. The line of credit has been supported by an underlying letter of credit which will expire on December 12, 2019. Since the expiration of the letter of credit will be within one year from the date of the financial statements, the outstanding amount at December 31, 2018 has been reclassified from long-term debt to short-term debt.

2018	Balance January 31	Additions	Reductions	Balance December 31
Revolving Line of Credit	$ 12,098	$ -	$ (10,058)	$ 2,040

10) **Long-term Obligations**

a) **Long-term Debt** activity for the year ended December 31, 2018 was as follows (in thousands):

	Balance January 1, 2018	Additions	Reductions	Balance December 31, 2018	Amounts Due within One Year
Governmental activities:					
Bonds and notes payable:					
General obligation and other debt	$ 9,609,424	$ -	$ 1,635,272	$ 7,974,152	$ 107,863
Line of Credit (LOC)	77,203	233,627	77,203	233,627	-
Total General Obligation Debt, other debt and LOC	9,686,627	233,627	1,712,475	8,207,779	107,863
Tax increment	27,925	-	7,980	19,945	3,750
Revenue	254,224	-	4,295	249,929	4,515
STSC	743,735	1,292,700	-	2,036,435	-
	10,712,511	1,526,327	1,724,750	10,514,088	116,128
Add unamortized premium/(discount)	88,675	110,062	40,439	158,298	-
Add accretion of capital appreciation bonds	315,863	29,175	21,553	323,485	22,293
Total bonds, notes and certificates payable	11,117,049	1,665,564	1,786,742	10,995,871	138,421
Other liabilities:					
Net pension liability	25,058,993	1,702,599	-	26,761,592	-
Other postemployment benefits obligation*	746,321	-	61,689	684,632	-
Pollution remediation	35,044	9,371	-	44,415	-
Claims and judgments	1,012,756	220,434	200,805	1,032,385	125,697
Total other liabilities	26,853,114	1,932,404	262,494	28,523,024	125,697
Total governmental activities	$ 37,970,163	$ 3,597,968	$ 2,049,236	$ 39,518,895	$ 264,118
Business-type activities:					
Revenue bonds and notes payable:					
Water	$ 2,401,005	$ 148,305	$ 91,969	$ 2,457,341	$ 97,009
Sewer	1,861,381	89,597	57,417	1,893,561	62,346
Chicago-O'Hare International Airport**	8,633,782	2,249,980	565,782	10,317,980	291,035
Chicago Midway International Airport	1,755,835	45,670	88,020	1,713,485	36,480
	14,652,003	2,533,552	803,188	16,382,367	486,870
Add unamortized premium/(discount)	1,040,375	53,981	87,558	1,006,798	-
Add accretion of capital appreciation bonds	82,509	6,891	10,584	78,816	5,170
Net pension liability	2,984,331	371,880	-	3,356,211	-
Total business-type activities	$ 18,759,218	$ 2,966,304	$ 901,330	$ 20,824,192	$ 492,040
Total long-term obligations	$ 56,729,381	$ 6,564,272	$ 2,950,566	$ 60,343,087	$ 756,158

* Due to the implementation of GASB75, the beginning balance related to Other Postemployment Benefits Obligation liability has been restated (see Note 18).

** Chicago-O'Hare International Airport Line of Credit is no longer included due to reclassification to short-term debt.

The Pension obligation liability will be liquidated through a Special Revenue Fund (Pension Fund) as provided by tax levy and other operating revenues. The Other postemployment benefit obligation liability will be liquidated with resources from the General Fund.

b) **Issuance of New Debt**

i) General Obligation Line of Credit

During 2018, the City drew $233.6 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, 2018 the outstanding balance is $233.6 million and the Line of Credit matures on May 31, 2020.

ii) 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 $94.5 million were made in 2018. As of December 31, 2018, the outstanding TIFIA loan amount is $258.2 million that includes accrued interest of $6.9 million.

O'Hare issued $138.8 million of Series 2016 Commercial Paper Notes in 2018. The proceeds were used to finance portions of the costs of authorized airport projects. As of December 31, 2018, there are no outstanding commercial paper notes.

Chicago O'Hare International Airport General Airport Senior Lien Revenue and Revenue Refunding Bonds, Series 2018A ($600.8 million), Senior Lien Revenue Bonds, Series 2018B ($612.1 million) and taxable Series 2018C ($800.0 million) were sold at a premium in December 2018. The bonds have interest rates ranging from 4.0 percent to 5.0 percent and maturity dates from January 1, 2020 to January 1, 2054. The net proceeds of $2,053.7 million will be used to fund certain capital projects ($1,511.7 million), to fund the common debt service reserve ($95.2 million), to repay Commercial Paper Notes ($241.8 million), to repay Line of Credit Agreement Notes ($10.1 million), to fund capitalized interest ($167.7 million), and to refund certain maturities ($25.6 million) of General Airport Revenue Bonds outstanding. The current refunding of the bonds decreased the City's total debt service payments by $3.9 million, resulting in a net economic gain of approximately $3.3 million and a book loss of approximately $0.6 million.

Midway Second Lien Revenue Refunding Bonds, Series 2018A ($45.7 million) sold in August 2018. The bonds have interest rates ranging 2.937 percent to 3.897 percent and maturity dates from January 1, 2019 to January 1, 2029. The net proceeds of $45.1 million were used to refund all of the Midway Second Lien Series 2010C. The current and advance refunding of the bonds decreased the City's total debt service payment by $65.7 million, resulting in a net economic gain of approximately $17.5 million and a book loss of approximately $3.5 million.

A loan agreement signed on May 17, 2016, with the Illinois Environment Protection Agency to line approximately 157 miles of existing sewer main. In 2018, the Sewer Fund drew $63.8 million from this loan agreement. The loan agreement has an interest rate of 1.86 percent with the maturity dates from November 1, 2018 to May 30, 2038.

A loan agreement signed on May 16, 2017, with the Illinois Environment Protection Agency as part of a 5-year rehabilitation program conducted throughout the city. Approximately 27,600 linear feet of 12 to 60 inch diameter sewer main will replace existing aging sewer main. In 2018, the Sewer Fund drew $23.9 million from this loan agreement. The loan agreement has an interest rate of 1.75 percent with the maturity dates from May 7, 2019 to November 7, 2038.

A loan agreement signed on January 22, 2016, with the Illinois Environment 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. The amount drawn from this loan agreement by the Sewer Fund in 2017 was $4.0 million. In 2018, the Sewer Fund drew an additional $0.2 million from this loan agreement. The loan agreement has an interest rate of 1.86 percent with the maturity dates from August 18, 2016 to August 18, 2036.

A loan agreement signed on November 4, 2016, with the Illinois Environment 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. The amount drawn from this loan agreement by the Sewer Fund in 2017 was $4.3 million. In 2018, the Sewer Fund drew an additional $1.8 million from this loan agreement. The loan agreement has an interest rate of 1.75 percent with the maturity dates from May 3, 2018 to November 3, 2037.

A loan agreement signed on May 27, 2014, with the Illinois Environment 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. The amount drawn from this loan agreement by the Water Fund in 2017 was $40.4 million. In 2018, the Water Fund drew an additional $3.9 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.

A loan agreement signed on June 3, 2016, with the Illinois Environment Protection Agency for the citywide water main replacement program, 55 miles of antiquated, undersized or damaged water main replaced. In 2018, the Water Fund drew $81.1 million from this loan agreement. The loan agreement has an interest rate of 1.86 percent with maturity dates from July 17, 2018 to July 17, 2037.

A loan agreement signed on July 21, 2016, with the Illinois Environment Protection Agency for the ongoing water main upgrade project, the replacement of 55 miles of water main in District 1 and 2. In 2018, the Water Fund drew $40.8 million from this loan agreement. The loan agreement has an interest rate of 1.86 percent and maturity dates from December 19, 2018 to June 19, 2038.

A loan agreement signed on December 13, 2016, with the Illinois Environment Protection Agency for the installation of water meters equipped with AMR (Automatic Meter Reading) at residences throughout the City that are currently unmetered. In 2018, the Water Fund drew $22.5 million from this loan agreement. The loan agreement has an interest rate of 1.64 percent and maturity dates July 17, 2018 to July 17, 2037.

iii) STSC Bonds and Notes

The Sales Tax Securitization Corporation Sales Tax Securitization Bonds Series 2018AB bonds were sold at a premium in January 2018. The bonds have interest rates ranging from 3.82 percent to 5.0 percent and maturity dates from January 1, 2031 to January 1, 2048. The net proceeds of $720.1 million were transferred to the City in exchange for a pledge of the City's Sales Tax Revenues and used by the City to refund all or a portion of certain outstanding General Obligation bonds. The current refunding of the bonds increased the City's total debt service payments by $349.6 million, resulting in a net economic gain of approximately $40.1 million and a book loss of approximately $6.0 million.

The Sales Tax Securitization Corporation Sales Tax Securitization Bonds Series 2018C bonds were sold at a premium in November 2018. The bonds have interest rates ranging from 5.0 percent to 5.25 percent and maturity dates from January 1, 2022 to January 1, 2048. Net proceeds of $689.3 million were transferred to the City in exchange for a pledge of the City's Sales Tax Revenues and used by the City to refund all or a portion of certain outstanding General Obligation Bonds. The current refunding of the bonds increased the City's total debt service payments by $101.6 million, resulting in a net economic gain of approximately $39.1 million and a book loss of approximately $3.2 million.

c) **Annual requirements** listed below for each year include amounts payable January 1 of the following year. Except for the Business-type activities, bonds maturing and interest payable January 1, 2019 have been excluded because funds for their payment have been provided for. Annual requirements to amortize debt outstanding as of December 31, 2018 are as follows (dollars in thousands):

	General Obligation		Tax Increment	
Year Ending December 31,	Principal	Interest	Principal	Interest
2019	$ 160,745	$ 405,256	$ 3,750	$ 875
2020	225,323	469,623	4,135	706
2021	286,916	458,743	4,375	494
2022	274,900	450,646	7,685	192
2023	277,230	438,188	-	-
2024-2028	1,397,410	1,986,343	-	-
2029-2033	1,938,400	1,566,200	-	-
2034-2038	2,280,436	843,940	-	-
2039-2043	1,060,270	163,644	-	-
	$ 7,901,630	$ 6,782,583	$ 19,945	$ 2,267

	Revenue		Sales Tax Securitization Corporation		Business-type Activities	
Year Ending December 31,	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ 4,972	$ 10,637	$ 3,000	$ 89,442	$ 486,870	$ 744,267
2020	5,352	10,404	3,150	89,292	481,204	771,261
2021	5,757	10,141	41,805	89,135	448,048	746,876
2022	6,187	9,864	48,610	87,333	476,406	725,597
2023	6,646	9,563	50,635	85,305	482,095	703,214
2024-2028	41,200	42,650	288,990	391,997	2,919,519	3,140,800
2029-2033	57,618	31,682	351,135	321,163	3,246,705	2,325,106
2034-2038	66,681	16,437	339,535	241,942	3,202,511	1,521,574
2039-2043	23,575	7,044	464,385	159,306	2,053,169	812,255
2044-2048	27,426	2,411	445,190	49,909	988,418	474,324
2049-2053	-	-	-	-	1,177,957	197,251
2054	-	-	-	-	419,465	9,523
	$ 245,414	$ 150,833	$ 2,036,435	$ 1,604,824	$ 16,382,367	$ 12,172,048

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, 2018. 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, 2018, the principal balance of variable rate bonds was $240.6 million and $247.6 million for O'Hare and Midway, respectively.

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, 2018		
	Classification	**Amount**	**Classification**	**Amount**	**Notional Amount**
Business-type Activities					
Hedges:					
Interest Rate Swaps ...	Deferred Outflow of Resources	$ 4,080	Deferred Outflow of Resources	$ (20,239)	$ 122,850

(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, 2018, 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, 2018, are as follows (dollars in thousands):

Associated Bond Issue	Notional Amounts	Effective Date	Terms	Fair Values	Termination Date	Counterparty Credit Rating
Hedging Instruments						
Business-type Activities:						
Chicago Midway International Airport Revenue Bonds (Series 2004C&D):						
Counterparty Goldman Sachs Bank USA...	73,710	12/14/2004	Pay 4.174%; receive SIFMA Plus .05%	$ (11,928)	1/1/2035	A1/A+
Counterparty Wells Fargo Bank NA...........	49,140	4/21/2011	Pay 4.247%; receive SIFMA Plus .05%	(8,311)	1/1/2035	Aa2/A+
			Total	$ (20,239)		

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, 2018, the swaps had a negative fair value of $20.2 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.

(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, 2018, 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 Principal	Variable-Rate Bonds Interest	Interest Rate Swaps, Net	Total
2019	$ 5,000	$ 2,054	$ 2,917	$ 9,971
2020	5,225	1,964	2,788	9,977
2021	5,350	1,871	2,657	9,878
2022	5,675	1,773	2,517	9,965
2023	5,925	1,671	2,372	9,968
2024 - 2028	33,850	6,645	9,434	49,929
2029 - 2033	42,175	3,297	4,680	50,152
2034 - 2035	19,650	203	288	20,141
	$ 122,850	$ 19,478	$ 27,653	$ 169,981

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 percent 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 of 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, 2018.

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 of the outstanding second lien bonds, plus (C) 115 percent of the aggregate outstanding debt service requirements for the fiscal year on of 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, 2018.

iii) **Chicago Midway International Airport Fund** - The Master Indenture of Trust securing Chicago Midway Airport Revenue Bonds 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 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 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 payment of 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, 2018.

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 sum of 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 Bond Year to pay interest on Second Lien Obligations. These requirements were met at December 31, 2018.

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, 2018.

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 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, 2018 are as follows (dollars in thousands):

	Amount Defeased	Outstanding
General Obligation Emergency Telephone System - Series 1993	$ 213,730	$ 69,930
General Obligation Refunding Bonds - Series 1993B	4,360	4,360
General Obligation Project and Refunding Bonds - Series 2004A	75,835	9,935
General Obligation Project and Refunding Bonds - Series 2008B	3,355	3,355
General Obligation Project and Refunding Bonds - Series 2008C	294,425	294,425
General Obligation Project and Refunding Bonds - Series 2008E	20,440	20,440
General Obligation Refunding Bonds - Series 2009A	31,610	31,610
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 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
Chicago-O'Hare International Airport Bonds Third Lien GARBS - Series 2008D	26,605	26,605
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
Chicago-Midway International Airport Second Lien Revenue Refunding Bonds - Series 2010C	60,090	57,580
Special Transportation Revenue Bonds - Series 2001	118,715	78,575
Total	$ 2,182,407	$ 1,822,362

11) **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, www.labfchicago.org, www.chipabf.org, and www.fabf.org.

Benefits provided - The Plans provide retirement, disability, and death benefits as established by State of Illinois 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, 2018, the following employees were covered by the benefit terms:

	Municipal Employees'	Laborers'	Policemen's	Firemen's	Total
Inactive employees or beneficiaries currently receiving benefits	25,577	3,688	13,631	5,022	47,918
Inactive employees entitled to but not yet receiving benefits	17,575	1,489	721	92	19,877
Active employees	31,285	2,715	13,438	4,487	51,925
	74,437	7,892	27,790	9,601	119,720

Contributions – For the Municipal Employees' and Laborers' Plans, 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 beginning in payment year 2023, the City's annual contributions to MEABF and LABF each be an amount actuarially determined to be sufficient to produce a funding level of 90% for each such Plan 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 2018, $727 million; in payment year 2019, $792 million; and in payment year 2020, $824 million. Additionally, P.A. 99-0506 requires that beginning in payment year 2021, the City's annual contributions to PABF and PABF each be an amount actuarially determined to be sufficient to produce a funding level of 90% for each such Plan 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, 2018, 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, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	Municipal Employees'	Laborers'	Policemen's	Firemen's
Inflation	2.50%	2.25%	2.75%	2.25%
Salary Increases	3.50% - 7.75% (a)	3.00% (b)	3.75% (c)	3.50% (d)
Investment Rate of Return	7.00% (e)	7.25% (e)	7.25%	6.75%

(a) (1.50%-6.50% for 2019-2022), 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

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, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales, 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.

The mortality actuarial assumptions used in the December 31, 2018 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:

	Target Allocation				Long-Term Expected Real Rate of Return			
Asset Class:	Municipal Employees'	Laborers'	Policemen's	Firemen's	Municipal Employees'	Laborers'	Policemen's	Firemen's
Equity	-	-	-	60.0%	-	-	-	7.19%
Domestic equity	26.0%	-	-	-	5.10%	-	-	-
U.S. equity	-	25.0%	21.0%	-	-	5.70%	6.00%	-
Non U.S. equity	-	20.0%	21.0%	-	-	5.20%	7.40%	-
Global low volatility equity	-	5.0%	-	-	-	4.70%	-	-
International equity	22.0%	-	-	-	5.30%	-	-	-
Fixed income	25.0%	20.0%	22.0%	20.0%	0.80%	(0.10%)	2.20%	3.75%
Hedge funds	10.0%	10.0%	7.0%	-	3.40%	3.50%	4.20%	-
Infrastructure	2.0%	-	-	-	5.00%	-	-	-
Private debt	-	3.0%	-	-	-	7.60%	-	-
Private equity	5.0%	4.0%	-	-	8.30%	8.70%	-	-
Private markets	-	-	17.0%	-	-	-	6.70%	-
GAA	-	-	5.0%	-	-	-	4.40%	-
Real estate	10.0%	10.0%	7.0%	8.0%	4.70%	4.90%	4.10%	6.25%
Private Real assets	-	3.0%	-	-	-	5.30%	-	-
Other investments	-	-	-	12.0%	-	-	-	5.82%
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, 2018 was 7.0 percent. 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.

Laborers' - A Single Discount Rate of 7.11 percent was used to measure the total pension liability as of December 31, 2018. 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 3.71 percent (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"). 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 2072. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2072, and the municipal bond rate was applied to all benefit payments after that date.

Policemen's - A Single Discount Rate of 7.18 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 and a municipal bond rate of 3.71 percent (based on the most recent date available on or before the measurement date of the Fidelity "20-Year Municipal GO AA Index"). 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

2079. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2079, and the municipal bond rate was applied to all benefit payments after that date.

Firemen's - A Single Discount Rate of 6.61 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 6.75 percent and a municipal bond rate of 3.71 percent (based on the most recent date available on or before the measurement date from the "state & 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 2072. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2072, and the municipal bond rate was applied to all benefit payments after that date.

Changes in the Net Pension Liability (dollars in thousands):

	Municipal Employees'	Laborers'	Policemen's	Firemen's	Total
Total pension liability					
Service cost	$ 223,528	$ 40,801 *	$ 242,998 *	$ 97,143 *	$ 604,470
Interest	1,123,348	183,135	931,731	410,821	2,649,035
Differences between expected and actual experience	95,540	15,143	(281,151)	(56,418)	(226,886)
Assumption changes	-	(11,788)	(259,052)	382,611	111,771
Benefit payments including refunds	(916,198)	(160,061)	(771,104)	(324,662)	(2,172,025)
Pension plan administrative expense	-	(3,933)	(4,626)	(3,285)	(11,844)
Net change in total pension liability	526,218	63,297	(141,204)	506,210	954,521
Total pension liability:					
Total pension liability - Beginning	16,282,396	2,630,107	13,454,462	5,746,150	38,113,115
Total pension liability - Ending (a)	$ 16,808,614	$ 2,693,404	$ 13,313,258	$ 6,252,360	$ 39,067,636
Plan fiduciary net position					
Contributions-employer	$ 349,574	$ 47,844	$ 588,035	$ 249,684	$ 1,235,137
Contributions-employee	138,400	17,837	107,186	45,894	309,317
Net investment income (loss)	(204,975)	(75,219)	(137,977)	(58,000)	(476,171)
Benefit payments including refunds of employee contribution	(916,198)	(160,061)	(771,104)	(324,662)	(2,172,025)
Administrative expenses	(6,639)	(3,933)	(4,626)	(3,285)	(18,483)
Other	-	661	1,600	6	2,267
Net change in plan fiduciary net position	(639,838)	(172,871)	(216,886)	(90,363)	(1,119,958)
Plan fiduciary net position - beginning	4,554,018	1,267,554	3,122,066	1,126,153	10,069,791
Plan fiduciary net position - ending (b)	$ 3,914,180	$ 1,094,683	$ 2,905,180	$ 1,035,790	$ 8,949,833
Net pension liability-ending (a)-(b)	$ 12,894,434	$ 1,598,721	$ 10,408,078	$ 5,216,570	$ 30,117,803

* Includes pension plan administrative expense

Changes in Actuarial Assumptions: Changes in the municipal bond rate resulted in an increase in the single discount rate for Laborers, Policemen, and Firemen. In addition, the investment return assumption for Firemen decreased from 7.50% to 6.75% resulting in a decrease in the single discount rate for Firemen, which offset the increase from the change in the municipal bond rate. See discount rate section above.

The change in the single discount rate and other assumptions decreased the net pension liability by $11.8 million for Laborers' and $259.1 million for Policemen and increased the net pension liability by $382.6 million for Firemen. These changes are being amortized into expense over a 4 year period for Laborers' and a 6 year period for Policemen and Firemen.

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, 2018, 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):

Net pension liability December 31, 2018	1% Decrease	Current Discount Rate	1% Increase
Municipal Employees' discount rate	6.00%	7.00%	8.00%
Municipal Employees' net pension liability .	$ 15,018,712	$ 12,894,434	$ 11,132,768

Laborers' - The following presents the net pension liability as of December 31, 2018, calculated using the discount rate of 7.11 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 (6.11 percent) or 1 percentage point higher (8.11 percent) than the current rate (dollars in thousands):

Net pension liability December 31, 2018	1% Decrease	Current Discount Rate	1% Increase
Laborers' discount rate	6.11%	7.11%	8.11%
Laborers' Employees' net pension liability ..	$ 1,920,456	$ 1,598,721	$ 1,329,274

Policemen's - The following presents the net pension liability as of December 31, 2018, calculated using the discount rate of 7.18 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 (6.18 percent) or 1 percentage point higher (8.18 percent) than the current rate (dollars in thousands):

Net pension liability December 31, 2018	1% Decrease	Current Discount Rate	1% Increase
Policemen's Employees' discount rate	6.18%	7.18%	8.18%
Policemen's Employees' net pension liability .	$ 11,955,692	$ 10,408,078	$ 9,104,012

Firemen's - The following presents the net pension liability as of December 31, 2018, calculated using the discount rate of 6.61 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 (5.61 percent) or 1 percentage point higher (7.61 percent) than the current rate (dollars in thousands):

Net pension liability December 31, 2018	1% Decrease	Current Discount Rate	1% Increase
Firemen's Employees' discount rate	5.61%	6.61%	7.61%
Firemen's Employees' net pension liability ...	$ 5,982,109	$ 5,216,570	$ 4,577,348

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, 2018, the City recognized pension expense/(benefit) of $1.1 billion for Municipal Employees', $839 million for Policemen's, $559 million for Firemen's, and ($49) million for Laborers', for a total pension expense of $2.4 billion. At December 31, 2018, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (dollars in thousands):

	Municipal Employees'		Laborers'		Policemen's		Firemen's	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 76,432	$ 179,468	$ 11,528	$ 30,737	$ 869	$ 467,171	$ 29,747	$ 49,661
Changes of assumptions	1,742,351	4,690,283	-	476,784	212,000	217,531	653,446	36,341
Net difference between projected and actual earnings on pension plan investments	287,533	-	90,608	-	239,957	-	94,579	-
Total	$ 2,106,316	$ 4,869,751	$ 102,136	$ 507,521	$ 452,826	$ 684,702	$ 777,772	$ 86,002

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
2019	$ 175,442	$ (299,878)	$ (3,233)	$ 180,598
2020	(1,594,569)	(145,996)	(47,080)	165,240
2021	(1,462,676)	8,131	(50,891)	135,713
2022	118,368	32,358	(23,381)	156,008
2023	-	-	(86,583)	54,211
2024	-	-	(20,708)	-
Total	$ (2,763,435)	$ (405,385)	$ (231,876)	$ 691,770

Deferred outflows and deferred inflows related to changes in proportionate share of contributions

For the year ended December 31, 2018, the City reported a pension benefit of $61.0 million, deferred inflows of $205.0 million and deferred outflows of $3.7 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, 2018, the City reported a payable of $759.1 million in accrued and other liabilities for the outstanding amount of contributions to the Pension Plans required for the year ended December 31, 2018.

State Intercepts

During 2018, Firemen's and Policemen's filed requests with the State Comptroller to withhold State payments to the City based on the claim that the City owed the respective Plan additional pension contributions, pursuant to State law (40 ILCS 5). As a result, the State Comptroller withheld various grant payments from the City with the intent of remitting those funds to the appropriate Plan. For the year ended December 31, 2018, the City has recorded $3.3 million for Firemen's and $3.2 million for Policemen's related to these State-withheld payments as part of pension expense. The City believes Firemen's and Policemen's claims are without merit. Litigation is pending in the Circuit Court of Cook County regarding the City's rights and obligations under the Pension Code and a return or credit against future contributions of any intercepted funds.

b) **Other Post Employment Benefits (OPEB) - City Obligation**

General Information about the OPEB Plan

Plans Description – The City's defined benefit OPEB plans are single-employer plans administered by the City. Certain annuitants are: (1) provided special benefits under the applicable collective bargaining agreements (CBA); (2) entitled to retiree health benefits pursuant to the City's prior promise; (3) entitled to certain Pension Fund subsidies required by court order under the 1983 and 1985 amendments to the Pension Codes; or (4) provided statutorily required duty disabled benefits. 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, the Pension Fund took the position that they were not authorized by state law to continue to pay any subsidies. In June 2017, the Illinois Appellate Court found that the Pension Funds are obligated to continue to provide the fixed monthly dollar subsidies to certain eligible annuitants pursuant to the 1983 and 1985 amendments to the Pension Code, as further discussed below. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB 75 and benefits are funded on a pay-as-you-go basis.

Benefits provided –

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. CBA retirees are required to contribute 2% of their pension for health care coverage for those retiring after the end of 2017.

An extension of the CBA was negotiated (and finalized in 2014) governing the contract period (through June 30, 2016 for Police Captains, Sergeants and Lieutenants and June 30, 2017 for remaining Policemen and Firemen). 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. Based upon prior history, the negotiations are assumed to be concluded by December 31, 2019. The OPEB liability assumes the expiration of the early retirement special benefits as of the December of the contract expiration year and also 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. It is not known whether the CBA special early retirement health benefits will be specifically eliminated, modified, or extended at this time.

Non-CBA – As of January 1, 2014, the City promised 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. In 2017, the Illinois Appellate Court, in the Underwood v. City of Chicago case, held that current and future annuitants hired prior to the execution of the now expired 2003 Korshak settlement agreement, 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. Upon remand, the circuit court later ruled that the Pension Funds are obligated to make the subsidy payments to the annuitants, but that decision may be subject to appeal. Regardless, the City is still statutorily obligated to make contributions to the Pension Funds in accordance with applicable levels required by the tax levy statutes. The Pension Funds are in the process of preparing to issue retroactive payments for these subsidies for the period of time of January 1, 2017 through December 31, 2018 and will begin making the required monthly subsidy payments going forward. Not all of the Pension Funds included the liability for the monthly subsidies in their respective actuarial valuation reports under GASB 74. For that reason, the City has included the liability for the monthly fixed subsidies for this limited group under GASB 75 and is reported together with the non-CBA liability. 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.

Employees covered by benefit terms – At December 31, 2018, the following employees were covered by the benefit terms:

	CBA Benefits	Non-CBA Benefits	Total
Active employees..	17,902	47,992	65,894
Inactive employees or beneficiaries currently receiving benefits.................................	2,802	17,812	20,614
Inactive employees entitled to but not yet receiving benefits.................................	-	-	-
	20,704	65,804	86,508

Net OPEB Liability

The City's net OPEB liability of $684.6 million was measured as of December 31, 2018, and was determined by an actuarial valuation as of that date.

Actuarial assumptions and other inputs. The net OPEB liability in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement:

Actuarial Cost Method:	Entry Normal Age
Asset Valuation Method:	Market Value
Funding Policy:	Pay as You Go
Discount Rate:	4.10%
Health Care Trend Rates:	Graded 7.75% to ultimate rate of 5%
Retirement Age:	Varies by Bargaining Group – Rates are Graded by age and service

The valuation was adjusted based on the results of actuarial experience studies prepared by the Pension Funds. The discount rate of 4.10 percent was used to measure the total OPEB liability. This Discount Rate was based upon the average 20 year general obligation Municipal Bond rate index reported under by Bond Buyer.

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, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales, as appropriate. Pre-retirement mortality rates were based on the RP-2014 Employee Mortality Table (Blue Collar mortality table for Laborers' and Firemen's). Post- Disablement mortality rates were based on the RP-2014 Healthy Annuitant mortality table for Policemen's and Blue Collar mortality table for Firemen's.

Changes in the Net OPEB Liability (dollars in thousands):

	CBA Benfits	Non-CBA Benefits	Total
Total OPEB liability			
Service cost	$ 3,954	$ 10,673	$ 14,627
Interest	15,049	9,411	24,460
Benefit changes	-	-	-
Differences between expected and actual experience	(35,640)	(7,490)	(43,130)
Assumption changes	(9,990)	22,922	12,932
Benefit payments including refunds	(49,972)	(20,606)	(70,578)
OPEB plan administrative expense	-	-	-
Net change in total OPEB liability	(76,599)	14,910	(61,689)
Total OPEB liability:			
Total OPEB liability - Beginning	462,457	283,864	746,321
Total OPEB liability - Ending (a)	$ 385,858	$ 298,774	$ 684,632
Plan fiduciary net position			
Contributions-employer	$ 49,972	$ 20,606	$ 70,578
Contributions-employee	-	-	-
Net investment income (loss)	-	-	-
Benefit payments including refunds of employee contribution	(49,972)	(20,606)	(70,578)
Administrative expenses	-	-	-
Other	-	-	-
Net change in plan fiduciary net position	-	-	-
Plan fiduciary net position - beginning	-	-	-
Plan fiduciary net position - ending (b)	$ -	$ -	$ -
Net OPEB liability-ending (a)-(b)	$ 385,858	$ 298,774	$ 684,632

Assumption changes reflect a change in the discount rate from 3.44% for beginning of the year values and 4.10% for the disclosure date.

Sensitivity of the total OPEB liability to changes in the discount rate

The following presents the total OPEB liability of the City, as well as what the City's total OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (3.10%) or 1 percentage point higher (5.10%) than the current discount rate (dollars in thousands):

	1% Decrease	Current Discount Rate	1% Increase
	3.10%	4.10%	5.10%
CBA Benefits	$ 401,280	$ 385,858	$ 371,493
Non-CBA Benefits	318,023	298,774	281,328
Total	$ 719,303	$ 684,632	$ 652,821

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates

The following presents the total OPEB liability of the City, as well as what the City's total OPEB liability would be if it were calculated using healthcare cost trend rates that are a 1 percentage point lower (6.75% decreasing to 4.00%) or 1 percentage point higher (8.75% decreasing to 6.00%) than the current healthcare cost trend rates (dollars in thousands):

	1% Decrease 6.75%-4.00%	Current Discount Rate 7.75%-5.00%	1% Increase 8.75%-6.00%
CBA Benefits	$ 371,809	$ 385,858	$ 400,742
Non-CBA Benefits	283,774	298,774	315,668
Total	$ 655,583	$ 684,632	$ 716,410

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended December 31, 2018, the City recognized OPEB expense of $35.9 million. At December 31, 2018, the City reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (dollars in thousands):

	CBA Benefits		Non-CBA Benefits		Total	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual non-investment experience	$ -	$ 31,900	$ -	$ 6,704	$ -	$ 38,604
Assumption Changes	-	8,941	20,516	-	20,516	8,941
Total	$ -	$ 40,841	$ 20,516	$ 6,704	$ 20,516	$ 47,545

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense/(benefit) as follows (dollars in thousands):

Year Ending December 31:	CBA Benefits	Non-CBA Benefits	Total
2019	$ (4,790)	$ 1,620	$ (3,170)
2020	(4,790)	1,620	(3,170)
2021	(4,790)	1,620	(3,170)
2022	(4,790)	1,620	(3,170)
2023	(4,790)	1,620	(3,170)
Thereafter	(16,891)	5,712	(11,179)
	$ (40,841)	$ 13,812	$ (27,029)

12) **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 with an excess liability insurance policy covering claims excess of the self-insured retention of $20,000,000. 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, 2018, the total amount of non-Enterprise Fund claims was $517.9 million and Enterprise Fund was $76.4 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):

	2018	2017
Balance, January 1	$ 604,262	$ 585,372
Claims incurred and change in estimates	662,203	501,767
Claims paid on current and prior year events	(672,230)	(482,877)
Balance, December 31	$ 594,235	$ 604,262

13) 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 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):

	General	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
Nonspendable Purpose:								
Inventory	$ 25,463	$ -	$ -	$ -	$ -	$ -	$ -	$ -
STSC Blended Balance *	-	-	-	-	-	2,090,686	-	-
Restricted Purpose:								
Capital Projects	-	-	1,471,732	-	-	-	347,785	121,338
Grants	-	12,371	-	-	-	-	-	-
Debt Service	-	-	-	-	-	58,044	-	-
General Government	-	-	-	-	-	-	-	-
Committed Purpose:								
Budget and Credit Rating Stabilization	-	-	-	652,456	-	-	-	-
Repair, Maintenance and City Services	-	-	-	-	-	-	-	169,067
Pension Contributions Reserve	-	-	-	-	-	-	-	-
Assigned Purpose:								
Future obligations	145,000	-	-	-	-	-	-	231
Special Projects	-	-	-	-	-	-	-	-
Assigned for Future Appropriated Fund Balance	-	-	-	-	-	-	-	-
Unassigned	161,864	(211,119)	-	(1,492,160)	(1,785,890)	-	-	(38,638)
Total Government Fund Balance	$ 332,327	$ (198,748)	$ 1,471,732	$ (839,704)	$ (1,785,890)	$ 2,148,730	$ 347,785	$ 251,998

* The STSC is a blended component unit 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 $11.0 million for the General Operating Fund, $41.1 million for the Special Taxing Areas Fund, $36.2 million for the Capital Projects Fund and $28.3 million for the Non Major Special Revenue Fund.

14) 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.

The components of the deferred outflows of resources and deferred inflows of resources at December 31, 2018 are as follows (dollars in thousands):

	Governmental Activities	Business-type Activities
Deferred Outflows of Resources:		
Deferred outflows from pension activities	$ 2,975,751	$ 463,299
Deferred outflows from other post employment benefits activities	20,516	-
Changes in proportionate share of pension contributions	3,720	210,230
Unamortized deferred bond refunding costs	148,573	208,836
Derivatives	-	20,239
Total Deferred Outflows of Resources	$ 3,148,560	$ 902,604
Deferred Inflows of Resources:		
Deferred inflows from pension activities	$ 5,096,909	$ 1,051,067
Deferred inflows from other post employment benefits activities	47,545	-
Changes in proportionate share of pension contributions	204,955	9,503
Long-Term lease and Service concession arrangements	1,492,160	1,571,212
Total Deferred Inflows of Resources	$ 6,841,569	$ 2,631,782

The components of the deferred inflows of resources related to the governmental funds at December 31, 2018 are as follows (dollars in thousands):

	General	Federal, State and Local Grants	Special Taxing Areas	Service Concession and Reserve	Bond, Note Redemption and Interest	Pension	Other Governmental Funds	Total Governmental Funds
Governmental Funds:								
Deferred inflow of resources:								
Property Taxes	$ -	$ -	$ 461,891	$ -	$ 414,677	$ 693,825	$ 21,528	$ 1,591,921
Utility Taxes	-	-	-	-	-	-	7,957	7,957
Grants	-	223,409	-	-	-	-	-	223,409
Charges for Services	2,925	-	-	-	-	-	-	2,925
Long-term Lease and Concession Agreements	-	-	-	1,492,160	-	-	-	1,492,160
Total Governmental Funds	$ 2,925	$ 223,409	$ 461,891	$ 1,492,160	$ 414,677	$ 693,825	$ 29,485	$ 3,318,372

15) 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, 2018, the Enterprise Funds have entered into contracts for approximately $1.5 billion for construction projects.

The City's pollution remediation obligation of $44.4 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.

16) **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 November 2006, the Chicago Park District entered into an agreement to transfer its ownership interests in three underground downtown public parking garages to the City, all of which are adjacent to a fourth underground downtown public parking garage built by and already owned by the City. In December 2006, the City completed a long-term concession and lease agreement of the four-garage system to a private operator to manage 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 transferred by the City to the Chicago Park District, and the remainder was used to pay off the outstanding bonds that financed the construction of the City's original garage. The City recognized a deferred inflow that will be amortized and recognized as revenue over the term of the agreement. The City recognizes $5.7 million of revenue for each year through 2105.

In January 2014, the original private concessionaire assigned all of its interests in the concession and lease agreement to a designee of its lenders in lieu of foreclosure by the lenders on their leasehold mortgage on the underground garages.

In May 2016, the designee assigned all of its interests in the concession and lease agreement to a new entity. Pursuant to the concession and lease agreement for the garages, the City approved the transfer of the concession and lease agreement.

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.

17) **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.

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 2018 reporting period, the tax reimbursement to Boeing totaled $1.9 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 2018 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 $95.4 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.
- 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 11th year and 15% in the 12th 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 11th year and 20% in the 12th year. Commercial properties will be assessed at 10% of market value for the first 10 years, 15% in the 11th year and 20% in the 12th 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 2018 reporting period, the amount of property tax revenue forgone by the City due to these incentives is estimated at $13.2 million.

18) **Restatements Due to Implementation of New Accounting Standards**

During fiscal year 2018, the City implemented GASB Statement No. 75, "*Accounting and Financial Reporting for Postemployment Benefits other than Pensions (OPEB) an amendment of GASB Statement No. 45*", revised standards of accounting and reporting for OPEB expenses and liabilities as well as allowed for the deferral of certain OPEB expense elements. As a result of implementing this statement, net position was restated at January 1, 2018. The City's net OPEB obligation of $187.6 million accounted for under GASB Statement No. 45 was eliminated and replaced by a net OPEB liability of $746.3 million. The impact of these changes on the beginning balances reported in the financial statements is shown below (in thousands):

	As Originally Reported	GASB 75 Adjustment	As Restated after GASB 75 Impact
Governmental Activities:			
Total Net (Deficit), January 1, 2018	$ (28,714,847)	$ (558,680)	$ (29,273,527)

19) **Subsequent Events**

Ratings

In April 2019, S&P Global Ratings upgraded the rating of the City's Tax Increment Allocation Revenue Refunding Bonds (Pilsen Redevelopment Project), Series 2014AB from A to A+ with a stable outlook.

Bonds

In January 2019, the Sales Tax Securitization Corporation sold Sales Tax Securitization Bonds, Taxable Series 2019A ($605.4 million). The STSC 2019A bonds were issued at interest rates of 4.637% and 4.787% with mandatory sinking fund or maturity dates between January 1, 2022 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.

In April 2019, the City sold General Obligation Bonds, Series 2019A ($722.0 million). The General Obligation 2019A bonds were issued at interest rates between 5.0% and 5.5% with mandatory sinking fund or maturity dates between January 1, 2027 and January 1, 2049. Proceeds will be used to fund certain capital projects, to retire the City's outstanding commercial paper notes, and to pay costs of issuance.

Commercial Paper and Lines of Credit

As of December 31, 2018, the outstanding balance for the City's General Obligation Line of Credit was $233.6 million. In January 2019, the City issued $150.2 million in General Obligation Commercial Paper notes to pay down $150 million of the General Obligation Line of Credit balance and to pay costs of issuance on the notes. The City has since paid down an additional $40.9 million of the General Obligation Line of Credit and all of the General Obligation Commercial Paper notes. The City's repayment obligation under the line of credit and commercial paper notes are a general obligation of the City.

REQUIRED

SUPPLEMENTARY

INFORMATION

REQUIRED SUPPLEMENTARY INFORMATION
CITY OF CHICAGO, ILLINOIS
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
Last Four Fiscal Years (dollars are in thousands)

Municipal Employees':	2018	2017	2016	2015
Total pension liability				
Service cost	$ 223,528	$ 572,534	$ 619,743	$ 226,816
Interest	1,123,348	915,711	878,369	909,067
Benefit changes	-	-	-	2,140,009
Differences between expected and actual experience	95,540	(177,755)	(127,119)	(109,835)
Assumption changes	-	(7,431,191)	(578,920)	8,711,755
Benefit payments including refunds	(916,198)	(888,174)	(859,672)	(826,036)
Pension plan administrative expense	-	-	-	-
Net change in total pension liability	$ 526,218	$ (7,008,875)	$ (67,599)	$ 11,051,776
Total pension liability - beginning	16,282,396	23,291,271	23,358,870	12,307,094
Total pension liability - ending (a)	$ 16,808,614	$ 16,282,396	$ 23,291,271	$ 23,358,870
Plan fiduciary net position				
Contributions-employer	$ 349,574	$ 261,764	$ 149,718	$ 149,225
Contributions-employee	138,400	134,765	130,391	131,428
Net investment income	(204,975)	610,515	281,419	114,025
Benefit payments including refunds of employee contribution	(916,198)	(888,174)	(859,672)	(826,036)
Administrative expenses	(6,639)	(6,473)	(7,056)	(6,701)
Other	-	5,394	-	-
Net change in plan fiduciary net position	$ (639,838)	$ 117,791	$ (305,200)	$ (438,059)
Plan fiduciary net position - beginning	4,554,018	4,436,227	4,741,427	5,179,486
Plan fiduciary net position - ending (b)	$ 3,914,180	$ 4,554,018	$ 4,436,227	$ 4,741,427
Net pension liability - ending (a)-(b)	$ 12,894,434	$ 11,728,378	$ 18,855,044	$ 18,617,443
Plan fiduciary net position as a percentage of the total pension liability	23.29 %	27.97 %	19.05 %	20.30 %
Covered payroll*	$ 1,734,596	$ 1,686,533	$ 1,646,939	$ 1,643,481
Employer's net pension liability as a percentage of covered payroll	743.37 %	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 Four Fiscal Years (dollars are in thousands)

Laborers':	2018	2017	2016	2015
Total pension liability				
Service cost *	$ 40,801	$ 80,232	$ 82,960	$ 38,389
Interest	183,135	154,047	150,166	153,812
Benefit changes	-	150	-	384,033
Differences between expected and actual experience	15,143	(62,178)	(30,428)	(46,085)
Assumption changes	(11,788)	(1,074,754)	(62,905)	1,175,935
Benefit payments including refunds	(160,061)	(157,050)	(154,683)	(152,530)
Pension plan administrative expense	(3,933)	(3,985)	(4,080)	(3,844)
Net change in total pension liability	$ 63,297	$ (1,063,538)	$ (18,970)	$ 1,549,710
Total pension liability - beginning	2,630,107	3,693,645	3,712,615	2,162,905
Total pension liability - ending (a)	$ 2,693,404	$ 2,630,107	$ 3,693,645	$ 3,712,615
Plan fiduciary net position				
Contributions-employer	$ 47,844	$ 35,457	$ 12,603	$ 12,412
Contributions-employee	17,837	17,411	17,246	16,844
Net investment income	(75,219)	207,981	57,997	(22,318)
Benefit payments including refunds of employee contribution	(160,061)	(157,050)	(154,683)	(152,530)
Administrative expenses	(3,933)	(3,985)	(4,080)	(3,844)
Other	661	-	-	-
Net change in plan fiduciary net position	$ (172,871)	$ 99,814	$ (70,917)	$ (149,436)
Plan fiduciary net position - beginning	1,267,554	1,167,740	1,238,657	1,388,093
Plan fiduciary net position - ending (b)	$ 1,094,683	$ 1,267,554	$ 1,167,740	$ 1,238,657
Net pension liability - ending (a)-(b)	$ 1,598,721	$ 1,362,553	$ 2,525,905	$ 2,473,958
Plan fiduciary net position as a percentage of the total pension liability	40.64 %	48.19 %	31.61 %	33.36 %
Covered payroll **	$ 211,482	$ 208,442	$ 208,155	$ 204,773
Employer's net pension liability as a percentage of covered payroll	755.96 %	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 Four Fiscal Years (dollars are in thousands)

Policemen's:	2018	2017	2016	2015
Total pension liability				
Service cost *	$ 242,998	$ 237,333	$ 220,570	$ 213,585
Interest	931,731	917,720	851,098	832,972
Benefit changes	-	-	606,250	-
Differences between expected and actual experience	(281,151)	(299,923)	1,801	(105,969)
Assumption changes	(259,052)	238,975	112,585	-
Benefit payments including refunds	(771,104)	(747,891)	(707,196)	(676,777)
Pension plan administrative expense	(4,626)	(4,843)	(4,750)	(4,508)
Net change in total pension liability	$ (141,204)	$ 341,371	$ 1,080,358	$ 259,303
Total pension liability - beginning	13,454,462	13,113,091	12,032,733	11,773,430
Total pension liability - ending (a)	$ 13,313,258	$ 13,454,462	$ 13,113,091	$ 12,032,733
Plan fiduciary net position				
Contributions-employer	$ 588,035	$ 494,483	$ 272,428	$ 572,836
Contributions-employee	107,186	103,011	101,476	107,626
Net investment income	(137,977)	412,190	142,699	(5,334)
Benefit payments including refunds of employee contribution	(771,104)	(747,891)	(707,196)	(676,777)
Administrative expenses	(4,626)	(4,843)	(4,750)	(4,508)
Other	1,600	97	1,413	3,092
Net change in plan fiduciary net position	$ (216,886)	$ 257,047	$ (193,930)	$ (3,065)
Plan fiduciary net position - beginning	3,122,066	2,865,019	3,058,949	3,062,014
Plan fiduciary net position - ending (b)	$ 2,905,180	$ 3,122,066	$ 2,865,019	$ 3,058,949
Net pension liability - ending (a)-(b)	$ 10,408,078	$ 10,332,396	$ 10,248,072	$ 8,973,784
Plan fiduciary net position as a percentage of the total pension liability	21.82 %	23.20 %	21.85 %	25.42 %
Covered payroll**	$ 1,205,324	$ 1,150,406	$ 1,119,527	$ 1,086,608
Employer's net pension liability as a percentage of covered payroll	863.51 %	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 Four Fiscal Years (dollars are in thousands)

Firemen's:	2018	2017	2016	2015
Total pension liability				
Service cost *	$ 97,143	$ 93,367	$ 94,115	$ 87,203
Interest	410,821	371,622	342,085	338,986
Benefit changes	-	-	227,213	-
Differences between expected and actual experience	(56,418)	26,954	24,110	(7,981)
Assumption changes	382,611	414,219	(74,373)	176,282
Benefit payments including refunds	(324,662)	(306,098)	(286,759)	(278,017)
Pension plan administrative expense	(3,285)	(3,172)	(3,217)	(3,149)
Net change in total pension liability	$ 506,210	$ 596,892	$ 323,174	$ 313,324
Total pension liability - beginning	5,746,150	5,149,258	4,826,084	4,512,760
Total pension liability - ending (a)	$ 6,252,360	$ 5,746,150	$ 5,149,258	$ 4,826,084
Plan fiduciary net position				
Contributions-employer	$ 249,684	$ 228,453	$ 154,101	$ 236,104
Contributions-employee	45,894	47,364	48,960	46,552
Net investment income	(58,000)	140,570	60,881	7,596
Benefit payments including refunds of employee contribution	(324,662)	(306,098)	(286,759)	(278,017)
Administrative expenses	(3,285)	(3,172)	(3,217)	(3,149)
Other	6	22	(53)	7
Net change in plan fiduciary net position	$ (90,363)	$ 107,139	$ (26,087)	$ 9,093
Plan fiduciary net position - beginning	1,126,153	1,019,014	1,045,101	1,036,008
Plan fiduciary net position - ending (b)	$ 1,035,790	$ 1,126,153	$ 1,019,014	$ 1,045,101
Net pension liability - ending (a)-(b)	$ 5,216,570	$ 4,619,997	$ 4,130,244	$ 3,780,983
Plan fiduciary net position as a percentage of the total pension liability	16.57 %	19.60 %	19.79 %	21.66 %
Covered payroll **	$ 456,969	$ 469,407	$ 478,471	$ 465,232
Employer's net pension liability as a percentage of covered payroll	1,141.56 %	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,	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency	Covered Payroll *	Contributions as a percentage of Covered Payroll
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 %
2018	1,049,916	349,574	700,342	1,734,596	20.15 %

* 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,	Actuarially Determined Contributions *	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency	Covered Payroll **	Contributions as a percentage of Covered Payroll
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 %
2018	129,247	47,844	81,403	211,482	22.62 %

* 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 Fiscal Years (dollars are in thousands)

Policemen's:

Years Ended December 31,	Actuarially Determined Contributions *	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency	Covered Payroll **	Contributions as a percentage of Covered Payroll
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 %
2018	924,654	589,635	335,019	1,205,324	48.92 %

* 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	Contribution Deficiency	Covered Payroll **	Contributions as a percentage of Covered Payroll
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 %
2018	412,220	249,684	162,536	456,969	54.64 %

* The historical 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	12/31/2018	(a)	12/31/2018		12/31/2018		12/31/2018	
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%		2.25%	
Salary increases	3.50% - 7.75%	(b)	3.00%	(c)	3.75%	(d)	3.50%	(e)
Investment rate of return	7.00%	(f)	7.25%	(g)	7.25%		6.75%	
Retirement Age	(h)		(i)		(j)		(i)	
Mortality	(k)		(l)		(m)		(n)	
Other information	(o)		(p)		(p)		(p)	

(a) Actuarially determined contribution amount is determined as of December 31, 2018 with appropriate interest to the end of the year.

(b) (1.50%-6.50% for 2019-2022), varying by years of service.

(c) Plus a service-based increase in the first 9 years.

(d) Plus service based increases consistent with bargaining contracts.

(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, 2018, actuarial funding valuations.

(p) The actuarial valuation is based on the statutes in effect as of December 31, 2018.

REQUIRED SUPPLEMENTARY INFORMATION
CITY OF CHICAGO, ILLINOIS
SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS
Last Fiscal Year (dollars are in thousands)

CBA Benefits	2018
Total OPEB liability	
Service cost	$ 3,954
Interest	15,049
Benefit changes	-
Differences between expected and actual experience	(35,640)
Assumption changes	(9,990)
Benefit payments including refunds	(49,972)
OPEB plan administrative expense	-
Net change in total OPEB liability	$ (76,599)
Total OPEB liability - beginning	462,457
Total OPEB liability - ending (a)	$ 385,858
Plan fiduciary net position	
Contributions-employer	$ 49,972
Contributions-employee	-
Net investment income	-
Benefit payments including refunds of member contribution	(49,972)
Administrative expenses	-
Other	-
Net change in plan fiduciary net position	$ -
Plan fiduciary net position - beginning	-
Plan fiduciary net position - ending (b)	$ -
Net OPEB liability - ending (a)-(b)	$ 385,858
Covered employee payroll*	$ 182,222
Total OPEB liability as a percentage of covered employee payroll	211.75 %

*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 2018, the City will accumulate ten years of data.

REQUIRED SUPPLEMENTARY INFORMATION
CITY OF CHICAGO, ILLINOIS
SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS - Concluded
Last Fiscal Year (dollars are in thousands)

Non-CBA Benefits	2018
Total OPEB liability	
Service cost	$ 10,673
Interest	9,411
Benefit changes	-
Differences between expected and actual experience	(7,490)
Assumption changes	22,922
Benefit payments including refunds	(20,606)
OPEB plan administrative expense	-
Net change in total OPEB liability	$ 14,910
Total OPEB liability - beginning	283,864
Total OPEB liability - ending (a)	$ 298,774
Plan fiduciary net position	
Contributions-employer	$ 20,606
Contributions-employee	-
Net investment income	-
Benefit payments including refunds of member contribution	(20,606)
Administrative expenses	-
Other	-
Net change in plan fiduciary net position	$ -
Plan fiduciary net position - beginning	-
Plan fiduciary net position - ending (b)	$ -
Net OPEB liability - ending (a)-(b)	$ 298,774
Covered employee payroll*	$2,580,360
Total OPEB liability as a percentage of covered employee payroll	11.58 %

*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 2018, the City will accumulate ten years of data.

APPENDIX D

PROPERTY TAXES

[THIS PAGE INTENTIONALLY LEFT BLANK]

PROPERTY TAXES

REAL PROPERTY ASSESSMENT, TAX LEVY AND COLLECTION PROCEDURES

General

Information in this Appendix D 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 D 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 western and southern portions of Cook County were reassessed in 2017. The City was reassessed in 2018. The suburbs in the northern portions of Cook County are being reassessed in 2019.

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 appeal 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 Illinois Department of Revenue ("**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 2009 through 2018 (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 2009-2018").

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 veterans with disabilities 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 persons with disabilities, 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 the 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 Illinois 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, the Board of Education of the City of Chicago, the School Finance Authority, City Colleges, the Metropolitan Water Reclamation District of Greater Chicago, 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 Illinois 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 2009 to 2018; the first installment penalty date has been March 1, March 2 or March 3 for all years.

Tax Year	Second Installment Penalty Date
2018	August 1, 2019
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

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 multiplied by 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 2020A Bonds are not subject to the limitations contained in the City Property Tax Limitation Ordinance.

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX E

FORM OF OPINIONS OF CO-BOND COUNSEL

[THIS PAGE INTENTIONALLY LEFT BLANK]

FORM OF OPINIONS OF CO-BOND COUNSEL

January 30, 2020

City of Chicago
City Hall
Chicago, Illinois

We have examined a record of proceedings relating to the issuance of $466,495,000 aggregate principal amount of General Obligation Bonds, Refunding Series 2020A (the "Bonds") of the City of Chicago (the "City"). The Bonds are authorized and issued pursuant to the provisions of Section 6 of Article VII of the Illinois Constitution of 1970 and by virtue of an ordinance adopted by the City Council of the City on November 26, 2019 (the "Bond Ordinance") and a Trust Indenture Securing City of Chicago General Obligation Bonds, Refunding Series 2020A, dated January 1, 2020 (the "Indenture") by and between the City and Zions Bancorporation, National Association, as trustee.

The Bonds are issuable in fully registered form in the denominations of $5,000 or any integral multiple thereof, and are dated as of January 30, 2020. The Bonds mature on January 1 in each of the following years in the respective principal amount set forth opposite each such year in the following table, and bear interest from their dated date, payable on July 1, 2020 and semiannually thereafter on January 1 and July 1 of each year, at the respective rate of interest per annum set forth opposite such principal amount:

Year	Principal Amount	Interest Rate
2021	$ 3,345,000	5.00%
2021	700,000	3.00
2022	3,460,000	5.00
2022	710,000	3.00
2023	3,635,000	5.00
2023	730,000	3.00
2024	3,040,000	5.00
2024	850,000	3.00
2025	40,600,000	5.00
2025	195,000	3.00
2026	51,225,000	5.00
2026	195,000	3.00
2027	83,920,000	5.00
2028	77,800,000	5.00
2029	91,925,000	5.00
2030	84,165,000	5.00
2031	15,760,000	5.00
2032	4,240,000	5.00

The Bonds maturing on or after January 1, 2031 are subject to redemption prior to maturity at the option of the City, in such principal amounts and from such maturities as the City shall determine and by lot for a partial redemption of Bonds having the same maturity and interest rate, on January 1, 2030 and on any date thereafter, at a redemption price equal to the principal amount thereof to be redeemed, plus accrued interest thereon to the date fixed for redemption.

We are of the opinion that:

1. The Bonds are valid and legally binding general obligations of the City for the payment of which the City has pledged its full faith and credit, and the City has power and is obligated to levy ad valorem taxes upon all the taxable property within the City for the payment of the Bonds and the interest thereon, without limitation as to rate or amount.

2. The City has the right and power to adopt the Bond Ordinance and enter into the Indenture.

3. The Bond Ordinance has been duly adopted by the City Council of the City, is in full force and effect, and is enforceable in accordance with its terms.

4. The Indenture has been duly authorized, executed and delivered by the City, is a legal, valid and binding contractual obligation of the City and is enforceable in accordance with its terms.

5. Under existing law, interest on the Bonds is not includable in the gross income of the owners thereof for Federal income tax purposes. If there is continuing compliance with the applicable requirements of the Internal Revenue Code of 1986 (the "Code"), interest on the Bonds will continue to be excluded from the gross income of the owners thereof for Federal income tax purposes. The Bonds are not "private activity bonds" within the meaning of Section 141(a) of the Code; accordingly, interest on the Bonds is not an item of tax preference for purposes of computing alternative minimum taxable income.

The Code contains certain requirements that must be satisfied from and after the date hereof in order to preserve the exclusion from gross income for Federal income tax purposes of interest on the Bonds. These requirements relate to the use and investment of the proceeds of the Bonds, the payment of certain amounts to the United States, the security and source of payment of the Bonds and the use of the property financed with the proceeds of the Bonds. The City has covenanted in the Bond Ordinance to comply with these requirements.

Interest on the Bonds is not exempt from Illinois income taxes.

In rendering the foregoing opinions, we advise you that the enforceability (but not the binding effect) of the Bonds and the Indenture (i) may be limited by any applicable bankruptcy or other laws affecting the rights or remedies of creditors now or hereafter in effect, and (ii) is subject to principles of equity in the event equitable remedies are sought, either in an action at law or in equity.

Respectfully submitted,

APPENDIX F

BOOK-ENTRY ONLY SYSTEM

[THIS PAGE INTENTIONALLY LEFT BLANK]

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 2020A Bonds make any representation as to its accuracy or completeness.

DTC will act as the initial securities depository for the 2020A 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 2020A 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 2020A Bonds. The 2020A 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 2020A 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

DTC participants' securities accounts will be credited with book-entry interests in the 2020A Bonds following confirmation of receipt of payment to the City on the date of delivery of the 2020A Bonds.

Secondary Market Trading

Secondary market trades in the 2020A 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 2020A Bonds may be transferred within DTC in accordance with procedures established for this purpose by DTC.

APPENDIX G

REFUNDED BONDS

[THIS PAGE INTENTIONALLY LEFT BLANK]

REFUNDED BONDS

The following is a list of the obligations that the City will refund with a portion of the proceeds of the Series 2020A Bonds. The CUSIP numbers are provided for convenience and no representation is made with respect to the accuracy of such CUSIP number. All of the obligations listed below are the Refunded Bonds, including the Refunded MSAC Bonds, described under the heading "PLAN OF FINANCING."

Series	CUSIP Number	Maturity Date	Interest Rate (%)	Outstanding Principal ($)	Principal Refunded ($)	Redemption Date	Redemption Price
General Obligation Bonds							
2007A	167485-D24	1/1/2026	4.250 %	$ 6,265,000	$ 6,265,000	2/20/2020	100%
2007A	167485-D32	1/1/2026	5.000 %	20,475,000	20,475,000	2/20/2020	100%
2007A	167485-D40	1/1/2027	5.000 %	38,430,000	38,430,000	2/20/2020	100%
2007A	167485-D57	1/1/2029	5.000 %	55,775,000	55,775,000	2/20/2020	100%
2007A	167485-D65	1/1/2032	5.000 %	15,680,000	15,680,000	2/20/2020	100%
2007A	167485-D81	1/1/2033	5.000 %	9,435,000	9,435,000	2/20/2020	100%
2007A	167485-D99	1/1/2037	5.000 %	83,235,000	83,235,000	2/20/2020	100%
Sub-Total				**$229,295,000**	**$229,295,000**		
2009A	167486-GU7	1/1/2024	5.000%	$ 6,640,000	$ 6,640,000	2/20/2020	100%
2009A	167486-GV5	1/1/2025	5.000%	14,390,000	14,390,000	2/20/2020	100%
2009A	167486-HK8	1/1/2025	5.000%	17,935,000	17,935,000	2/20/2020	100%
2009A	167486-GW3	1/1/2026	5.000%	4,750,000	4,750,000	2/20/2020	100%
2009A	167486-HF9	1/1/2026	5.000%	53,805,000	53,805,000	2/20/2020	100%
2009A	167486-GX1	1/1/2027	4.250%	1,290,000	1,290,000	2/20/2020	100%
2009A	167486-HH5	1/1/2027	5.000%	60,135,000	60,135,000	2/20/2020	100%
2009A	167486-HG7	1/1/2028	5.000%	64,545,000	64,545,000	2/20/2020	100%
2009A	167486-GY9	1/1/2029	5.000%	67,775,000	14,250,000	2/20/2020	100%
Sub-Total				**$291,265,000**	**$237,740,000**		
General Obligation Bonds (Modern Schools Across Chicago) / Refunded MSAC Bonds							
2007G	167485-WS6	12/1/2024	5.000 %	$14,250,000	$14,250,000	2/20/2020	100%
2007K	167485-YN5	12/1/2026	4.250 %	3,435,000	3,435,000	2/20/2020	100%
Sub-Total				**$17,685,000**	**$17,685,000**		

[THIS PAGE INTENTIONALLY LEFT BLANK]

CITY OF CHICAGO

INCORPORATED 4th MARCH 1837

URBS IN HORTO