# City of Lawrence, Kansas

Recommendations for Issuance of Bonds

\$90,680,000 Water and Sewage System Improvement Revenue Bonds, Series 2015-A

The City Commission has under consideration the issuance of bonds to to provide long term financing for various water and sewer system projects. This document provides information relative to the proposed issuance.

**KEY EVENTS:** The following summary schedule includes the timing of some of the key events that will

occur relative to the bond issuance.

March 10, 2015 City Commission sets sale date and terms

Week of March 23, 2015 Rating conference is conducted April 7, 2015, 11:00 AM Competitive bids are received

April 7, 2015, 5:45 PM City Commission considers award of bonds

On or about April 28, 2015 Proceeds are received

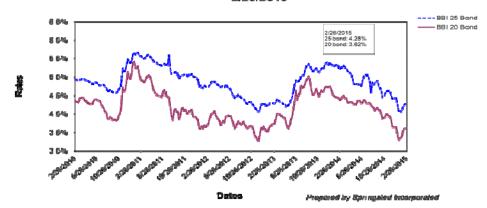
**RATING:** An application will be made to Moody's Investors Service for a rating on the Bonds. The

City's water and sewage system revenue debt is currently rated 'Aa2' by Moody's.

**THE MARKET**: Performance of the tax-exempt market is often measured by the Bond Buyer's Index ("BBI")

which measures the yield of high grade municipal bonds in the 20<sup>th</sup> year for general obligation bonds (the BBI 20 Bond Index) and the 30<sup>th</sup> year for revenue bonds (the BBI 25 Bond Index). The following chart illustrates these two indices over the past five years.

# BBI 25-bond (Revenue) and 20-bond (G.O.) Rates for 5 Years Ending 2/28/2.015



POST ISSUANCE COMPLIANCE:

The issuance of these Bonds will result in post-issuance compliance responsibilities. The responsibilities are in two primary areas: i) compliance with federal arbitrage requirements and ii) compliance with secondary disclosure requirements.

<u>Federal arbitrage requirements</u> include a wide range of implications that have been taken into account as your issue has been structured. Post-issuance compliance responsibilities for your tax-exempt issue include both rebate and yield restriction provisions of the IRS Code. In general terms the arbitrage requirements control the earnings on unexpended bond proceeds, including investment earnings, moneys held for debt service payments



(which are considered to be proceeds under the IRS regulations), and/or reserves. Under certain circumstances any "excess earnings" will need to be paid to the IRS to maintain the tax-exempt status of the Bonds. Any interest earnings on gross bond proceeds or debt service funds should not be spent until it has been determined based on actual facts that they are not "excess earnings" as defined by the IRS Code.

The arbitrage rules provide spend-down exceptions for proceeds that are spent within either a 6-month, 18-month or 24-month period in accordance with certain spending criteria. Proceeds that qualify for an exception will be exempt from rebate. These exceptions are based on actual expenditures and not based on reasonable expectations, and expenditures, including any investment proceeds will have to meet the spending criteria to qualify for the exclusion. The Bonds are expected to meet the 18-month spending exception.

Regardless of whether the issue qualifies for an exemption from the rebate provisions, yield restriction provisions will apply to the debt service fund under certain conditions and the fund should be monitored throughout the life of the Bonds.

We understand that arbitrage and rebate compliance services are being monitored internally or through a third party contract.

<u>Secondary disclosure requirements</u> result from an SEC requirement that underwriters provide ongoing disclosure information to investors. To meet this requirement, the underwriter will require the City to commit to providing the information needed to comply under a continuing disclosure agreement. The agreement will require filing with the Municipal Securities Rulemaking Board of the City's CAFR, an annual report of certain supplemental information, and events that may occur from time to time that may be material to bondholders. Failure to file when due will result in a requirement that the City disclose its failure to file in any official statement issued during the subsequent five year period.

We understand that disclosure compliance services are being monitored internally or through a third party contract.

# SUPPLEMENTAL INFORMATION AND BOND RECORD:

Supplementary information will be available to staff including detailed terms and conditions of sale, comprehensive structuring schedules and information to assist in meeting post-issuance compliance responsibilities.

Upon completion of the financing, a bond record will be provided that contains pertinent documents and final debt service calculations for the transaction.

#### PURPOSE:

Proceeds of the Bonds will be used to (i) definitively finance the City's General Obligation Temporary Notes, Series 2014-I and (ii) fund water and sewer improvements consisting of: a) Waukarusa Water Treatment Phase 2; b) water line rehabilitation and replacement; and c) sanitary sewer rehabilitation and replacement.

#### **AUTHORITY:**

<u>Statutory Authority:</u> The Bonds are being issued pursuant to Constitution and statutes of the State of Kansas, including K.S.A. 10-101 to 10-125, inclusive, K.S.A. 10-620 et seq. and K.S.A. 10-1201 et seq., as amended and supplemented from time to time.

<u>Existing Covenants/Policies:</u> The resolution authorizing the sale and delivery of the Bonds provides for the issuance of additional long-term parity bonds if the debt service coverage



ratio for the fiscal year immediately preceding the issuance of such additional parity bonds, as reflected by information provided by an independent accountant, shall be not less than 1.20, including the additional parity bonds proposed to be issued. In the event that the City has instituted any increase in rates for the use and services of the system and such increase shall not have been in effect during the full fiscal year immediately preceding the issuance of such proposed additional parity bonds, the additional net revenues, which would have resulted from the operation of the system during said preceding fiscal year had such rate increase been in effect for the entire period, may be added to the stated net revenues for the calculation of the debt service coverage ratio, provided that such estimated additional net revenues shall be determined by an engineering consultant.

The City has one issue of subordinate debt consisting of a Kansas Public Wastewater Loan Fund that it entered into in 2000. Subordinate debt is not included in the coverage calculation for the issuance of additional bonds. Annual debt service on the state loan is approximately \$3,012,000.

SECURITY AND SOURCE OF PAYMENT: The Bonds will be special obligations of the City payable solely from the net revenues derived by the City from the operation of the water and sewer system on parity with the City's outstanding and future water and sewage revenue bonds.

We recommend funding a debt service reserve fund (the "Reserve") as additional security for the Bonds because with a revenue only supported issue the credit rating agencies and the municipal bond market more commonly expect a Reserve for higher credit rated issues. There is currently no definition of a Reserve requirement for all parity debt of the water and sewer utility system. The Reserve for each series of outstanding revenue bonds was computed considering that issue on its own, meaning it is pledged solely to the holders of the individual series of bonds. Consequently, it is not practicable to consider all senior lien parity bonds in the creation of a common Reserve for the debt of the City's water and wastewater utilities. This allows for some degree of flexibility in the funding of a Reserve for each future series of bonds.

There is a three point federal test limiting the amount of a reasonably required Reserve funded from bond proceeds. That test is as follows: the lesser of (a) 10% of the stated principal amount of the obligations; (b) the maximum annual principal and interest payable on the obligations in the current year or any future year; and (c) 125% of the average annual principal and interest requirements for the obligations. The Reserve for the Bonds has been sized to be 100% of the maximum annual principal and interest requirements for the Bonds and will be pledged solely to the holders of the Bonds.

The City currently has four outstanding parity first lien bond issues outstanding. We have included an aggregate debt service schedule showing the debt service requirements for the individual parity issues.

The table below shows the revenue available for debt service and projected debt service coverage using actual Fiscal 2013 and estimated 2014 operating results and presuming the issuance of the Bonds.



# Lawrence Water/Sewer Revenue Fund Net Revenues Available For Debt Service

#### Fiscal Years Ended December 31, 2013 and 2014

	12/31/2013	12/31/2014	
Operating Revenue	\$32,259,758	\$34,252,077	
Operating Expense	(25,194,767)	(22,713,826)	
Net Operating Income (Loss)	7,064,991	11,538,252	
Add Back Depreciation and amortization	6,269,342	3,434,896	transfers out
Add Other income	81,544	<u>-</u>	
Available for Debt Service	\$13,415,877	\$14,973,148	
Average Aggregate Parity Debt Service	7,958,045	7,958,045	
Surplus (Shortfall)	\$5,457,832	\$7,015,103	
Coverage of Parity Bonds for additional bonds test	169%	188%	
Maximum Annual Debt Service (all debt)	\$12,883,467	\$12,883,467	
Overall Coverage	104%	116%	

# STRUCTURING SUMMARY:

As directed by City staff, the Bonds have been structured over a term of 25 years with level annual debt service.

In the present municipal bond market for issues of this profile, it is common to receive premium bids. A premium bid is at interest rate levels greater than market levels. In exchange for the City paying these bid interest rates, the underwriter provides an up front payment equal to the present value of the interest cost difference. In anticipation of a premium we recommend a minimum bid of par for the Bonds. In consultation with City staff, we have structured the Bonds assuming a premium bid based on a likely pricing scenario. Any premium received would be applied to the funding of the project costs and minimize the size of the borrowing.

The size of the Issue is adjustable at the time of sale to either increase or decrease the principal amount of the Bonds, as needed, to size for the required project funding amounts based on the amount of the actual winning bid. The recommended sizing of the Bonds presumes a reoffering premium of approximately \$4.3 million in excess of the par amount of the Bonds. The advantage to the City of entering the market with the expectation of premium couponing is that it affords greater control of the desired debt service structure than taking a more passive approach and needing to react to underwriting results after the fact.

# SCHEDULES ATTACHED:

Schedules attached include a sources and uses of funds, estimated pricing summary and estimated debt service requirements, including outstanding parity bonds, given the current interest environment and aggregate parity bond debt service with coverage calculated for the additional bonds test.



# RISKS/SPECIAL CONSIDERATIONS:

The outcome of this financing will rely on the market conditions at the time of the sale. Any projections included herein are estimates based on current market conditions.

# SALE TERMS AND MARKETING:

<u>Variability of Issue Size</u>: A specific provision in the sale terms permits modifications to the issue size and/or maturity structure to customize the issue once the price and interest rates are set on the day of sale.

<u>Prepayment Provisions:</u> Bonds maturing on or after November 1, 2026 may be prepaid at a price of par plus accrued interest on or after November 1, 2025.

<u>Bank Qualification:</u> The City is issuing more than \$10 million in tax-exempt obligations in the current calendar year; therefore the Bonds are not designated as bank qualified.

<u>Good Faith Deposit:</u> The lowest bidder will be required to provide a good faith deposit within a specified time after receipt of proposals. The good faith deposit will be deducted from the purchase price otherwise due at the time of closing. In the event the lowest bidder fails to comply with the accepted bid proposal, the Issuer will retain the good faith deposit.



# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Issue Summary

#### **Total Issue Sources And Uses**

Dated 04/28/2015   Delivered 04/28/2015								
	lemp Note		Issue					
	Takeout	New Projects	Summary					
Sources Of Funds								
Par Amount of Bonds	\$63,175,000.00	\$27,505,000.00	\$90,680,000.00					
Reoffering Premium	2,996,324.30	1,304,769.35	4,301,093.65					
Total Sources	\$66,171,324.30	\$28,809,769.35	\$94,981,093.65					
Uses Of Funds								
Deposit to Current Refunding Fund	61,397,500.00	-	61,397,500.00					
Waukarusa Treatment Phase 2	-	21,685,000.00	21,685,000.00					
Deposit to Debt Service Reserve Fund (DSRF)	4,014,754.53	1,747,935.47	5,762,690.00					
Water Line Rehab and Replacement	-	4,096,900.00	4,096,900.00					
Sanitary Sew er Relocation, Rehab, etc	-	949,900.00	949,900.00					
Total Underwriter's Discount (0.900%)	568,575.00	247,545.00	816,120.00					
Costs of Issuance	187,877.35	81,797.65	269,675.00					
Rounding Amount	2,617.42	691.23	3,308.65					
Total Uses	\$66,171,324.30	\$28,809,769.35	\$94,981,093.65					





# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Issue Summary

#### **Pricing Summary**

Maturity	Type of Bond	Coupon	Yield	Maturity Value	Price		YTM	Call Date	Call Price	Dollar Price
11/01/2016	Serial Coupon	2.000%	0.700%	2,460,000.00	101.947%		-	-	-	2,507,896.20
11/01/2017	Serial Coupon	2.000%	0.950%	2,510,000.00	102.596%		-	-	-	2,575,159.60
11/01/2018	Serial Coupon	2.000%	1.250%	2,565,000.00	102.566%		-	-	-	2,630,817.90
11/01/2019	Serial Coupon	2.000%	1.450%	2,615,000.00	102.391%		-	-	-	2,677,524.65
11/01/2020	Serial Coupon	2.000%	1.700%	2,670,000.00	101.571%		-	-	-	2,711,945.70
11/01/2021	Serial Coupon	2.000%	1.950%	2,720,000.00	100.304%		-	-	-	2,728,268.80
11/01/2022	Serial Coupon	3.000%	2.200%	2,775,000.00	105.508%		-	-	-	2,927,847.00
11/01/2023	Serial Coupon	3.000%	2.400%	2,855,000.00	104.592%		-	-	-	2,986,101.60
11/01/2024	Serial Coupon	3.000%	2.550%	2,945,000.00	103.778%		-	-	-	3,056,262.10
11/01/2025	Serial Coupon	3.000%	2.650%	3,035,000.00	103.191%		-	-	-	3,131,846.85
11/01/2026	Serial Coupon	3.000%	2.800%	3,120,000.00	101.809%	С	2.815%	11/01/2025	100.000%	3,176,440.80
11/01/2027	Serial Coupon	3.000%	2.900%	3,215,000.00	100.900%	С	2.914%	11/01/2025	100.000%	3,243,935.00
11/01/2028	Serial Coupon	5.000%	3.000%	3,315,000.00	117.911%	С	3.342%	11/01/2025	100.000%	3,908,749.65
11/01/2029	Serial Coupon	5.000%	3.050%	3,480,000.00	117.419%	С	3.462%	11/01/2025	100.000%	4,086,181.20
11/01/2030	Serial Coupon	5.000%	3.100%	3,655,000.00	116.928%	С	3.569%	11/01/2025	100.000%	4,273,718.40
11/01/2031	Serial Coupon	5.000%	3.150%	3,835,000.00	116.441%	С	3.664%	11/01/2025	100.000%	4,465,512.35
11/01/2032	Serial Coupon	5.000%	3.200%	4,025,000.00	115.955%	С	3.749%	11/01/2025	100.000%	4,667,188.75
11/01/2033	Serial Coupon	4.000%	3.650%	4,230,000.00	103.031%	С	3.771%	11/01/2025	100.000%	4,358,211.30
11/01/2034	Serial Coupon	4.000%	3.700%	4,400,000.00	102.592%	С	3.810%	11/01/2025	100.000%	4,514,048.00
11/01/2035	Serial Coupon	4.000%	3.750%	4,570,000.00	102.154%	С	3.847%	11/01/2025	100.000%	4,668,437.80
11/01/2036	Serial Coupon	3.800%	3.800%	4,760,000.00	100.000%		-	-	-	4,760,000.00
11/01/2037	Serial Coupon	3.850%	3.850%	4,935,000.00	100.000%		-	-	-	4,935,000.00
11/01/2038	Serial Coupon	3.900%	3.900%	5,125,000.00	100.000%		-	-	-	5,125,000.00
11/01/2039	Serial Coupon	3.950%	3.950%	5,325,000.00	100.000%		-	-	-	5,325,000.00
11/01/2040	Serial Coupon	4.000%	4.000%	5,540,000.00	100.000%					5,540,000.00
Total	-	-	-	\$90,680,000.00	-	-	-	-	-	\$94,981,093.65

#### Bid Information

Par Amount of Bonds	\$90,680,000.00
Reoffering Premium or (Discount)	4,301,093.65
Gross Production	\$94,981,093.65
Total Underwriter's Discount (0.900%)	\$(816,120.00)
Bid (103.843%)	94,164,973.65
Total Purchase Price	\$94,164,973.65
Bond Year Dollars	\$1,393,690.67
Average Life	15.369 Years
Average Coupon	3.9443710%
Net Interest Cost (NIC)	3.6943175%
True Interest Cost (TIC)	3.5720233%

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# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Issue Summary

### NET DEBT SERVICE SCHEDULE

Date	Dringing	Caunan	Interest	Total P+I	DSR	Eviatina Parity	Net New D/S	Davanua	Curnlo/Dofinit)	Eviatina	Net
Date	Principal	Coupon	Interest	TOTAL P+I	DSK	Existing Parity Net D/S	Net New D/3	Revenue	Surpls(Deficit)	Existing Subordinate DS	
11/01/2015			1,675,131.17	1,675,131.17	(29,292.49)	4,114,621.40	5,760,460.08	14,973,148.00	9.212.687.92	3,012,095.64	6,200,592.28
11/01/2016	2.460.000.00	2.000%	3,295,340,00	5,755,340.00	(57,626.90)	4,116,031.40	9.813.744.50	14,973,148.00	5,159,403.50	3.012.095.65	2,147,307.85
11/01/2017	2,510,000.00	2.000%	3,246,140.00	5,756,140.00	(57,626.90)	3,981,697.66	9,680,210.76	14,973,148.00	5,292,937.24	3,012,095.65	2,280,841.59
11/01/2018	2,565,000.00	2.000%	3,195,940.00	5,760,940.00	(57,626.90)	3,967,068.66	9,670,381.76	14,973,148.00	5,302,766.24	3,012,095.65	2,290,670.59
11/01/2019	2,615,000.00	2.000%	3,144,640.00	5,759,640.00	(57,626.90)	3,972,992.90	9,675,006.00	14,973,148.00	5,298,142.00	3,012,095.65	2,286,046.35
11/01/2020	2,670,000.00	2.000%	3,092,340.00	5,762,340.00	(57,626.90)	3,963,867.90	9,668,581.00	14,973,148.00	5,304,567.00	3,012,095.65	2,292,471.35
11/01/2021	2,720,000.00	2.000%	3,038,940.00	5,758,940.00	(57,626.90)	3,959,286.90	9,660,600.00	14,973,148.00	5,312,548.00	3,012,095.65	2,300,452.35
11/01/2022	2,775,000.00	3.000%	2,984,540.00	5,759,540.00	(57,626.90)	3,504,223.54	9,206,136.64	14,973,148.00	5,767,011.36		5,767,011.36
11/01/2023	2,855,000.00	3.000%	2,901,290.00	5,756,290.00	(57,626.90)	3,503,443.54	9,202,106.64	14,973,148.00	5,771,041.36	-	5,771,041.36
11/01/2024	2,945,000.00	3.000%	2,815,640.00	5,760,640.00	(57,626.90)	3,497,470.04	9,200,483.14	14,973,148.00	5,772,664.86	-	5,772,664.86
11/01/2025	3,035,000.00	3.000%	2,727,290.00	5,762,290.00	(57,626.90)	1,206,808.12	6,911,471.22	14,973,148.00	8,061,676.78	-	8,061,676.78
11/01/2026	3,120,000.00	3.000%	2,636,240.00	5,756,240.00	(57,626.90)	2,306,662.84	8,005,275.94	14,973,148.00	6,967,872.06	-	6,967,872.06
11/01/2027	3,215,000.00	3.000%	2,542,640.00	5,757,640.00	(57,626.90)	2,309,057.34	8,009,070.44	14,973,148.00	6,964,077.56	-	6,964,077.56
11/01/2028	3,315,000.00	5.000%	2,446,190.00	5,761,190.00	(57,626.90)	1,994,097.13	7,697,660.23	14,973,148.00	7,275,487.77	-	7,275,487.77
11/01/2029	3,480,000.00	5.000%	2,280,440.00	5,760,440.00	(57,626.90)	1,998,636.68	7,701,449.78	14,973,148.00	7,271,698.22	-	7,271,698.22
11/01/2030	3,655,000.00	5.000%	2,106,440.00	5,761,440.00	(57,626.90)	2,003,991.06	7,707,804.16	14,973,148.00	7,265,343.84	-	7,265,343.84
11/01/2031	3,835,000.00	5.000%	1,923,690.00	5,758,690.00	(57,626.90)	2,010,681.80	7,711,744.90	14,973,148.00	7,261,403.10	-	7,261,403.10
11/01/2032	4,025,000.00	5.000%	1,731,940.00	5,756,940.00	(57,626.90)	269,043.29	5,968,356.39	14,973,148.00	9,004,791.61		9,004,791.61
11/01/2033	4,230,000.00	4.000%	1,530,690.00	5,760,690.00	(57,626.90)	640,564.26	6,343,627.36	14,973,148.00	8,629,520.64		8,629,520.64
11/01/2034	4,400,000.00	4.000%	1,361,490.00	5,761,490.00	(57,626.90)	(26,346.00)	5,677,517.10	14,973,148.00	9,295,630.90	-	9,295,630.90
11/01/2035	4,570,000.00	4.000%	1,185,490.00	5,755,490.00	(57,626.90)	-	5,697,863.10	14,973,148.00	9,275,284.90	-	9,275,284.90
11/01/2036	4,760,000.00	3.800%	1,002,690.00	5,762,690.00	(57,626.90)	-	5,705,063.10	14,973,148.00	9,268,084.90	-	9,268,084.90
11/01/2037	4,935,000.00	3.850%	821,810.00	5,756,810.00	(57,626.90)	-	5,699,183.10	14,973,148.00	9,273,964.90	-	9,273,964.90
11/01/2038	5,125,000.00	3.900%	631,812.50	5,756,812.50	(57,626.90)	-	5,699,185.60	14,973,148.00	9,273,962.40	-	9,273,962.40
11/01/2039	5,325,000.00	3.950%	431,937.50	5,756,937.50	(57,626.90)	-	5,699,310.60	14,973,148.00	9,273,837.40	-	9,273,837.40
11/01/2040	5,540,000.00	4.000%	221,600.00	5,761,600.00	(5,820,316.90)	-	(58,716.90)	14,973,148.00	15,031,864.90	-	15,031,864.90
Total	\$90,680,000.00	-	\$54,972,331.17	\$145,652,331.17	(7,232,654.99)	\$53,293,900.46	\$191,713,576.64	\$389,301,848.00	\$197,588,271.36	\$21,084,669.54	\$176,503,601.82

#### SIGNIFICANT DATES

Dated	4/28/2015
Delivery Date	4/28/2015
First Coupon Date	11/01/2015
Yield Statistics	
************	£4 000 000 0 <del>7</del>
Bond Year Dollars	\$1,393,690.67
Average Life	15.369 Years
Average Life	3.9443710%
Net Interest Cost (NIC)	3.6943175%
True hierest Cost (TIC)	3.5720233%
The Bird Feet Work [10]	
Bond Yield for Arbitrage Purposes	3.3798651%
All Inclusive Cost (AIC)	3.5976819%
Net Interest Cost in Dollars	54,972,331.17
Weighted Average Naturity	15.316 Years
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# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Issue Summary

#### Coverage Ratio

Date	<b>Total Revenues</b>	Total Parity D/S	Coverage	Total D/S	Coverage
11/01/2015	15,002,440.49	5,789,752.57	2.59	8,801,848.21	1.70x
11/01/2016	15,030,774.90	9,871,371.40	1.52	12,883,467.05	1.17x
11/01/2017	15,030,774.90	9,737,837.66	1.54	12,749,933.31	1.18x
11/01/2018	15,030,774.90	9,728,008.66	1.55	12,740,104.31	1.18x
11/01/2019	15,030,774.90	9,732,632.90	1.54	12,744,728.55	1.18x
11/01/2020	15,030,774.90	9,726,207.90	1.55	12,738,303.55	1.18x
11/01/2021	15,030,774.90	9,718,226.90	1.55	12,730,322.55	1.18x
11/01/2022	15,030,774.90	9,263,763.54	1.62	9,263,763.54	1.62x
11/01/2023	15,030,774.90	9,259,733.54	1.62	9,259,733.54	1.62x
11/01/2024	15,030,774.90	9,258,110.04	1.62	9,258,110.04	1.62x
11/01/2025	15,030,774.90	6,969,098.12	2.16	6,969,098.12	2.16x
11/01/2026	15,030,774.90	8,062,902.84	1.86	8,062,902.84	1.86x
11/01/2027	15,030,774.90	8,066,697.34	1.86	8,066,697.34	1.86x
11/01/2028	15,030,774.90	7,755,287.13	1.94	7,755,287.13	1.94x
11/01/2029	15,030,774.90	7,759,076.68	1.94	7,759,076.68	1.94x
11/01/2030	15,030,774.90	7,765,431.06	1.94	7,765,431.06	1.94x
11/01/2031	15,030,774.90	7,769,371.80	1.93	7,769,371.80	1.93x
11/01/2032	15,030,774.90	6,025,983.29	2.49	6,025,983.29	2.49x
11/01/2033	15,030,774.90	6,401,254.26	2.35	6,401,254.26	2.35x
11/01/2034	15,030,774.90	5,735,144.00	2.62	5,735,144.00	2.62x
11/01/2035	15,030,774.90	5,755,490.00	2.61	5,755,490.00	2.61x
11/01/2036	15,030,774.90	5,762,690.00	2.61	5,762,690.00	2.61x
11/01/2037	15,030,774.90	5,756,810.00	2.61	5,756,810.00	2.61x
11/01/2038	15,030,774.90	5,756,812.50	2.61	5,756,812.50	2.61x
11/01/2039	15,030,774.90	5,756,937.50	2.61	5,756,937.50	2.61x
11/01/2040	20,793,464.90	5,761,600.00	3.61	5,761,600.00	3.61x
Total	\$396,534,502.99	\$198,946,231.63	-		-





# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Issue Summary

#### Aggregate New and Existing Debt Service

DATE	Series 2005A Post Sale	Series 2008A Water and SewerPost Sale	2009A Tax Wtr & Swr Sys Imp Rev BABs PS revised	Series 2007A Post Sale	Total Existing	Series 2015A	TOTAL
11/01/2015	2,356,050.00	318,060.00	647,767.50	993,200.00	4,315,077.50	1,675,131.17	5,990,208.6
11/01/2016	1,858,250.00	316,760.00	649.577.50	1,491,900.00	4,316,487.50	5,755,340.00	10,071,827.5
11/01/2017	1,303,962.50	319,822.50	650,493.76	1,907,875.00	4,182,153.76	5,756,140.00	9,938,293.7
11/01/2018	1,300,712.50	317,510.00	650,477.26	1,898,825.00	4,167,524.76	5,760,940.00	9,928,464.7
11/01/2019	1,295,975.00	320,010.00	654,489.00	1,902,975.00	4,173,449.00	5,759,640.00	9,933,089.0
11/01/2020	1,294,750.00	322,135.00	652,789.00	1,894,650.00	4,164,324.00	5,762,340.00	9,926,664.0
11/01/2021	1,291,825.00	318,335.00	655,283.00	1,894,300.00	4,159,743.00	5,758,940.00	9,918,683.0
11/01/2022	1,287,200.00	319,110.00	656,894.64	1,441,475.00	3,704,679.64	5,759,540.00	9,464,219.6
11/01/2023	1,285,875.00	319,005.00	657,594.64	1,441,425.00	3,703,899.64	5,756,290.00	9,460,189.6
11/01/2024	1,287,637.50	318,225.00	657.488.64	1,434,575.00	3,697,926.14	5,760,640.00	9,458,566.1
11/01/2025	1,282,275.00	321,750.00	656,696.88	1,431,150.00	3,691,871.88	5,762,290.00	9,454,161.8
11/01/2026	-	319,600.00	660,209.64	1,435,925.00	2,415,734.64	5,756,240.00	8,171,974.6
11/01/2027		322,000.00	662.679.14	1,433,450.00	2,418,129.14	5,757,640.00	8,175,769.1
11/01/2028	_	318,725.00	664,079.38	1,438,950.00	2,421,754.38	5,761,190.00	8,182,944.3
11/01/2029	_	-	664,384.38	1,431,975.00	2,096,359.38	5,760,440.00	7,856,799.3
11/01/2030		_	663,738.76	1,437,975.00	2,101,713.76	5,761,440.00	7,863,153.7
11/01/2031	_	_	667,129.50	1,441,275.00	2,108,404.50	5,758,690.00	7,867,094.5
11/01/2032	_	_	659,343.76	1,436,875.00	2,096,218.76	5,756,940.00	7,853,158.7
11/01/2033	_	_	660,578.14	- 1,100,070.00	660,578.14	5,760,690.00	6,421,268.1
11/01/2034	_	_	660,796.88	_	660,796.88	5,761,490.00	6,422,286.8
11/01/2035	_	_	-	_	-	5,755,490.00	5,755,490.0
11/01/2036	_	_	_	_	_	5,762,690.00	5,762,690.0
11/01/2037	_	_	_	_	_	5,756,810.00	5,756,810.0
11/01/2038	_	_	_	_	_	5,756,812.50	5,756,812.5
11/01/2030		_	_			5,756,937.50	5,756,937.5
11/01/2040	-	-	-	_	-	5,761,600.00	5,761,600.0
Total	\$15,844,512.50	\$4,471,047.50	\$13,152,491.40	\$27,788,775.00	\$61,256,826.40	\$145,652,331.17	\$206,909,157.5
					2014	Estimate Net Revs.	14,973,148.0
Par Amounts	Of Selected Issues					Average Annual DS	7,958,044.5
						ABT Coverage	1.8
Series 2005A F	Post Sale						12,720,000.0
							3,300,000.0
							9,050,000.0



# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Issue Summary

# Aggregate Net Existing Debt Service

DATE	Series 2005A	Series 2008A	2009A Tax	Series 2007A	TOTAL
	Post Sale	Water and	Wtr & Swr Sys	Post Sale	
		SewerPost	Imp Rev BABs		
		Sale	PS revised		
11/01/2015	2,264,665.70	306,710.90	627,753.62	915,491.18	4,114,621.40
11/01/2016	1,766,865.70	305,410.90	629,563.62	1,414,191.18	4,116,031.40
11/01/2017	1,212,578.20	308,473.40	630,479.88	1,830,166.18	3,981,697.66
11/01/2018	1,209,328.20	306,160.90	630,463.38	1,821,116.18	3,967,068.66
11/01/2019	1,204,590.70	308,660.90	634,475.12	1,825,266.18	3,972,992.90
11/01/2020	1,203,365.70	310,785.90	632,775.12	1,816,941.18	3,963,867.90
11/01/2021	1,200,440.70	306,985.90	635,269.12	1,816,591.18	3,959,286.90
11/01/2022	1,195,815.70	307,760.90	636,880.76	1,363,766.18	3,504,223.54
11/01/2023	1,194,490.70	307,655.90	637,580.76	1,363,716.18	3,503,443.54
11/01/2024	1,196,253.20	306,875.90	637,474.76	1,356,866.18	3,497,470.04
11/01/2025	(1,093,716.96)	310,400.90	636,683.00	1,353,441.18	1,206,808.12
11/01/2026	-	308,250.90	640,195.76	1,358,216.18	2,306,662.84
11/01/2027	-	310,650.90	642,665.26	1,355,741.18	2,309,057.34
11/01/2028	-	(11,209.55)	644,065.50	1,361,241.18	1,994,097.13
11/01/2029	-	-	644,370.50	1,354,266.18	1,998,636.68
11/01/2030	-	-	643,724.88	1,360,266.18	2,003,991.06
11/01/2031	-	-	647,115.62	1,363,566.18	2,010,681.80
11/01/2032	-	-	639,329.88	(370,286.59)	269,043.29
11/01/2033	-	-	640,564.26	-	640,564.26
11/01/2034	-	-	(26,346.00)	-	(26,346.00)
Total	\$12,554,677.54	\$3,993,574.65	\$12,085,084.80	\$24,660,563.47	\$53,293,900.46

#### Par Amounts Of Selected Issues

TOTAL	44,030,000.00
Series 2007A Post Sale w o e	18,960,000.00
2009A Tax Wtr & Sw r Sys Imp	9,050,000.00
Series 2008A Water and Sewer	3,300,000.00
Series 2005A Post Sale	12,720,000.00





# \$63,175,000

# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: Temp Note Takeout

#### **NET DEBT SERVICE SCHEDULE**

Date	Principal	Coupon	Interest	Total P+I	DSR	Existing D/S	Net New D/S
11/01/2015	-	-	1,167,024.04	1,167,024.04	(20,407.51)	4,114,621.40	5,261,237.93
11/01/2016	1,715,000.00	2.000%	2,295,785.00	4,010,785.00	(40,147.54)	4,116,031.40	8,086,668.86
11/01/2017	1,750,000.00	2.000%	2,261,485.00	4,011,485.00	(40,147.54)	3,981,697.66	7,953,035.12
11/01/2018	1,785,000.00	2.000%	2,226,485.00	4,011,485.00	(40,147.54)	3,967,068.66	7,938,406.12
11/01/2019	1,820,000.00	2.000%	2,190,785.00	4,010,785.00	(40,147.54)	3,972,992.90	7,943,630.36
11/01/2020	1,860,000.00	2.000%	2,154,385.00	4,014,385.00	(40,147.54)	3,963,867.90	7,938,105.36
11/01/2021	1,895,000.00	2.000%	2,117,185.00	4,012,185.00	(40,147.54)	3,959,286.90	7,931,324.36
11/01/2022	1,935,000.00	3.000%	2,079,285.00	4,014,285.00	(40,147.54)	3,504,223.54	7,478,361.00
11/01/2023	1,990,000.00	3.000%	2,021,235.00	4,011,235.00	(40,147.54)	3,503,443.54	7,474,531.00
11/01/2024	2,050,000.00	3.000%	1,961,535.00	4,011,535.00	(40,147.54)	3,497,470.04	7,468,857.50
11/01/2025	2,115,000.00	3.000%	1,900,035.00	4,015,035.00	(40,147.54)	1,206,808.12	5,181,695.58
11/01/2026	2,175,000.00	3.000%	1,836,585.00	4,011,585.00	(40,147.54)	2,306,662.84	6,278,100.30
11/01/2027	2,240,000.00	3.000%	1,771,335.00	4,011,335.00	(40,147.54)	2,309,057.34	6,280,244.80
11/01/2028	2,310,000.00	5.000%	1,704,135.00	4,014,135.00	(40,147.54)	1,994,097.13	5,968,084.59
11/01/2029	2,425,000.00	5.000%	1,588,635.00	4,013,635.00	(40,147.54)	1,998,636.68	5,972,124.14
11/01/2030	2,545,000.00	5.000%	1,467,385.00	4,012,385.00	(40,147.54)	2,003,991.06	5,976,228.52
11/01/2031	2,670,000.00	5.000%	1,340,135.00	4,010,135.00	(40,147.54)	2,010,681.80	5,980,669.26
11/01/2032	2,805,000.00	5.000%	1,206,635.00	4,011,635.00	(40,147.54)	269,043.29	4,240,530.75
11/01/2033	2,945,000.00	4.000%	1,066,385.00	4,011,385.00	(40,147.54)	640,564.26	4,611,801.72
11/01/2034	3,065,000.00	4.000%	948,585.00	4,013,585.00	(40,147.54)	(26,346.00)	3,947,091.46
11/01/2035	3,185,000.00	4.000%	825,985.00	4,010,985.00	(40,147.54)	-	3,970,837.46
11/01/2036	3,315,000.00	3.800%	698,585.00	4,013,585.00	(40,147.54)	-	3,973,437.46
11/01/2037	3,440,000.00	3.850%	572,615.00	4,012,615.00	(40,147.54)	-	3,972,467.46
11/01/2038	3,570,000.00	3.900%	440,175.00	4,010,175.00	(40,147.54)	-	3,970,027.46
11/01/2039	3,710,000.00	3.950%	300,945.00	4,010,945.00	(40,147.54)	-	3,970,797.46
11/01/2040	3,860,000.00	4.000%	154,400.00	4,014,400.00	(4,054,902.07)	-	(40,502.07)
Total	\$63,175,000.00	-	\$38,297,744.04	\$101,472,744.04	(5,038,850.54)	\$53,293,900.46	\$149,727,793.96

#### SIGNIFICANT DATES

Dated Date  Delivery Date  First Coupon Date	4/28/2015 4/28/2015 11/01/2015
Yield Statistics	
Bond Year Dollars	\$970,953.96
Average Life	15.369 Years
Average Coupon	3.9443419%
Net Interest Cost (NIC)	3.6943044%
True Interest Cost (TIC)	3.5720162%
Bond Yield for Arbitrage Purposes	3.3798651%
Bond Yield for Arbitrage Purposes	3.5976749%
IRS Form 8038	
Net Interest Cost	3.4831475%
Weighted Average Maturity	15.316 Years

2015A - Wtr & Swr Sys Imp | Temp Note Takeout | 2/26/2015 | 3:30 PM



# \$27,505,000

# City of Lawrence, Kansas

Water and Sewage System Improvement Revenue Bonds Series 2015-A: New Projects

#### **NET DEBT SERVICE SCHEDULE**

Date	Principal	Coupon	Interest	Total P+I	DSR	Net New D/S
11/01/2015	-	-	508,107.13	508,107.13	(8,884.98)	499,222.15
11/01/2016	745,000.00	2.000%	999,555.00	1,744,555.00	(17,479.36)	1,727,075.64
11/01/2017	760,000.00	2.000%	984,655.00	1,744,655.00	(17,479.36)	1,727,175.64
11/01/2018	780,000.00	2.000%	969,455.00	1,749,455.00	(17,479.36)	1,731,975.64
11/01/2019	795,000.00	2.000%	953,855.00	1,748,855.00	(17,479.36)	1,731,375.64
11/01/2020	810,000.00	2.000%	937,955.00	1,747,955.00	(17,479.36)	1,730,475.64
11/01/2021	825,000.00	2.000%	921,755.00	1,746,755.00	(17,479.36)	1,729,275.64
11/01/2022	840,000.00	3.000%	905,255.00	1,745,255.00	(17,479.36)	1,727,775.64
11/01/2023	865,000.00	3.000%	880,055.00	1,745,055.00	(17,479.36)	1,727,575.64
11/01/2024	895,000.00	3.000%	854,105.00	1,749,105.00	(17,479.36)	1,731,625.64
11/01/2025	920,000.00	3.000%	827,255.00	1,747,255.00	(17,479.36)	1,729,775.64
11/01/2026	945,000.00	3.000%	799,655.00	1,744,655.00	(17,479.36)	1,727,175.64
11/01/2027	975,000.00	3.000%	771,305.00	1,746,305.00	(17,479.36)	1,728,825.64
11/01/2028	1,005,000.00	5.000%	742,055.00	1,747,055.00	(17,479.36)	1,729,575.64
11/01/2029	1,055,000.00	5.000%	691,805.00	1,746,805.00	(17,479.36)	1,729,325.64
11/01/2030	1,110,000.00	5.000%	639,055.00	1,749,055.00	(17,479.36)	1,731,575.64
11/01/2031	1,165,000.00	5.000%	583,555.00	1,748,555.00	(17,479.36)	1,731,075.64
11/01/2032	1,220,000.00	5.000%	525,305.00	1,745,305.00	(17,479.36)	1,727,825.64
11/01/2033	1,285,000.00	4.000%	464,305.00	1,749,305.00	(17,479.36)	1,731,825.64
11/01/2034	1,335,000.00	4.000%	412,905.00	1,747,905.00	(17,479.36)	1,730,425.64
11/01/2035	1,385,000.00	4.000%	359,505.00	1,744,505.00	(17,479.36)	1,727,025.64
11/01/2036	1,445,000.00	3.800%	304,105.00	1,749,105.00	(17,479.36)	1,731,625.64
11/01/2037	1,495,000.00	3.850%	249,195.00	1,744,195.00	(17,479.36)	1,726,715.64
11/01/2038	1,555,000.00	3.900%	191,637.50	1,746,637.50	(17,479.36)	1,729,158.14
11/01/2039	1,615,000.00	3.950%	130,992.50	1,745,992.50	(17,479.36)	1,728,513.14
11/01/2040	1,680,000.00	4.000%	67,200.00	1,747,200.00	(1,765,414.83)	(18,214.83)
Total	\$27,505,000.00	-	\$16,674,587.13	\$44,179,587.13	(2,193,804.45)	\$41,985,782.68

#### SIGNIFICANT DATES

Dated Date	4/28/2015
Delivery Date	4/28/2015
Dated Date  Delivery Date  First Coupon Date	11/01/2015
Yield Statistics	
Bond Year Dollars	\$422,736.71
Average Life	15.369 Years
Average Coupon	3.9444379%
Net Interest Cost (NIC)	3.6943474%
True Interest Cost (TIC)	3.5720396%
Bond Yield for Arbitrage Purposes	3.3798651%
All Inclusive Cost (AIC)	3.5976978%
IRS Form 8038	
Net Interest Cost	3.4831518%
Weighted Average Maturity	15.316 Years

2015A - Wtr & Swr Sys Imp | New Projects | 2/26/2015 | 3:30 PM

