Lawrence

Contributory Retirement System Audit Report

JAN. 1, 2017 - DEC. 31, 2021

PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION
COMMONWEALTH OF MASSACHUSETTS

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December 5, 2023

The Public Employee Retirement Administration Commission (PERAC) has completed a review of the audits of the Lawrence Retirement System conducted by the firm of Powers & Sullivan, LLC, Certified Public Accountants (P&S). P&S conducted these audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits in *Government Auditing Standards*, issued by the Comptroller General of the United States. The audits covered the period from January 1, 2017, to December 31, 2021.

We conducted an inspection of the work papers prepared by P&S. We determined that the audits were conducted in a competent professional manner and the work papers demonstrated that audit tests and procedures were performed in sufficient detail to allow us to accept the final audit reports as issued.

We identified specific differences between these financial audits designed to provide an opinion on financial statements and our compliance audits performed in accordance with the accounting and management standards established by PERAC in regulation 840 CMR 25.00 and in compliance with the provisions specified in PERAC Memo #18/2019.

Accordingly, we supplemented the field work conducted in the audits by P&S with certain limited procedures designed to provide additional assurance that the accounting and management standards established by PERAC were adhered to and complied with. The specific objectives of our review were to determine: 1) that the Board is exercising appropriate fiduciary oversight, 2) that cash balances are accurately stated, 3) that travel expenses were properly documented and accounted for, 4) that retirement contributions are accurately deducted, 5) that retirement allowances were correctly calculated, and 6) that required member documentation is maintained.

To achieve these objectives, we inspected certain records of the Lawrence Retirement Board in the above areas. Specifically, we reviewed the minutes of the Board meetings for compliance with fiduciary oversight, verified cash balances, and tested a sample of travel expenses for Board approvals, supporting documentation and proper accounting. We tested the payroll records of a sample of active members to confirm that the correct percentage of regular compensation is being deducted, including the additional two percent over $30,000. We tested a sample of members who retired during our audit period to verify that their retirement allowance was calculated in accordance with the statute. We also reviewed a sample of member files for accuracy and completeness.

In our opinion, the financial records are being maintained and the management functions are being performed in conformity with the standards established by PERAC with the exception of those related to our supplemental work which are detailed in the finding presented in this report.

It should be noted that the financial statements included in this audit report were based on the work performed by P&S and the tests conducted for the periods referenced in their opinion. These audits were not performed by employees or representatives of PERAC. It should also be noted that the opinions expressed in these audit reports were based on the laws and regulations in effect at the time.

The financial statements and footnotes presented in this report were limited to the express results as of and for the years ended December 31, 2021, December 31, 2020, December 31, 2019, December 31, 2018, and December 31, 2017.

In closing, I wish to acknowledge the work of Powers & Sullivan, LLC who conducted these examinations, and the PERAC examiners who conducted limited procedures to supplement the field work and express my appreciation to the Lawrence Retirement Board and staff for their courtesy and cooperation.

Sincerely,

John W. Parsons, Esq.
Executive Director

EXPLANATION OF FINDING AND RECOMMENDATION

1. New Retiree Calculations:

We tested the retirement allowance calculations of 20 new retirees during the audit period and found the following issues:

- Four retirees are overpaid due to the calculations including a fourth partial longevity payment, in addition to three annual payments, in the three-year average salary.
- One retiree is underpaid due to the calculation excluding approximately one month of earnings in the three-year average salary.
- Three of the 20 reviewed were accidental disability retirements. Of these three, there were two with issues. One included over one year's worth of longevity in the one-year salary, resulting in an overpayment. The second included all of a retroactive payment which covered 21 months, but only three of those months applied to the final year of regular compensation, resulting in another overpayment.
- There were two folders without all the required documents. One Option D folder was missing the beneficiary birth certificate, and an Option C folder was missing both the marriage certificate and beneficiary birth certificate.

Recommendation: The Board needs to review and recalculate the retirement allowances noted and resubmit calculations to PERAC for approval. The Board should not rely on retirement deductions to determine regular compensation but should review detailed payroll records to determine regular compensation and maintain these payroll records in the retirees' folders. Folders should contain required documents to support data used in the retirement allowance calculations. The total regular compensation used in the retirement allowance calculation should not go beyond three years or one year, whichever applies.

Board Response:

The Lawrence Retirement Board has reviewed PERAC's findings and will comply with their current recommendation now and going forward.

FINAL DETERMINATION:

PERAC Audit staff will follow up in six (6) months to ensure appropriate actions have been taken regarding all findings.

SUPPLEMENTARY INFORMATION

SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

	AS OF DECEMBER 31, 2021	
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	$956,461	0.3%
PRIT Cash Fund	1,400,163	0.4%
PRIT Core Fund	341,383,859	99.3%
Grand Total	$343,740,482	100.0%

For the year ending December 31, 2021, the rate of return for the investments of the Lawrence Retirement System was 20.30%. For the ten-year period ending December 31, 2021, the rate of return for the investments of the Lawrence Retirement System averaged 10.95%. For the 37-year period ending December 31, 2021, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Lawrence Retirement System was 8.38%.

The composite rate of return for all retirement systems for the year ending December 31, 2021 was 19.51%. For the ten-year period ending December 31, 2021, the composite rate of return for the investments of all retirement systems averaged 10.86%. For the 37-year period ending December 31, 2021, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.58%.

ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of the City Comptroller who shall be a member ex-officio, a second member appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the other four board members.

Ex-officio Member:	Ramona Ceballos, Chairperson		
Appointed Member:	Pascual Ruiz	Serves until successor is appointed	
Elected Member:	Robert Wilson	Term Expires:	07/02/2025
Elected Member:	Diane Cockcroft	Term Expires:	07/02/2025
Appointed Member:	Sheryl Wright	Term Expires:	07/09/2024

The Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the system. The board must annually file a financial statement of condition for the system with the Executive Director of PERAC.

The investment of the system's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the system has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

Retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. Fidelity insurance is the only required policy coverage under Ch. 32 §21 and §23 as well as 840 CMR 17.01. The policy is designed to cover specific intentional acts such as theft, fraud or embezzlement and also specify who commits such acts, most commonly employees of the system. This coverage reimburses the system for the losses it suffers as a result of its employees' actions. It does not insure the employees for their illegal acts. Statutorily required coverage is provided by the current fidelity insurance policy to a limit of $1,000,000 with a $10,000 deductible issued through Travelers Casualty and Surety Company. The system also has Fiduciary coverage to a limit of $50,000,000 under a blanket policy issued through the Massachusetts Association of Contributory Retirement Systems.

BOARD REGULATIONS

The Lawrence Retirement Board has adopted Supplemental Regulations which are available on the PERAC website at [https://mass.gov/Lawrence-retirement-board-regulations.](https://mass.gov/Lawrence-retirement-board-regulations)

SUPPLEMENTARY INFORMATION (Continued)

ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by KMS Actuaries as of January 1, 2022.

The actuarial liability for active members was	$207,603,951
The actuarial liability for inactive members was	8,154,403
The actuarial liability for retired members and beneficiaries was	280,638,336
The total actuarial liability was	$496,396,690
System assets as of that date were (actuarial value)	306,931,298
The unfunded actuarial liability was	$189,465,392
The ratio of system's assets to total actuarial liability was	61.8%
As of that date the total covered employee payroll was	$83,668,626

The normal cost for employees on that date was	8.9% of payroll
The normal cost for the employer (including administrative expenses) was	6.5% of payroll

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	7.00% per annum
Rate of Salary Increase:	Based on service. 7.75% for 0-4 years, 3.75% thereafter for all groups

SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2022
(Dollars in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Cov. Payroll ((b-a)/c)
1/1/2022	$306,931	$496,396	$189,465	61.8%	$83,669	226.4%
1/1/2020	$255,359	$461,256	$205,897	55.4%	$75,850	271.5%
1/1/2018	$227,443	$431,442	$203,999	52.7%	$71,472	285.4%
1/1/2016	$182,660	$398,032	$215,372	45.9%	$69,996	307.7%
1/1/2014	$168,979	$379,183	$210,204	44.6%	$67,767	310.2%

SUPPLEMENTARY INFORMATION (Continued)

MEMBERSHIP EXHIBIT

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Retirement in Past Years										
Superannuation	36	19	36	34	38	33	37	46	30	36
Ordinary Disability	0	1	1	1	1	0	0	1	1	2
Accidental Disability	0	0	1	1	2	1	2	0	0	1
Total Retirements	36	20	38	36	41	34	39	47	31	39
Total Retirees, Beneficiaries and Survivors	887	866	869	886	893	894	904	922	908	923
Total Active Members	1,421	1,620	1,715	1,818	1,734	1,843	1,737	1,874	1,668	1,626
Pension Payments										
Superannuation	$12,282,529	$12,659,811	$13,105,100	$13,386,025	$13,981,919	$14,430,657	$14,748,419	$15,225,058	$15,671,285	$16,015,564
Survivor/Beneficiary Payments	1,015,239	1,016,232	998,860	1,090,049	1,158,154	1,163,250	1,228,072	1,288,125	1,285,381	1,339,445
Ordinary Disability	47,689	55,951	86,862	75,225	130,582	122,457	163,363	177,473	185,132	243,248
Accidental Disability	4,007,201	4,004,304	3,924,911	3,986,794	4,223,728	4,271,118	4,297,726	4,277,597	4,238,010	4,260,373
Other	2,266,688	2,245,186	2,314,858	2,177,098	2,584,002	2,620,314	2,919,717	2,633,935	2,603,006	2,395,123
Total Payments for Year	$19,619,346	$19,981,485	$20,430,592	$20,715,191	$22,078,385	$22,607,796	$23,357,296	$23,602,188	$23,982,815	$24,253,753

SUPPLEMENTARY INFORMATION (Continued)

LEASED PREMISES

The Lawrence Retirement Board leases approximately 2,000 square feet of space for its offices located at 354 Merrimack Street in Lawrence. The original 5-year lease commenced June 1, 2005. A fifth amendment extension was signed for a 3-year term which will expire May 31, 2025, with an annual 2% increase as of June 1, 2023. A rent abatement for two months, one month during the first year of extension and one month during the second year of extension, was included in the lease extension. The lessor is S&N Lawrence Realty, LLC.

The following schedule displays the minimum lease obligations on non-cancelable operating leases as of December 31, 2021:

For the year ending	Annual Rent
2022	$ 39,662
2023	40,166
2024	44,721
2025 (four months due to rent paid in advance)	15,005
Total future minimum lease payments required	$139,554

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2021

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2021

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Opinion

We have audited the accompanying financial statements of Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise the Lawrence Contributory Retirement Systems' financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Lawrence Contributory Retirement System as of December 31, 2021, and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management's 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, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform auditing procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We 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 financial statements, and other knowledge we obtained during our audit of the 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated August 31, 2022, on our consideration of the Lawrence Contributory Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the

System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Lawrence Contributory Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 31, 2022

Management's Discussion and Analysis

As management of the Lawrence Contributory Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2021. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by $342.7 million (net position).
- The System's net position increased by $55.8 million for the year ended December 31, 2021.
- Total investment income was $57.8 million; investment expenses were $1.5 million, and net investment income was $56.2 million.
- Total contributions were $31.5 million including $22.8 million from employers, $7.6 million from members, and $1.1 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $31.4 million.
- Administrative expenses were $507,000.
- The total pension liability is $496.4 million as of December 31, 2021, while the net pension liability is $153.7 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 69.03%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities 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 is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent 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 related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's assets exceeded liabilities by $342.7 million at the close of 2021.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the System's net position include investments of $341.4 million, cash of $2.4 million, accounts receivable of $556,000 and other assets of $13,000.

In 2021 the System's contributions were $31.5 million, while deductions were $31.9 million which resulted in a current deficiency of ($411,000). In 2020, the System's contributions were $31.1 million while deductions were $30.5 million which resulted in a prior year surplus of $658,000. The System was able to substantially sustain operations independent of investment income for both years.

The primary change in net position when comparing the 2021 and 2020 results relates to each year's investment performance. Net investment income was $56.2 million in 2021, as compared to net investment income of $30.8 million in 2020. The annual money weighted rate of return was 19.69% and 12.01% in 2021 and 2020, respectively. Fluctuations in the System's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2021	2020
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 2,356,624	$ 2,189,794
Investments	341,383,859	285,714,354
Receivables	555,902	584,439
Other assets	12,663	12,187
Total assets	344,309,048	288,500,774
Liabilities:		
Accounts payable	1,649,793	1,649,124
Net Position Restricted for Pension Benefits	$ 342,659,255	$ 286,851,650

	2021	2020
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions	$ 7,616,774	$ 7,713,914
Employer contributions	22,825,030	22,075,444
Other contributions	1,037,842	1,328,568
Total contributions	31,479,646	31,117,926
Net investment income	56,218,505	30,834,840
Total additions	87,698,151	61,952,766
Deductions:		
Administration	506,754	511,249
Retirement benefits, refunds and transfers	31,383,792	29,948,572
Total deductions	31,890,546	30,459,821
Net increase (decrease) in fiduciary net position	55,807,605	31,492,945
Fiduciary net position at beginning of year	286,851,650	255,358,705
Fiduciary net position at end of year	$ 342,659,255	$ 286,851,650

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 354 Merrimack Street, Suite 302, Lawrence, MA 01843.

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STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2021

Assets		
Cash and cash equivalents	$	2,356,624
Investments:		
Investments in Pension Reserve Investment Trust		341,383,859
Receivables, net of allowance for uncollectibles:		
Other accounts receivable		555,902
Other assets		12,663
Total Assets		344,309,048
Liabilities		
Warrants payable		1,649,793
Net Position Restricted for Pensions	$	342,659,255

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2021

Additions:		
Contributions:		
Employer pension appropriation	$	22,825,030
Member contributions		7,616,774
Retirement benefits - transfers from other systems		319,908
Retirement benefits - 3(8)(c) contributions from other systems		392,137
Retirement benefits - workers' compensation settlements		8,600
Retirement benefits - state COLA reimbursements		194,202
Retirement benefits - members' makeup payments and redeposits		121,643
Retirement benefits - interest not refunded		177
Retirement benefits - reimbursement of 91A overearnings		1,175
Total contributions		31,479,646
Net investment income:		
Investment income		57,765,274
Less: investment expense		(1,546,769)
Net investment income		56,218,505
Total additions		87,698,151
Deductions:		
Administration		506,754
Retirement benefits and refunds		28,996,912
Retirement benefits - transfers to other systems		1,078,281
Retirement benefits - 3(8)(c) transfer to other systems		1,308,599
Total deductions		31,890,546
Net increase (decrease) in fiduciary net position		55,807,605
Fiduciary net position at beginning of year		286,851,650
Fiduciary net position at end of year	$	342,659,255

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Lawrence Contributory Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Lawrence Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees. The System has four participating employers.

The System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The System is a Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement System; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are

deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System adopted Section 22d of Chapter 32 in April of 1989. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Lawrence Contributory Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

The System is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, federal grant reimbursements, and 3(8)c reimbursements due from other systems. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The System did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The System did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the Lawrence City Comptroller, who shall be a member ex-officio, a second member appointed by the Mayor of Lawrence, a third and fourth member who shall be elected by the members in or retired from the service of such System, and a fifth member appointed by the other members.

Chairman	Thomas M. Cuddy	Term Expires:	Indefinite
Elected Member	Kevin Loughlin	Term Expires:	7/1/2022
Elected Member	Gina Rizzo	Term Expires:	10/14/2024
Appointed Member	Sheryl Wright	Term Expires:	7/9/2024
Ex-officio Member	Ramona Ceballos	Term Expires:	Indefinite

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2021, the carrying amount of the System's deposits totaled $2,356,624 and the bank balance totaled $2,423,502. Of the bank balance, $1,023,339 was covered by Federal Depository Insurance, and the remaining amount of $1,400,163, which was the amount held in the PRIT cash fund, was uninsured.

Investments

The System's investments as of December 31, 2021, consist of $341,383,859 in PRIT pooled funds.

100% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Administration's annual money-weighted rate of return on pension plan investments was a gain of 19.69%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2021:

Retirees and beneficiaries currently receiving benefits	923
Inactive members	770
Active members	1,626
Total	3,319

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2021, were as follows:

Total pension liability	$	496,396,690
The pension plan's fiduciary net position		(342,659,255)
The net pension liability	$	153,737,435
The pension plan's fiduciary net position as a percentage of the total pension liability		69.03%

The total pension liability was determined by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions, applied to all periods included in the measurement that was rolled back to December 31, 2021:

Valuation date	January 1, 2022
Actuarial cost method	Entry Age Normal
Asset valuation method	Market value of assets as of December 31, 2021
Projected salary increases	3.75% - 7.75%, based on service
Inflation	2.4% per year
Investment rate of return/Discount rate	7.00%, net of pension plan investment expense, including inflatic
Mortality Rates	Based on the RP-2014 Blue Collar Mortality Table with full generational mortality improvement using Scale MP-2020.
Disabled Mortality Rates	Based on the RP-2014 Blue Collar Mortality Table set forward one year with full generational mortality improvement using Scale MP-2020.

Investment policy

The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2021, are summarized in the table on the following page.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	38.00%	4.22%
Core Fixed Income	15.00%	0.70%
Value Added Fixed Income	8.00%	4.00%
Private Equity	15.00%	7.70%
Real Estate	10.00%	3.60%
Timberland	4.00%	4.20%
Portfolio Completion Strategies	10.00%	3.00%
	100.00%	

Discount rate

The discount rate used to measure the total pension liability was 7.00% and 7.25% as of December 31, 2021 and December 31, 2020, respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate

The following presents the net position liability, calculated using the discount rate of 7.00%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Current Discount (7.00%)	1% Increase (8.00%)
Lawrence Retirement System's net pension liability as of December 31, 2021	$ 209,749,099	$ 153,737,435	$ 106,404,655

Contributions

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2021, cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2021.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

There were no GASB pronouncements required to be implemented in 2021 that impacted the System's financial statements.

None of the issued GASB statements that are required to be implemented in future years are anticipated to impact the System's financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 31, 2022, which is the date the financial statements were available to be issued.

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Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017
Total pension liability:				
Service cost	$ 8,469,461	$ 8,829,413	$ 8,737,363	$ 9,108,701
Interest	29,607,284	30,713,326	31,842,170	32,023,014
Differences between expected and actual experience	-	-	(11,573,571)	1,144,844
Changes in assumptions	-	-	-	9,356,284
Benefit payments	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)
Net change in total pension liability	13,423,745	15,865,369	2,913,421	23,637,703
Total pension liability - beginning	385,886,510	399,310,255	415,175,624	418,089,045
Total pension liability - ending (a)	$ 399,310,255	$ 415,175,624	$ 418,089,045	$ 441,726,748
Plan fiduciary net position:				
Employer pension appropriation	$ 17,323,139	$ 18,508,811	$ 19,329,195	$ 20,605,965
Member contributions	6,950,852	6,706,412	6,851,473	6,781,214
Net investment income (loss)	12,432,925	1,013,895	13,190,264	33,087,835
Administrative expenses	(454,640)	(470,218)	(472,754)	(503,253)
Retirement benefits and refunds	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)
Net increase (decrease) in fiduciary net position	11,599,276	2,081,530	12,805,637	31,976,621
Fiduciary net position - beginning of year	168,979,467	180,578,743	182,660,273	195,465,910
Fiduciary net position - end of year (b)	$ 180,578,743	$ 182,660,273	$ 195,465,910	$ 227,442,531
Net pension liability - ending (a)-(b)	$ 218,731,512	$ 232,515,351	$ 222,623,135	$ 214,284,217
Plan fiduciary net position as a percentage of the total pension liability	45.22%	44.00%	46.75%	51.49%
Covered-employee payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566
Net pension liability as a percentage of covered-employee payroll	306.98%	311.58%	301.90%	276.78%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

	December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021
	$ 9,495,821	$ 9,873,518	$ 10,155,774	$ 10,543,987
	32,766,855	33,814,517	33,897,815	33,879,521
	-	(5,276,740)	-	(13,283,146)
	-	6,640,447	-	8,496,574
	(28,662,273)	(28,706,774)	(28,620,004)	(30,345,950)
	13,600,403	16,344,968	15,433,585	9,290,986
	441,726,748	455,327,151	471,672,119	487,105,704
	$ 455,327,151	$ 471,672,119	$ 487,105,704	$ 496,396,690
	$ 20,798,277	$ 21,372,967	$ 22,075,444	$ 22,825,030
	6,843,880	7,219,910	7,713,914	7,616,774
	(5,258,484)	35,297,869	30,834,840	56,218,505
	(502,442)	(486,756)	(511,249)	(506,754)
	(28,662,273)	(28,706,774)	(28,620,004)	(30,345,950)
	(6,781,042)	34,697,216	31,492,945	55,807,605
	227,442,531	220,661,489	255,358,705	286,851,650
	$ 220,661,489	$ 255,358,705	$ 286,851,650	$ 342,659,255
	$ 234,665,662	$ 216,313,414	$ 200,254,054	$ 153,737,435
	48.46%	54.14%	58.89%	69.03%
	$ 75,251,536	$ 75,849,815	$ 76,525,906	$ 79,526,303
	311.84%	285.19%	261.68%	193.32%

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017
Actuarially determined contribution	$ 17,714,868	$ 18,515,120	$ 19,320,161	$ 20,684,393
Contributions in relation to the actuarially determined contribution	(17,714,868)	(18,508,911)	(19,162,742)	(19,958,286)
Settlement of M.V.R.T.A past service cost	-	-	(166,453)	(647,679)
Contribution deficiency (excess)	$ -	$ 6,209	$ (9,034)	$ 78,428
Covered-employee payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566
Contributions as a percentage of covered-employee payroll	24.86%	24.80%	25.99%	25.78%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021
$ 20,756,572	$ 21,375,578	$ 21,607,083	$ 22,801,808
(20,798,277)	(21,372,967)	(22,075,444)	(22,825,030)
-	-	-	-
$ (41,705)	$ 2,611	$ (468,361)	$ (23,222)
$ 75,251,536	$ 75,849,815	$ 76,525,906	$ 79,526,303
27.64%	28.18%	28.85%	28.70%

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2021	19.69%
December 31, 2020	12.01%
December 31, 2019	16.03%
December 31, 2018	-2.29%
December 31, 2017	17.07%
December 31, 2016	7.53%
December 31, 2015	0.59%
December 31, 2014	7.39%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Systems total pension liability, changes in the Systems net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions:

The discount rate decreased from 7.25% to 7.00% and the mortality improvement scale has been updated.

Changes in Plan Provisions:

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Report on the Audit of the Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

Opinion

We have audited the accompanying schedule of employer allocations of the Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2021, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the System Pension Plan as of and for the year ended December 31, 2021, and the related notes.

In our opinion, the accompanying schedule of employer allocations and schedule of pension amounts by employer present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Lawrence Contributory Retirement System as of and for the year ended December 31, 2021, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our rsponsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the schedules.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedules, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedules.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedules.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter

We have audited, in accordance with GAAS, the financial statements of the Lawrence Contributory Retirement System as of and for the year ended December 31, 2021, and our report thereon, dated August 31, 2022, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System management, the Lawrence Contributory Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 31, 2022

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2021

Employer	FY2022 Pension Fund Appropriation	Direct Appropriation E.R.I.	FY2022 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
City of Lawrence	$ 19,560,438	$ 1,025,620	$ 20,586,058	$ 138,813,305	90.29%
Greater Lawrence Regional Vocational Tech	1,073,174	46,310	1,119,484	7,540,257	4.90%
Lawrence Housing Authority	977,587	5,713	983,300	6,622,993	4.31%
M.V.R.T.A.	112,966	-	112,966	760,880	0.49%
Total	$ 21,724,165	$ 1,077,643	$ 22,801,808	$ 153,737,435	100.00%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2021

	City of Lawrence	Greater Lawrence Regional Vocational Tech	Lawrence Housing Authority	M V R T A	Totals
Net Pension Liability					
Beginning net pension liability	$ 180,700,344	$ 9,697,662	$ 8,883,064	$ 972,984	$ 200,254,054
Ending net pension liability	$ 138,813,305	$ 7,540,257	$ 6,622,993	$ 760,880	$ 153,737,435
Deferred Outflows of Resources					
Differences between expected and actual experience	$ 186,406	$ 10,126	$ 8,894	$ 1,022	$ 206,448
Changes of assumptions	10,767,112	584,863	513,715	59,018	11,924,708
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,033,925	697,876	690,368	311,971	2,734,140
Total Deferred Outflows of Resources	$ 11,987,443	$ 1,292,865	$ 1,212,977	$ 372,011	$ 14,865,296
Deferred Inflows of Resources					
Differences between expected and actual experience	$ 13,509,672	$ 733,837	$ 644,567	$ 74,051	$ 14,962,127
Net difference between projected and actual investment earnings on pension plan investments	35,138,795	1,908,719	1,676,525	192,607	38,916,646
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,340,493	199,260	1,194,387	-	2,734,140
Total Deferred Inflows of Resources	$ 49,988,960	$ 2,841,816	$ 3,515,479	$ 266,658	$ 56,612,913
Pension Expense					
Proportionate share of plan pension expense	$ 3,160,413	$ 171,670	$ 150,788	$ 17,325	$ 3,500,196
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(340,587)	296,009	(132,720)	177,298	-
Total Employer Pension Expense	$ 2,819,826	$ 467,679	$ 18,068	$ 194,623	$ 3,500,196
Contributions					
Actuarially determined contribution	$ 20,586,058	$ 1,119,484	$ 983,300	$ 112,966	$ 22,801,808
Contribution in relation to statutory required contribution	(20,609,280)	(1,119,484)	(983,300)	(112,966)	(22,825,030)
Contribution deficiency/(excess)	$ (23,222)	$ -	$ -	$ -	$ (23,222)
Contributions as a percentage of covered payroll	28.70%	30.00%	26.90%	27.78%	28.67%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense					
June 30, 2022	$ (8,774,631)	$ (143,127)	$ (539,439)	$ 119,906	$ (9,337,291)
June 30, 2023	(12,580,188)	(581,731)	(657,654)	(9,380)	(13,828,953)
June 30, 2024	(9,367,060)	(406,798)	(470,834)	(2,256)	(10,246,948)
June 30, 2025	(6,983,005)	(410,115)	(600,601)	(2,617)	(7,996,338)
June 30, 2026	(296,633)	(7,180)	(33,974)	(300)	(338,087)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ (38,001,517)	$ (1,548,951)	$ (2,302,502)	$ 105,353	$ (41,747,617)
Discount Rate Sensitivity					
1% decrease (6.00%)	$ 189,387,611	$ 10,287,424	$ 9,035,970	$ 1,038,094	$ 209,749,099
Current discount rate (7.00%)	$ 138,813,305	$ 7,540,257	$ 6,622,993	$ 760,880	$ 153,737,435
1% increase (8.00%)	$ 96,075,375	$ 5,218,758	$ 4,583,902	$ 526,620	$ 106,404,655
Covered Payroll	$ 71,733,252	$ 3,731,412	$ 3,654,976	$ 406,663	$ 79,526,303

See notes to schedule of employer allocations and schedule of pension amounts by employer.

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Lawrence Contributory Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2020, were applied to allocate the System's December 31, 2021, pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP and is separately identified in the System's funding schedule.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions:

The discount rate decreased from 7.25% to 7.00% and the mortality improvement scale has been updated.

Changes in Plan Provisions:

None.

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INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to the financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Lawrence Contributory Retirement System (System), as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise the System's financial statements, and have issued our report thereon dated August 31, 2022.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) as a basis for designing the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of System's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Powers & Sullivan LLC

August 31, 2022

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2020

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2020

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Financial Section

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2020, and the related notes to the financial statements, which collectively comprise the Lawrence Contributory Retirement Systems' 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 an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Lawrence Contributory Retirement System as of December 31, 2020, and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We 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 financial statements, and other knowledge we obtained during our audit of the 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 22, 2021, on our consideration of the Lawrence Contributory Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Lawrence Contributory Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

June 22, 2021

Management's Discussion and Analysis

As management of the Lawrence Contributory Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2020. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by $286.9 million (net position).
- The System's net position increased by $31.5 million for the year ended December 31, 2020.
- Total investment income was $32.1 million; investment expenses were $1.2 million, and net investment income was $30.8 million.
- Total contributions were $31.1 million including $22.1 million from employers, $7.7 million from members, and $1.3 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $29.9 million.
- Administrative expenses were $511,000.
- The total pension liability is $487.1 million as of December 31, 2020, while the net pension liability is $200.3 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 58.89%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities 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 is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent 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 related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's assets exceeded liabilities by $286.9 million at the close of 2020.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the System's net position include investments of $285.7 million, cash of $2.2 million, accounts receivable of $584,000 and other assets of $12,200.

In 2020 the System's contributions were $31.1 million, while deductions were $30.5 million which resulted in a current increase of $658,000. In 2019, the System's contributions were $29.7 million while deductions were $30.3 million which resulted in a prior year decrease of ($601,000). For 2020, the System was able to sustain operations independent of investment income, and for 2019, the System was unable to.

The primary change in net position when comparing the 2020 and 2019 results relates to each year's investment performance. Net investment income was $30.8 million 2020, as compared to net investment income of $35.3 million in 2019. The annual money weighted rate of return was 12.01% and 16.03% in 2020 and 2019, respectively. Fluctuations in the System's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2020	2019
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 2,189,794	$ 2,044,230
Investments	285,714,354	254,078,313
Receivables	584,439	535,883
Other assets	12,187	11,733
Total assets	288,500,774	256,670,159
Liabilities:		
Accounts payable	1,649,124	1,311,454
Net Position Restricted for Pension Benefits	$ 286,851,650	$ 255,358,705

	2020	2019
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions	$ 7,713,914	$ 7,219,910
Employer contributions	22,075,444	21,372,967
Other contributions	1,328,568	1,118,622
Total contributions	31,117,926	29,711,499
Net investment income	30,834,840	35,297,869
Total additions	61,952,766	65,009,368
Deductions:		
Administration	511,249	486,756
Retirement benefits, refunds and transfers	29,948,572	29,825,396
Total deductions	30,459,821	30,312,152
Net increase (decrease) in fiduciary net position	31,492,945	34,697,216
Fiduciary net position at beginning of year	255,358,705	220,661,489
Fiduciary net position at end of year	$ 286,851,650	$ 255,358,705

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 354 Merrimack Street, Suite 302, Lawrence, MA 01843.

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STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2020

Assets		
Cash and cash equivalents	$	2,189,794
Investments:		
Investments in Pension Reserve Investment Trust		285,714,354
Receivables, net of allowance for uncollectibles:		
Other accounts receivable		584,439
Other assets		12,187
Total Assets		288,500,774
Liabilities		
Warrants payable		1,649,124
Net Position Restricted for Pensions	$	286,851,650

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2020

Additions:		
Contributions:		
Employer pension appropriation	$	22,075,444
Member contributions		7,713,914
Transfers from other systems		673,029
3(8)(c) contributions from other systems		358,995
State COLA reimbursements		217,057
Members' makeup payments and redeposits		76,344
Interest not refunded		3,143
Total contributions		31,117,926
Net investment income:		
Investment income		32,067,396
Less: investment expense		(1,232,556)
Net investment income		30,834,840
Total additions		61,952,766
Deductions:		
Administration		511,249
Retirement benefits and refunds		27,775,780
Transfers to other systems		759,337
3(8)(c) transfer to other systems		1,413,455
Total deductions		30,459,821
Net increase (decrease) in fiduciary net position		31,492,945
Fiduciary net position at beginning of year		255,358,705
Fiduciary net position at end of year	$	286,851,650

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Lawrence Contributory Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Lawrence Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees. The System has four participating employers.

The System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement System; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are

deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System adopted Section 22d of Chapter 32 in April of 1989. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Lawrence Contributory Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

The System is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, federal grant reimbursements, and 3(8)c reimbursements due from other systems. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The System did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The System did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the Lawrence City Comptroller, who shall be a member ex-officio, a second member appointed by the Mayor of Lawrence, a third and fourth member who shall be elected by the members in or retired from the service of such System, and a fifth member appointed by the other members.

Chairman	William Bateman	Term Expires:	1/28/2022
Elected Member	Kevin Loughlin	Term Expires:	7/1/2022
Elected Member	Gina Rizzo	Term Expires:	10/15/2021
Appointed Member	Thomas M. Cuddy	Term Expires:	Indefinite
Ex-officio Member	Ramona Ceballos	Term Expires:	Indefinite

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2020, the carrying amount of the System's deposits totaled $2,189,794 and the bank balance totaled $2,318,885. Of the bank balance, $1,218,690 was covered by Federal Depository Insurance, and the remaining amount of $1,100,195, which was the amount held in the PRIT cash fund, was uninsured.

Investments

The System's investments as of December 31, 2020, consist of $285,714,354 in PRIT pooled funds.

100% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Administration's annual money-weighted rate of return on pension plan investments was a gain of 12.01%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

PRIT Investments are valued using the net asset value (NAV) method. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2020:

Retirees and beneficiaries currently receiving benefits	908
Inactive members	663
Active members	1,668
Total	3,239

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2020, were as follows:

Total pension liability	$	487,105,704
The pension plan's fiduciary net position		(286,851,650)
The net pension liability	$	200,254,054
The pension plan's fiduciary net position as a percentage of the total pension liability		58.89%

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement that was rolled forward to December 31, 2020:

Valuation date	January 1, 2020
Actuarial cost method	Entry Age Normal.
Amortization method	3.67% amortization increase.
Remaining amortization period	16 years for the fresh start base.
Asset valuation method	Market value of assets as of the valuation date.
Projected salary increases	7.75% - 3.75%, based on service.
Inflation	2.3% per year.
Cost of living adjustments	3% of first $12,000 of a member's retirement allowance.
Rates of retirement	Groups 1 and 2; Ages 50 - 70 Group 4; Ages 50 - 65
Rates of disability	Groups 1 and 2; ages 50 - 70 Group 4; Ages 50 - 65
Mortality Rates	RP-2014 adjusted to 2006 and projected generationally using MP-2019. For members retired under an Accidental Disability (job-related), 50% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP-2014 adjusted to 2006 and projected generationally using MP-2019, ages set forward two years.
Investment rate of return/Discount rate	7.25%.

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 3.0%. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2020, are summarized in the table on the following page.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equities	23.10%	6.40%
International Equities	14.40%	6.60%
Emerging Markets Equities	5.80%	8.40%
Core Fixed Income	15.80%	2.70%
Value Added Fixed Income	7.40%	6.20%
Private Equity	12.60%	10.20%
Real Estate	8.30%	6.00%
Timberland	3.30%	6.60%
Hedge Funds, PCP	8.80%	5.20%
Liquidating Portfolios	0.10%	0.00%
Overlay	0.60%	0.00%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.25%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease 6.25%	Current Discount 7.25%	1% Increase 8.25%
Lawrence Retirement System's net pension liability as of December 31, 2020	$ 253,259,342	$ 200,254,054	$ 155,478,056

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2020, cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2020.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

There were no GASB pronouncements required to be implemented in 2020 that impacted the Association's financial statements.

None of the issued GASB statements that are required to be implemented in future years are anticipated to impact the Association's financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through June 22, 2021, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020
Total pension liability:							
Service cost	$ 8,469,461	$ 8,829,413	$ 8,737,363	$ 9,108,701	$ 9,495,821	$ 9,873,518	$ 10,155,774
Interest	29,607,284	30,713,326	31,842,170	32,023,014	32,766,855	33,814,517	33,897,815
Differences between expected and actual experience	-	-	(11,573,571)	1,144,844	-	(5,276,740)	-
Changes in assumptions	-	-	-	9,356,284	-	6,640,447	-
Benefit payments	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)	(28,706,774)	(28,620,004)
Net change in total pension liability	13,423,745	15,865,369	2,913,421	23,637,703	13,600,403	16,344,968	15,433,585
Total pension liability - beginning	385,886,510	399,310,255	415,175,624	418,089,045	441,726,748	455,327,151	471,672,119
Total pension liability - ending (a)	$ 399,310,255	$ 415,175,624	$ 418,089,045	$ 441,726,748	$ 455,327,151	$ 471,672,119	$ 487,105,704
Plan fiduciary net position:							
Employer pension appropriation	$ 17,323,139	$ 18,508,811	$ 19,329,185	$ 20,605,965	$ 20,798,277	$ 21,372,967	$ 22,075,444
Member contributions	6,950,852	6,706,412	6,851,473	6,781,214	6,843,880	7,219,910	7,713,914
Net investment income (loss)	12,432,925	1,013,895	13,190,264	33,087,835	(5,258,484)	35,297,869	30,834,840
Administrative expenses	(454,640)	(470,218)	(472,754)	(603,253)	(502,442)	(466,756)	(511,240)
Retirement benefits and refunds	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)	(28,706,774)	(28,620,004)
Net increase (decrease) in fiduciary net position	11,599,276	2,081,530	12,805,637	31,976,621	(6,781,042)	34,697,216	31,492,945
Fiduciary net position - beginning of year	168,979,467	180,578,743	182,660,273	195,465,910	227,442,531	220,661,489	255,358,705
Fiduciary net position - end of year (b)	$ 180,578,743	$ 182,660,273	$ 195,465,910	$ 227,442,531	$ 220,661,489	$ 255,358,705	$ 286,851,650
Net pension liability - ending (a)-(b)	$ 218,731,512	$ 232,515,351	$ 222,623,135	$ 214,284,217	$ 234,665,662	$ 216,313,414	$ 200,254,054
Plan fiduciary net position as a percentage of the total pension liability	45.22%	44.00%	46.75%	51.49%	48.46%	54.14%	58.89%
Covered payroll	$ 71,253,430	$ 74,624,810	$ 73,741,641	$ 77,421,566	$ 75,251,536	$ 75,849,815	$ 76,575,806
Net pension liability as a percentage of covered payroll	306.98%	311.58%	301.90%	276.78%	311.84%	285.19%	261.51%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020
Actuarially determined contribution	$ 17,714,868	$ 18,515,120	$ 19,320,161	$ 20,684,393	$ 20,756,572	$ 21,375,578	$ 21,607,083
Contributions in relation to the actuarially determined contribution	(17,714,868)	(18,508,911)	(19,162,742)	(19,958,286)	(20,798,277)	(21,372,967)	(22,075,444)
Settlement of M.V.R.T.A. past service cost	-	-	(166,453)	(647,679)	-	-	-
Contribution deficiency (excess)	$ -	$ 6,209	$ (9,034)	$ 78,428	$ (41,705)	$ 2,611	$ (468,361)
Covered payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536	$ 75,849,815	$ 76,525,906
Contributions as a percentage of covered payroll	24.86%	24.80%	25.99%	26.62%	27.64%	28.18%	28.85%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2020	12.01%
December 31, 2019	16.03%
December 31, 2018	-2.29%
December 31, 2017	17.07%
December 31, 2016	7.53%
December 31, 2015	0.59%
December 31, 2014	7.39%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Systems total pension liability, changes in the Systems net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions:

None.

Changes in Plan Provisions:

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

We have audited the accompanying schedule of employer allocations of the Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2020, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the System Pension Plan as of and for the year ended December 31, 2020, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. 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 schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Lawrence Contributory Retirement System as of and for the year ended December 31, 2020, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Lawrence Contributory Retirement System as of and for the year ended December 31, 2020, and our report thereon, dated June 22, 2021, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System management, the Lawrence Contributory Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

June 22, 2021

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2020

Employer	FY2021 Pension Fund Appropriation	Direct Appropriation E.R.I.	FY2021 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
City of Lawrence	$ 18,925,899	$ 992,790	$ 19,918,689	$ 180,700,344	90.24%
Greater Lawrence Regional Vocational Tech.	1,024,215	44,828	1,069,043	9,697,662	4.84%
Lawrence Housing Authority	973,740	5,504	979,244	8,883,064	4.44%
M.V.R.T.A.	107,259	-	107,259	972,984	0.49%
Total	$ 21,031,113	$ 1,043,122	$ 22,074,235	$ 200,254,054	100.00%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2020

	City of Lawrence	Greater Lawrence Regional Vocational Tech	Lawrence Housing Authority	M.V.R.T.A	Totals
Net Pension Liability					
Beginning net pension liability	$ 193,946,473	$ 10,723,156	$ 10,786,470	$ 857,315	$ 216,313,414
Ending net pension liability	$ 180,700,344	$ 9,697,662	$ 8,883,064	$ 972,984	$ 200,254,054
Deferred Outflows of Resources					
Differences between expected and actual experience	$ 355,643	$ 19,086	$ 17,483	$ 1,915	$ 394,127
Changes of assumptions	6,901,197	370,367	339,257	37,160	7,647,981
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,204,544	947,154	931,423	469,837	3,552,958
Total Deferred Outflows of Resources	$ 8,461,384	$ 1,336,607	$ 1,288,163	$ 508,912	$ 11,595,066
Deferred Inflows of Resources					
Differences between expected and actual experience	$ 6,050,070	$ 324,690	$ 297,416	$ 32,577	$ 6,704,753
Net difference between projected and actual investment earnings on pension plan investments	14,341,305	769,656	705,005	77,221	15,893,187
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,973,941	285,612	1,293,405	-	3,552,958
Total Deferred Inflows of Resources	$ 22,365,316	$ 1,379,958	$ 2,295,826	$ 109,798	$ 26,150,898
Pension Expense					
Proportionate share of plan pension expense	$ 12,126,974	$ 650,819	$ 596,151	$ 65,298	$ 13,439,242
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(337,275)	269,076	(79,212)	147,411	-
Total Employer Pension Expense	$ 11,789,699	$ 919,895	$ 516,939	$ 212,709	$ 13,439,242
Contributions					
Statutory required contribution	$ 19,918,689	$ 1,069,043	$ 979,244	$ 107,259	$ 22,074,235
Contribution in relation to statutory required contribution	(19,919,898)	(1,069,043)	(979,244)	(107,259)	(22,075,444)
Contribution deficiency/(excess)	$ (1,209)	$ -	$ -	$ -	$ (1,209)
Contributions as a percentage of covered payroll	28.67%	30.78%	30.56%	28.14%	28.85%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense					
June 30, 2021	$ (4,993,884)	$ 22,764	$ (309,285)	$ 148,753	$ (5,131,652)
June 30, 2022	(1,576,502)	225,159	(145,602)	155,991	(1,340,954)
June 30, 2023	(5,379,501)	(210,663)	(269,563)	27,111	(5,832,616)
June 30, 2024	(2,168,408)	(37,951)	(78,163)	33,912	(2,250,610)
June 30, 2025	214,363	(42,660)	(205,050)	33,347	-
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ (13,903,932)	$ (43,361)	$ (1,007,663)	$ 399,114	$ (14,555,832)
Discount Rate Sensitivity					
1% decrease (6.25%)	$ 228,529,957	$ 12,264,538	$ 11,234,324	$ 1,230,523	$ 253,259,342
Current discount rate (7.25%)	$ 180,700,344	$ 9,697,662	$ 8,883,064	$ 972,984	$ 200,254,054
1% increase (8.25%)	$ 140,296,476	$ 7,529,304	$ 6,896,847	$ 755,429	$ 155,478,056
Covered Payroll	$ 69,467,122	$ 3,473,215	$ 3,204,342	$ 381,227	$ 76,525,906

See notes to schedule of employer allocations and schedule of pension amounts by employer.

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Lawrence Contributory Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2019, were applied to allocate the System's December 31, 2020, pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP and is separately identified in the System's funding schedule.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions:

None

Changes in Plan Provisions:

None

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2019

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2019

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Financial Section

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the Lawrence Contributory Retirement Systems' 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 an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Lawrence Contributory Retirement System as of December 31, 2019 and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We 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 financial statements, and other knowledge we obtained during our audit of the 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated August 20, 2020, on our consideration of the Lawrence Contributory Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Lawrence Contributory Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 20, 2020

Management's Discussion and Analysis

As management of the Lawrence Contributory Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2019. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by $255.4 million (net position).
- The System's net position increased by $34.7 million for the year ended December 31, 2019.
- Total investment income was $36.5 million; investment expenses were $1.2 million, and net investment income was $35.3 million.
- Total contributions were $29.7 million including $21.4 million from employers, $7.2 million from members, and $1.1 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $29.8 million.
- Administrative expenses were $487,000.
- The Total Pension Liability is $471.7 million as of December 31, 2019 while the Net Pension Liability is $216.3 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 54.14%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities 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 is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent 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 related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's assets exceeded liabilities by $255.4 million at the close of 2019.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the System's net position include investments of $254.1 million, cash of $2.0 million, accounts receivable of $536,000 and other assets of $12,000.

In 2019 the System's contributions were $29.7 million while deductions were $30.3 million which resulted in a current decrease of ($601,000). In 2018 the System's contributions were $28.9 million while deductions were $30.5 million which resulted in a prior year decrease of ($1.5) million. For these two years the System was not able to sustain operations independent of investment income.

The primary change in net position when comparing the 2019 and 2018 results relates to each year's investment performance. Net investment income was $35.3 million 2019, as compared to net investment loss of $5.3 million in 2018. The annual money weighted rate of return was 16.03% and a loss of (2.29%) in 2019 and 2018 respectively. Fluctuations in the System's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2019	2018
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 2,044,230	$ 1,530,539
Investments	254,078,313	220,395,627
Receivables	535,883	524,992
Other assets	11,733	11,332
Total assets	256,670,159	222,462,490
Liabilities:		
Accounts payable	1,311,454	1,801,001
Net Position Restricted for Pension Benefits	$ 255,358,705	$ 220,661,489

	2019	2018
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions	$ 7,219,910	$ 6,843,880
Employer contributions	21,372,967	20,798,277
Other contributions	1,118,622	1,289,969
Total contributions	29,711,499	28,932,126
Net investment income (loss)	35,297,869	(5,258,484)
Total additions	65,009,368	23,673,642
Deductions:		
Administration	486,756	502,442
Retirement benefits, refunds and transfers	29,825,396	29,952,242
Total deductions	30,312,152	30,454,684
Net increase (decrease) in fiduciary net position	34,697,216	(6,781,042)
Fiduciary net position at beginning of year	220,661,489	227,442,531
Fiduciary net position at end of year	$ 255,358,705	$ 220,661,489

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 350 Merrimack Street, Suite 302, Lawrence, MA 01843.

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STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2019

Assets		
Cash and cash equivalents	$	2,044,230
Investments:		
Investments in Pension Reserve Investment Trust		254,078,313
Receivables, net of allowance for uncollectibles:		
Other accounts receivable		535,883
Other assets		11,733
Total Assets		256,670,159
Liabilities		
Warrants payable		1,311,454
Net Position Restricted for Pensions	$	255,358,705

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2019

Additions:		
Contributions:		
Employer pension appropriation	$	21,372,967
Member contributions		7,219,910
Transfers from other systems		470,255
3(8)(c) contributions from other systems		329,014
Workers' compensation settlements		28,260
State COLA reimbursements		256,458
Members' makeup payments and redeposits		25,874
Interest not refunded		8,761
Total contributions		29,711,499
Net investment income:		
Investment income (loss)		36,517,787
Less: investment expense		(1,219,918)
Net investment income (loss)		35,297,869
Total additions		65,009,368
Deductions:		
Administration		486,756
Retirement benefits and refunds		27,657,635
Transfers to other systems		828,803
3(8)(c) transfer to other systems		1,338,958
Total deductions		30,312,152
Net increase (decrease) in fiduciary net position		34,697,216
Fiduciary net position at beginning of year		220,661,489
Fiduciary net position at end of year	$	255,358,705

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Lawrence Contributory Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Lawrence Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees. The System has four participating employers.

The System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement System; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are

deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System adopted Section 22d of Chapter 32 in April of 1989. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Lawrence Contributory Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

The System is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, federal grant reimbursements, and 3(8)c reimbursements due from other systems. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The System did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The System did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the Lawrence City Comptroller, who shall be a member ex-officio, a second member appointed by the Mayor of Lawrence, a third and fourth member who shall be elected by the members in or retired from the service of such System, and a fifth member appointed by the other members.

Chairman	William Bateman	Term Expires:	1/28/2022
Elected Member	Kevin Loughlin	Term Expires:	7/1/2022
Elected Member	Gina Rizzo	Term Expires:	10/15/2021
Appointed Member	Thomas M. Cuddy	Term Expires:	Indefinite
Ex-officio Member	Ramona Ceballos	Term Expires:	Indefinite

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2019, the carrying amount of the System's deposits totaled $2,044,230 and the bank balance totaled $2,248,083. Of the bank balance, $1,244,509 was covered by Federal Depository Insurance, and the remaining amount of $1,003,574, which was the amount held in the PRIT cash fund, was uninsured.

Investments

The System's investments as of December 31, 2019 consist of $254,078,313 in PRIT pooled funds. Subsequent to year end, the market value of the PRIT investment declined by approximately ($9.2 million) (See Note 9).

100% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Administration's annual money-weighted rate of return on pension plan investments was a gain of 16.03%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

PRIT Investments are valued using the net asset value (NAV) method. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2019:

Retirees and beneficiaries currently receiving benefits	922
Inactive members	402
Active members	1,874
Total	3,198

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2019 were as follows:

Total pension liability	$	471,672,119
The pension plan's fiduciary net position		(255,358,705)
The net pension liability	$	216,313,414
The pension plan's fiduciary net position as a percentage of the total pension liability		54.14%

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the following actuarial assumptions, applied to all periods included in the measurement that was updated back to December 31, 2019:

Valuation date	January 1, 2020
Actuarial cost method	Entry Age Normal
Amortization method	3.24% amortization increase.
Remaining amortization period	17 years for the fresh start base.
Asset valuation method	Market value adjusted by accounts payable and receivables.
Projected salary increases	3.75% ultimate rate, plus 4.00% steps for the first five years of service.
Cost of living adjustments	3% of first $12,000 of a member's retirement allowance.
Rates of retirement	Groups 1 and 2; Ages 50 - 70 Group 4; Ages 50 - 65
Rates of disability	Groups 1 and 2; ages 50 - 70 Group 4; Ages 50 - 65
Mortality Rates	RP-2014 adjusted to 2006 and projected generationally using MP-2019. For members retired under an Accidental Disability (job-related), 50% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP-2014 adjusted to 2006 and projected generationally using MP-2019, ages set forward two years.
Investment rate of return/Discount rate	7.25% (7.50% in prior valuation).

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 3.0%. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2020 are summarized in the table on the following page.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equities	13.00%	4.29%
International Equities	13.00%	4.39%
Emerging Markets Equities	5.00%	6.54%
Hedged Equities	8.00%	3.61%
Core Fixed Income	6.00%	0.88%
Short-Term Fixed Income	2.00%	0.59%
20+ Year Treasury Strips	3.00%	0.00%
TIPS	4.00%	20.00%
Value-Added Fixed Income	8.00%	4.20%
Private Equity	13.00%	8.20%
Real Estate	10.00%	3.51%
Timberland	4.00%	4.10%
Portfolio Completion	11.00%	3.22%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.25%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease 6.25%	Current Discount 7.25%	1% Increase 8.25%
Lawrence Retirement System's net pension liability as of December 31, 2019	$ 268,531,484	$ 216,313,414	$ 172,205,025

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2019 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2019.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

In May of 2020, the GASB issued Statement #95, *Postponement of the Effective Dates of Certain Authoritative Guidance*. The objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. This Statement postponed the required implementation of many of the upcoming Statements for one year or longer.

There were no GASB pronouncements required to be implemented in 2019 that impacted the Association's financial statements.

None of the issued GASB statements that are required to be implemented in future years are anticipated to impact the Association's financial statements.

NOTE 9 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 20, 2020, which is the date the financial statements were available to be issued.

The Retirement System carries its investments at fair (market) value in accordance with Generally Accepted Accounting Principles (GAAP). Market value adjustments are recorded monthly. Subsequent to year end, the System's investment of $254,078,313 in the Pension Reserves Investment Trust (PRIT), as determined by PRIT, has declined in value by approximately ($9.2 million). The market value decline is consistent with recent trends in the overall financial securities market.

In accordance with GAAP, the System has not recorded the losses in its financial statements as the impairments were not known as of December 31, 2019. The System has recorded the losses associated with the investment during the year 2020.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Total pension liability:						
Service cost	$ 8,469,461	$ 8,829,413	$ 8,737,363	$ 9,106,701	$ 9,495,621	$ 9,873,516
Interest	29,607,284	30,713,326	31,842,170	32,023,014	32,766,855	33,814,517
Differences between expected and actual experience	-	-	(11,573,571)	1,144,844	-	(5,276,740)
Changes in assumptions	-	-	-	9,356,284	-	6,640,447
Benefit payments	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)	(28,706,774)
Net change in total pension liability	13,423,745	15,865,369	2,913,421	23,637,703	13,600,403	16,344,968
Total pension liability - beginning	385,886,510	399,310,255	415,175,624	418,089,045	441,726,748	455,327,151
Total pension liability - ending (a)	$ 399,310,255	$ 415,175,624	$ 418,089,045	$ 441,726,748	$ 455,327,151	$ 471,672,119
Plan fiduciary net position:						
Employer pension appropriation	$ 17,323,139	$ 18,508,811	$ 19,329,195	$ 20,605,965	$ 20,798,277	$ 21,372,967
Member contributions	6,950,852	6,706,412	6,851,473	6,781,214	6,843,880	7,219,910
Net investment income (loss)	12,432,925	1,013,895	13,190,264	33,087,835	(5,258,484)	35,297,869
Administrative expenses	(454,640)	(470,218)	(472,754)	(503,253)	(502,442)	(486,756)
Retirement benefits and refunds	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)	(28,706,774)
Net increase (decrease) in fiduciary net position	11,599,276	2,081,530	12,805,637	31,976,621	(6,781,042)	34,697,216
Fiduciary net position - beginning of year	168,979,467	180,578,743	182,660,273	195,465,910	227,442,531	220,661,489
Fiduciary net position - end of year (b)	$ 180,578,743	$ 182,660,273	$ 195,465,910	$ 227,442,531	$ 220,661,489	$ 255,358,705
Net pension liability - ending (a)-(b)	$ 218,731,512	$ 232,515,351	$ 222,623,135	$ 214,284,217	$ 234,665,662	$ 216,313,414
Plan fiduciary net position as a percentage of the total pension liability	45.22%	44.00%	46.75%	51.49%	48.46%	54.14%
Covered payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536	$ 75,849,615
Net pension liability as a percentage of covered payroll	306.98%	311.58%	301.90%	276.78%	311.64%	285.19%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019
Actuarially determined contribution...............	$ 17,714,868	$ 18,515,120	$ 19,320,161	$ 20,684,393	$ 20,756,572	$ 21,375,578
Contributions in relation to the actuarially determined contribution.....................	(17,714,868)	(18,508,911)	(19,162,742)	(19,958,286)	(20,798,277)	(21,372,967)
Settlement of M.V.R.T.A. past service cost....	-	-	(166,453)	(647,679)	-	-
Contribution deficiency (excess)............	$ -	$ 6,209	$ (9,034)	$ 78,428	$ (41,705)	$ 2,611
Covered payroll.......................................	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536	$ 75,849,815
Contributions as a percentage of covered payroll......................................	24.86%	24.80%	25.99%	26.62%	27.64%	28.18%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2019	16.03%
December 31, 2018	-2.29%
December 31, 2017	17.07%
December 31, 2016	7.53%
December 31, 2015	0.59%
December 31, 2014	7.39%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Systems total pension liability, changes in the Systems net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

The January 1, 2020 valuation of the System included two changes of assumptions: an update of the mortality assumption and a reduction of the discount rate from 7.50% to 7.25%.

Changes in Plan Provisions

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

Powers & Sullivan, LLC
Certified Public Accountants

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

We have audited the accompanying schedule of employer allocations of the Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2019, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the System Pension Plan as of and for the year ended December 31, 2019, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. 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 schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Lawrence Contributory Retirement System as of and for the year ended December 31, 2019, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Lawrence Contributory Retirement System as of and for the year ended December 31, 2019, and our report thereon, dated August 20, 2020, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System management, the Lawrence Contributory Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers + Sullivan LLC

August 20, 2020

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2019

Employer	FY2020 Pension Fund Appropriation	Direct Appropriation E.R.I.	FY2020 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
City of Lawrence	$ 18,227,366	$ 954,606	$ 19,181,972	$ 193,946,473	89.66%
Greater Lawrence Regional Vocational Tech	1,014,555	43,104	1,057,659	10,723,156	4.96%
Lawrence Housing Authority	1,047,152	5,267	1,052,419	10,786,470	4.99%
M.V.R.T.A.	83,528	-	83,528	857,315	0.40%
Total	$ 20,372,601	$ 1,002,977	$ 21,375,578	$ 216,313,414	100.00%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2019

	City of Lawrence	Greater Lawrence Regional Vocational Tech	Lawrence Housing Authority	M.V.R.T.A	Totals
Net Pension Liability					
Beginning net pension liability	$ 212,650,874	$ 10,908,478	$ 10,242,798	$ 863,513	$ 234,665,663
Ending net pension liability	$ 193,946,473	$ 10,723,156	$ 10,786,470	$ 857,315	$ 216,313,414
Deferred Outflows of Resources					
Differences between expected and actual experience	$ 521,647	$ 28,841	$ 29,012	$ 2,306	$ 581,806
Changes of assumptions	9,224,697	510,027	513,038	40,777	10,288,539
Changes in proportion and differences between employer contributions and proportionate share of contributions	190,631	1,305,922	1,173,693	417,163	3,087,409
Total Deferred Outflows of Resources	$ 9,936,975	$ 1,844,790	$ 1,715,743	$ 460,246	$ 13,957,754
Deferred Inflows of Resources					
Differences between expected and actual experience	$ 8,303,889	$ 459,116	$ 461,827	$ 36,706	$ 9,261,538
Net difference between projected and actual investment earnings on pension plan investments	7,837,608	433,336	435,894	34,645	8,741,483
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,583,480	119,343	384,584	-	3,087,407
Total Deferred Inflows of Resources	$ 18,724,977	$ 1,011,795	$ 1,282,305	$ 71,351	$ 21,090,428
Pension Expense					
Proportionate share of plan pension expense	$ 18,419,589	$ 1,018,407	$ 1,024,418	$ 81,422	$ 20,543,836
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(567,301)	310,986	125,037	131,278	-
Total Employer Pension Expense	$ 17,852,288	$ 1,329,393	$ 1,149,455	$ 212,700	$ 20,543,836
Contributions					
Statutory required contribution	$ 19,181,972	$ 1,057,659	$ 1,052,419	$ 83,528	$ 21,375,578
Contribution in relation to statutory required contribution	(19,179,636)	(1,057,529)	(1,052,285)	(83,517)	(21,372,967)
Contribution deficiency/(excess)	$ 2,336	$ 130	$ 134	$ 11	$ 2,611
Contributions as a percentage of covered payroll	27.88%	30.45%	32.84%	21.91%	28.18%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense					
June 30, 2020	$ (2,798,421)	$ 187,629	$ 952	$ 121,416	$ (2,488,424)
June 30, 2021	(2,948,784)	182,774	(8,507)	120,760	(2,653,757)
June 30, 2022	445,956	389,472	176,004	125,510	1,136,942
June 30, 2023	(3,338,614)	(51,849)	26,933	8,809	(3,354,721)
June 30, 2024	(148,139)	124,969	238,056	12,400	227,286
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ (8,788,002)	$ 832,995	$ 433,438	$ 388,895	$ (7,132,674)
Discount Rate Sensitivity					
1% decrease (6.25%)	$ 240,665,981	$ 13,323,616	$ 13,470,479	$ 1,071,409	$ 268,531,484
Current discount rate (7.25%)	$ 193,946,473	$ 10,723,156	$ 10,786,470	$ 857,315	$ 216,313,414
1% increase (8.25%)	$ 154,482,698	$ 8,526,558	$ 8,519,299	$ 676,471	$ 172,205,025
Covered Payroll	$ 68,791,031	$ 3,473,215	$ 3,204,342	$ 381,227	$ 75,849,815

See notes to schedule of employer allocations and schedule of pension amounts by employer.

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Lawrence Contributory Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2018 were applied to allocate the System's December 31, 2019 pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP and is separately identified in the System's funding schedule.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

The January 1, 2020 valuation of the System included two changes of assumptions: an update of the mortality assumption and a reduction of the discount rate from 7.50% to 7.25%.

Changes in Plan Provisions

None.

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2018

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2018

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Financial Section

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the Lawrence Contributory Retirement Systems' 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 an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Lawrence Contributory Retirement System as of December 31, 2018 and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We 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 financial statements, and other knowledge we obtained during our audit of the 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 8, 2019, on our consideration of the Lawrence Contributory Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Lawrence Contributory Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

October 8, 2019

Management's Discussion and Analysis

As management of the Lawrence Contributory Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2018. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by $220.7 million (net position).
- The System's net position decreased by $6.8 million for the year ended December 31, 2018.
- Total investment loss was $4.1 million; investment expenses were $1.2 million; and net investment loss was $5.3 million.
- Total contributions were $28.9 million including $20.8 million from employers, $6.8 million from members, and $1.3 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $30.0 million.
- Administrative expenses were $502,000.
- The Total Pension Liability is $455.3 million as of December 31, 2018 while the Net Pension Liability is $234.7 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 48.46%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities 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 is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent 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 related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's assets exceeded liabilities by $220.7 million at the close of 2018.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the System's net position include investments of $220.4 million, cash of $1.5 million, accounts receivable of $525,000 and other assets of $11,000.

In 2018 the System's contributions were $28.9 million while deductions were $30.5 million which resulted in a current decrease of ($1.5) million. In 2017 the System's contributions were $28.2 million while deductions were $29.3 million which resulted in a prior year decrease of ($1.1) million. For these two years the System was not able to sustain operations independent of investment income.

The primary change in net position when comparing the 2018 and 2017 results relates to each year's investment performance. Net investment loss was $5.3 million 2018, as compared to net investment income of $33.1 million in 2017. The annual money weighted rate of return was a loss of (2.29%) and 17.06% in 2018 and 2017 respectively. Fluctuations in the System's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2018	2017
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 1,530,539	$ 1,731,759
Investments	220,395,627	226,646,366
Receivables	524,992	387,998
Other assets	11,332	12,938
Total assets	222,462,490	228,779,061
Liabilities:		
Accounts payable	1,801,001	1,336,530
Net Position Restricted for Pension Benefits	$ 220,661,489	$ 227,442,531

	2018	2017
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions	$ 6,843,880	$ 6,781,214
Employer contributions	20,798,277	20,605,965
Other contributions	1,289,969	802,266
Total contributions	28,932,126	28,189,445
Net investment income (loss)	(5,258,484)	33,087,835
Total additions	23,673,642	61,277,280
Deductions:		
Administration	502,442	503,253
Retirement benefits, refunds and transfers	29,952,242	28,797,406
Total deductions	30,454,684	29,300,659
Net increase (decrease) in fiduciary net position	(6,781,042)	31,976,621
Fiduciary net position at beginning of year	227,442,531	195,465,910
Fiduciary net position at end of year	$ 220,661,489	$ 227,442,531

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 350 Merrimack Street, Suite 302, Lawrence, MA 01843.

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STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2018

Assets		
Cash and cash equivalents	$	1,530,539
Investments:		
Investments in Pension Reserve Investment Trust		220,395,627
Receivables, net of allowance for uncollectibles:		
Other accounts receivable		524,992
Other assets		11,332
Total Assets		222,462,490
Liabilities		
Warrants payable		1,801,001
Net Position Restricted for Pensions	$	220,661,489

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2018

Additions:		
Contributions:		
Employer pension appropriation	$	20,798,277
Member contributions		6,843,880
Transfers from other systems		538,085
3(8)(c) contributions from other systems		288,733
Workers' compensation settlements		21,000
State COLA reimbursements		440,391
Interest not refunded		1,760
Total contributions		28,932,126
Net investment income:		
Investment income (loss)		(4,060,145)
Less: investment expense		(1,198,339)
Net investment income (loss)		(5,258,484)
Total additions		23,673,642
Deductions:		
Administration		502,442
Retirement benefits and refunds		26,778,061
Transfers to other systems		1,575,874
3(8)(c) transfer to other systems		1,598,307
Total deductions		30,454,684
Net increase (decrease) in fiduciary net position		(6,781,042)
Fiduciary net position at beginning of year		227,442,531
Fiduciary net position at end of year	$	220,661,489

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Lawrence Contributory Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Lawrence Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees. The System has four participating employers.

The System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement System; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System adopted Section 22d of Chapter 32 in April of 1989. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Lawrence Contributory Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

The System is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, federal grant reimbursements, and 3(8)c reimbursements due from other systems. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The System did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The System did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the Lawrence City Comptroller, who shall be a member ex-officio, a second member appointed by the Mayor of Lawrence, a third and fourth member who shall be elected by the members in or retired from the service of such System, and a fifth member appointed by the other members.

Chairman	William Bateman	Term Expires:	1/28/2022
Elected Member	Kevin Loughlin	Term Expires:	7/1/2019
Elected Member	Gina Rizzo	Term Expires:	10/15/2021
Appointed Member	Thomas M. Cuddy	Term Expires:	Indefinate
Ex-officio Member	Ramona Ceballos	Term Expires:	Indefinate

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2018, the carrying amount of the System's deposits totaled $1,530,539 and the bank balance totaled $1,642,068, all of which was covered by Federal Depository Insurance.

Investments

The System's investments as of December 31, 2018 consist of $220,395,627 in PRIT pooled funds.

100% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Administration's annual money-weighted rate of return on pension plan investments was a loss of (2.29%). The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

PRIT Investments are valued using the net asset value (NAV) method. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2018:

Retirees and beneficiaries currently receiving benefits	904
Inactive members	444
Active members	1,737
Total	3,085

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2018 were as follows:

Total pension liability	$	455,327,151
The pension plan's fiduciary net position		(220,661,489)
The net pension liability	$	234,665,662
The pension plan's fiduciary net position as a percentage of the total pension liability		48.46%

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement that was updated back to December 31, 2018:

Valuation date	January 1, 2018
Actuarial cost method	Entry Age Normal
Amortization method	3.24% amortization increase
Remaining amortization period	17 years for the fresh start base
Asset valuation method	Market value adjusted by accounts payable and receivables.
Projected salary increases	3.75% ultimate rate, plus 4.00% steps for the first five years of service.
Cost of living adjustments	3% of first $12,000 of a member's retirement allowance.
Rates of retirement	Groups 1 and 2; Ages 50 - 70. Group 4; Ages 50 - 65.
Rates of disability	Groups 1 and 2, ages 50 - 70. Group 4, ages 50 - 65.
Mortality Rates	RP-2014 adjusted to 2006 and projected generationally using MP-2016. For members retired under and Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP-2014 adjusted to 2006 and projected generationally using MP-2016, ages set forward two years. (Prior valuation used RP-2000 mortality table projected with generational mortality, scale BB, and a base year of 2000).
Investment rate of return/Discount rate	7.50% (7.75% in prior valuation).

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 3.0%. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2018 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equities	13.00%	5.25%
International Equities	13.00%	5.43%
Emerging Markets Equities	5.00%	6.90%
Hedged Equities	8.00%	4.54%
Core Fixed Income	6.00%	2.07%
Short-Term Fixed Income	2.00%	1.72%
20+ Year Treasury Strips	3.00%	1.22%
TIPS	4.00%	1.71%
Value-Added Fixed Income	8.00%	5.21%
Private Equity	13.00%	8.70%
Real Estate	10.00%	4.09%
Timberland	4.00%	4.65%
Portfolio Completion	11.00%	4.41%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.50%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
Lawrence Retirement System's net pension liability as of December 31, 2018	$ 284,626,809	$ 234,665,663	$ 191,814,511

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2018 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2018.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2018, the following GASB pronouncements were implemented:

- The GASB issued Statement #85, Omnibus 2017. The basic financial statements and related notes were updated to be in compliance with this pronouncement.

- The GASB issued Statement #86, Certain Debt Extinguishment Issues. The basic financial statements and related notes were updated to be in compliance with this pronouncement.

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #83, Certain Asset Retirement Obligations, which is required to be implemented in 2019.

- The GASB issued Statement #84, Fiduciary Activities, which is required to be implemented in 2020.

- The GASB issued Statement #87, Leases, which is required to be implemented in 2021.

- The GASB issued Statement #88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, which is required to be implemented in 2019.

- The GASB issued Statement #89, Accounting for Interest Cost Incurred Before the End of a Construction Period, which is required to be implemented in 2020.

- The GASB issued Statement #90, Majority Equity Interest – An Amendment of GASB Statements No. 14 and No. 61, which is required to be implemented in 2019.

Management is currently assessing the impact the implementation of these pronouncements will have on the basic financial statements.

NOTE 10 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through October 8, 2019, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
Total pension liability:					
Service cost	$ 8,469,461	$ 8,829,413	$ 8,737,363	$ 9,108,701	$ 9,495,821
Interest	29,607,284	30,713,326	31,842,170	32,023,014	32,766,855
Changes in benefit terms	-	-	-	-	-
Differences between expected and actual experience	-	-	(11,573,571)	1,144,844	-
Changes in assumptions	-	-	-	9,356,284	-
Benefit payments	(24,663,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)
Net change in total pension liability	13,423,745	15,865,369	2,913,421	23,637,703	13,600,403
Total pension liability - beginning	385,886,510	399,310,255	415,175,624	418,089,045	441,726,748
Total pension liability - ending (a)	$ 399,310,255	$ 415,175,624	$ 418,089,045	$ 441,726,748	$ 455,327,151
Plan fiduciary net position:					
Employer pension appropriation	$ 17,323,139	$ 18,508,811	$ 19,329,195	$ 20,605,965	$ 20,798,277
Member contributions	6,950,852	6,706,412	6,851,473	6,781,214	6,843,880
Net investment income (loss)	12,432,925	1,013,895	13,190,264	33,087,835	(5,258,484)
Administrative expenses	(454,640)	(470,218)	(472,754)	(503,253)	(502,442)
Retirement benefits and refunds	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)
Net increase (decrease) in fiduciary net position	11,599,276	2,081,530	12,805,637	31,976,621	(6,781,042)
Fiduciary net position - beginning of year	168,979,467	180,578,743	182,660,273	195,465,910	227,442,531
Fiduciary net position - end of year (b)	$ 180,578,743	$ 182,660,273	$ 195,465,910	$ 227,442,531	$ 220,661,489
Net pension liability - ending (a)-(b)	$ 218,731,512	$ 232,515,351	$ 222,623,135	$ 214,284,217	$ 234,665,662
Plan fiduciary net position as a percentage of the total pension liability	45.22%	44.00%	46.75%	51.49%	48.46%
Covered payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536
Net pension liability as a percentage of covered payroll	306.98%	311.58%	301.90%	276.78%	311.84%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
Actuarially determined contribution	$ 17,714,868	$ 18,515,120	$ 19,320,161	$ 20,684,393	$ 20,756,572
Contributions in relation to the actuarially determined contribution	(17,714,868)	(18,508,911)	(19,162,742)	(19,958,286)	(20,798,277)
Settlement of M.V.R.T.A. past service cost	-	-	(166,453)	(647,679)	-
Contribution deficiency (excess)	$ -	$ 6,209	$ (9,034)	$ 78,428	$ (41,705)
Covered payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536
Contributions as a percentage of covered payroll	24.86%	24.80%	25.99%	26.62%	27.64%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2018	-2.29%
December 31, 2017	17.07%
December 31, 2016	7.53%
December 31, 2015	0.59%
December 31, 2014	7.39%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Systems total pension liability, changes in the Systems net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

None.

Changes in Plan Provisions

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

We have audited the accompanying schedule of employer allocations of the Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2018, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the System Pension Plan as of and for the year ended December 31, 2018, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. 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 schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Lawrence Contributory Retirement System as of and for the year ended December 31, 2018, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Lawrence Contributory Retirement System as of and for the year ended December 31, 2018, and our report thereon, dated October 8, 2019, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System management, the Lawrence Contributory Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

October 8, 2019

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2018

Employer	FY2019 Pension Fund Appropriation	Direct Appropriation E.R.I.	FY2019 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
City of Lawrence	$ 17,898,321	$ 925,969	$ 18,824,290	$ 212,650,874	90.62%
Greater Lawrence Regional Vocational Tech	921,921	41,810	963,731	10,908,478	4.65%
Lawrence Housing Authority	888,288	5,085	893,373	10,242,798	4.36%
M.V.R.T.A.	75,178	-	75,178	863,513	0.37%
Total	$ 19,783,708	$ 972,864	$ 20,756,572	$ 234,665,663	100.00%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	City of Lawrence	Greater Lawrence Regional Vocational Tech	Lawrence Housing Authority	M.V.R.T.A	Totals
Net Pension Liability					
Beginning net pension liability	$ 193,980,472	$ 10,040,042	$ 9,540,920	$ 722,785	$ 214,284,219
Ending net pension liability	$ 212,650,874	$ 10,908,478	$ 10,242,798	$ 863,513	$ 234,665,663
Deferred Outflows of Resources					
Differences between expected and actual experience	$ 697,297	$ 35,770	$ 33,587	$ 2,832	$ 769,486
Net difference between projected and actual investment earnings on pension plan investments	8,947,587	458,990	430,980	36,334	9,873,891
Changes of assumptions	5,698,690	292,329	274,490	23,141	6,288,650
Changes in proportion and differences between employer contributions and proportionate share of contributions	248,532	973,554	35,226	486,040	1,743,352
Total Deferred Outflows of Resources	$ 15,592,106	$ 1,760,643	$ 774,283	$ 548,347	$ 18,675,379
Deferred Inflows of Resources					
Differences between expected and actual experience	$ 5,927,895	$ 304,087	$ 285,530	$ 24,071	$ 6,541,583
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,075,160	166,375	501,817	-	1,743,352
Total Deferred Inflows of Resources	$ 7,003,055	$ 470,462	$ 787,347	$ 24,071	$ 8,284,935
Pension Expense					
Proportionate share of plan pension expense	$ 20,541,181	$ 1,053,712	$ 989,412	$ 83,410	$ 22,667,715
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(211,714)	195,922	(105,085)	120,877	-
Total Employer Pension Expense	$ 20,329,467	$ 1,249,634	$ 884,327	$ 204,287	$ 22,667,715
Contributions					
Statutory required contribution	$ 18,824,290	$ 963,731	$ 893,373	$ 75,178	$ 20,756,572
Contribution in relation to statutory required contribution	(18,862,020)	(965,674)	(895,246)	(75,336)	(20,798,276)
Contribution deficiency/(excess)	$ (37,730)	$ (1,943)	$ (1,873)	$ (158)	$ (41,704)
Contributions as a percentage of covered payroll	27.61%	26.98%	27.84%	26.51%	27.58%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense					
June 30, 2019	$ 3,089,446	$ 365,263	$ 53,922	$ 134,283	$ 3,642,914
June 30, 2020	729,314	244,194	(59,759)	124,699	1,038,448
June 30, 2021	577,365	239,849	(68,190)	124,091	873,115
June 30, 2022	4,008,447	434,845	92,756	127,767	4,663,815
June 30, 2023	180,815	7,393	(28,393)	12,337	172,152
Thereafter	3,664	(1,363)	(3,400)	1,099	-
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 8,589,051	$ 1,290,181	$ (13,064)	$ 524,276	$ 10,390,444
Discount Rate Sensitivity					
1% decrease (6.5%)	$ 257,850,750	$ 13,236,668	$ 12,486,055	$ 1,053,336	$ 284,626,809
Current discount rate (7.5%)	$ 212,650,874	$ 10,908,478	$ 10,242,798	$ 863,513	$ 234,665,663
1% increase (8.5%)	$ 173,883,437	$ 8,911,614	$ 8,318,781	$ 700,679	$ 191,814,511
Covered Payroll	$ 68,188,086	$ 3,571,409	$ 3,208,439	$ 283,601	$ 75,251,535

See notes to schedule of employer allocations and schedule of pension amounts by employer.

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Lawrence Contributory Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2016 were applied to allocate the System's December 31, 2018 pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP and is separately identified in the System's funding schedule.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

None

Changes in Plan Provisions

None

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2017

LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2017

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Financial Section

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2017, and the related notes to the financial statements, which collectively comprise the Lawrence Contributory Retirement Systems' 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 an opinion on these financial statements based on our audit. The financial statements of Lawrence Retirement System, as of December 31, 2016, were audited by other auditors whose report dated June 29, 2017, expressed an unqualified opinion on those statements. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Lawrence Contributory Retirement System as of December 31, 2017 and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We 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 financial statements, and other knowledge we obtained during our audit of the 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated August 1, 2018, on our consideration of the Lawrence Contributory Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Lawrence Contributory Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

August 1, 2018

Management's Discussion and Analysis

As management of the Lawrence Contributory Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2017. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by $227.4 million (net position).
- The System's net position increased by $32 million for the year ended December 31, 2017.
- Total investment income was $34.2 million; investment expenses were $1.1 million, and net investment income was $33.1 million.
- Total contributions were $28.2 million including $20.6 million from employers, $6.8 million from members, and $802,000 from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $28.8 million.
- Administrative expenses were $503,000.
- The Total Pension Liability is $441.7 million as of December 31, 2017 while the Net Pension Liability is $214.3 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 51.49%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities 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 is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent 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 related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's net position exceeded liabilities by $227.4 million at the close of 2017.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the System's net position include investments of $226.6 million, cash of $1.7 million and accounts receivable of $388,000.

In 2017 the System's contributions were $28.2 million while deductions were $29.3 million which resulted in a current decrease of ($1.1) million. In 2016 the System's contributions were $27.0 million while deductions were $27.4 million which resulted in a prior year decrease of ($0.4) million. For these two years the System was not able to sustain operations independent of investment income.

The primary change in net position when comparing the 2017 and 2016 results relates to each year's investment performance. Net investment income was $33.1 million and $13.2 million in 2017 and 2016 respectively. The annual money weighted rate of return was 17.06% and 7.53% in 2017 and 2016 respectively. Fluctuations in the System's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2017	2016
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 1,731,759	$ 1,448,046
Investments	226,646,366	194,964,599
Receivables	387,998	319,679
Other assets	12,938	8,042
Total assets	228,779,061	196,740,366
Liabilities:		
Accounts payable	1,336,530	1,274,456
Net Position Restricted for Pension Benefits	$ 227,442,531	$ 195,465,910

	2017	2016
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions	$ 6,781,214	$ 6,851,473
Employer contributions	20,605,965	19,329,196
Other contributions	802,266	809,178
Total contributions	28,189,445	26,989,847
Net investment income (loss)	33,087,835	13,189,373
Total additions	61,277,280	40,179,220
Deductions:		
Administration	503,253	472,754
Retirement benefits, refunds and transfers	28,797,406	26,900,829
Total deductions	29,300,659	27,373,583
Net increase (decrease) in fiduciary net position	31,976,621	12,805,637
Fiduciary net position at beginning of year	195,465,910	182,660,273
Fiduciary net position at end of year	$ 227,442,531	$ 195,465,910

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 350 Merrimack Street, Suite 302, Lawrence, MA 01843.

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2017

Assets		
Cash and cash equivalents	$	1,731,759
Investments:		
Investments in Pension Reserve Investment Trust		226,646,366
Receivables, net of allowance for uncollectibles:		
Other accounts receivable		387,998
Other assets		12,938
Total Assets		228,779,061
Liabilities		
Warrants payable		1,336,530
Net Position Restricted for Pensions	$	227,442,531

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2017

Additions:		
Contributions:		
Employer pension appropriation	$	20,605,965
Member contributions		6,726,421
Transfers from other systems		360,296
3(8)(c) contributions from other systems		266,382
Workers' compensation settlements		7,000
State COLA reimbursements		161,410
Members' makeup payments and redeposits		54,793
Interest not refunded		7,178
Total contributions		28,189,445
Net investment income:		
Investment income (loss)		34,189,107
Less: investment expense		(1,101,272)
Net investment income (loss)		33,087,835
Total additions		61,277,280
Deductions:		
Administration		503,253
Retirement benefits and refunds		25,958,887
Transfers to other systems		1,520,601
3(8)(c) transfer to other systems		1,317,918
Total deductions		29,300,659
Net increase (decrease) in fiduciary net position		31,976,621
Fiduciary net position at beginning of year		195,465,910
Fiduciary net position at end of year	$	227,442,531

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Lawrence Contributory Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Lawrence Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees. The System has four participating employers.

The System is governed by a five member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement System; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5 and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System adopted Section 22d of Chapter 32 in April of 1989. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the System, are now paid from investment income.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Lawrence Contributory Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

The System is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, federal grant reimbursements, and 3(8)c reimbursements due from other systems. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The System did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources,* represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The System did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the Lawrence City Comptroller, who shall be a member ex-officio, a second member appointed by the Mayor of Lawrence, a third and fourth member who shall be elected by the members in or retired from the service of such System, and a fifth member appointed by the other members.

Chairman	William Bateman	Term Expires:	1/29/2019
Elected Member	Kevin Loughlin	Term Expires:	7/1/2019
Elected Member	Gina Rizzo	Term Expires:	10/14/2018
Appointed Member	Thomas M. Cuddy	Term Expires:	Indefinate
Ex-officio Member	Ramona Ceballos	Term Expires:	Indefinate

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2017, the carrying amount of the System's deposits totaled $1,731,759 and the bank balance totaled $1,831,183, all of which was covered by Federal Depository Insurance.

Investments

The System's investments as of December 31, 2017 consist of $226,646,366 in PRIT pooled funds.

100% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Administration's annual money-weighted rate of return on pension plan investments was 17.07%. The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

PRIT Investments are valued using the net asset value (NAV) method. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2017:

Retirees and beneficiaries currently receiving benefits	911
Inactive members	530
Active members	1,580
Total	3,021

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2017 were as follows:

Total pension liability	$	441,726,748
The pension plan's fiduciary net position		(227,442,531)
The net pension liability	$	214,284,217
The pension plan's fiduciary net position as a percentage of the total pension liability		51.49%

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement that was updated back to December 31, 2017:

Valuation date	January 1, 2018
Actuarial cost method	Entry Age Normal.
Amortization method	3.24% amortization increase.
Remaining amortization period	17 years for the fresh start base.
Asset valuation method	Market value adjusted by accounts payable and receivables.
Projected salary increases	3.75% ultimate rate, plus 4.00% steps for the first five years of service.
Cost of living adjustments	3% of first $12,000 of a member's retirement allowance.
Rates of retirement	Groups 1 and 2; Ages 50 - 70 Group 4; Ages 50 - 65.
Rates of disability	Groups 1 and 2, ages 50 - 70. Group 4, ages 50 - 65.
Mortality Rates	RP-2014 adjusted to 2006 and projected generationally using MP-2016. For members retired under and Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP-2014 adjusted to 2006 and projected generationally using MP-2016, ages set forward two years. (Prior valuation used RP-2000 mortality table projected with generational mortality, scale BB, and a base year of 2000).
Investment rate of return/Discount rate	7.50% (7.75% in prior valuation).

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 3.0%. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2018 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equities	17.50%	4.47%
International Equities	15.50%	4.66%
Emerging Markets Equities	6.00%	6.12%
Core Fixed Income	5.00%	0.73%
Value-Added Fixed Income	10.00%	3.50%
Private Equity	12.00%	6.31%
Real Estate	10.00%	3.59%
Timberland	4.00%	3.16%
20 + year Treasury Strips	2.00%	0.49%
TIPS	5.00%	0.73%
Portfolio Completion	13.00%	3.44%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate: The following presents the net position liability, calculated using the discount rate of 7.5%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current rate:

	1% Decrease (6.5%)	Current Discount (7.5%)	1% Increase (8.5%)
Lawrence Retirement System's net pension liability as of December 31, 2017	$ 263,310,174	$ 214,284,219	$ 172,887,763

Contributions. Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2017 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2017.

NOTE 8 – MERRIMACK VALLEY REGIONAL TRANSPORTATION AUTHORITY SETTLEMENT

In June 2016 an ongoing dispute between the Merrimack Valley Regional Transportation Authority (MVRTA) and the Lawrence Retirement Board was settled by the Contributory Retirement Appeals Board (CRAB). The CRAB decision called for the MVRTA to pay for past service cost earned prior to July 1, 2008 by certain MVRTA employees. A liability of $764,769, as of July 1, 2016, was calculated by an actuary. The parties initially agreed to a 20 year repayment schedule that called for a one-time payment of $100,000 followed by annual payments, including interest, of $66,453 through 2036. In calendar 2016 MVRTA paid the $100,000 along with the first installment of $66,453. During calendar 2017 the parties agreed to one final payment to satisfy the remaining liability in 2017. PERAC's actuary calculated the remaining liability, as of July 1, 2017, to be $647,679 which was paid by the MVRTA in July 2017.

The System has reported $647,679 and $166,453 as employer pension contributions in the statement of changes in fiduciary net position for the years ended December 31, 2017 and 2016, respectively.

NOTE 9 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2017, the following GASB pronouncements were implemented:

- GASB Statement #82, Pension Issues – an amendment of GASB Statements #67, #68, and #73. The basic financial statements and related notes were updated to be in compliance with this pronouncement.

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #83, Certain Asset Retirement Obligations, which is required to be implemented in 2019.
- The GASB issued Statement #84, Fiduciary Activities, which is required to be implemented in 2020.
- The GASB issued Statement #85, Omnibus 2017, which is required to be implemented in 2018.
- The GASB issued Statement #86, Certain Debt Extinguishment Issues, which is required to be implemented in 2018.
- The GASB issued Statement #87, Leases, which is required to be implemented in 2021.

- The GASB issued Statement #88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, which is require to be implemented in 2019.

Management is currently assessing the impact the implementation of these pronouncements will have on the basic financial statements.

NOTE 10 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through August 1, 2018, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017
Total pension liability:				
Service cost	$ 8,469,461	$ 8,829,413	$ 8,737,363	$ 9,108,701
Interest	29,607,284	30,713,326	31,842,170	32,023,014
Changes in benefit terms	-	-	-	-
Differences between expected and actual experience	-	-	(11,573,571)	1,144,844
Changes in assumptions	-	-	-	9,356,284
Benefit payments	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)
Net change in total pension liability	13,423,745	15,865,369	2,913,421	23,637,703
Total pension liability - beginning	385,886,510	399,310,255	415,175,624	418,089,045
Total pension liability - ending (a)	$ 399,310,255	$ 415,175,624	$ 418,089,045	$ 441,726,748
Plan fiduciary net position:				
Employer pension appropriation	$ 17,323,139	$ 18,508,811	$ 19,329,195	$ 20,605,965
Member contributions	6,950,852	6,706,412	6,851,473	6,781,214
Net investment income (loss)	12,432,925	1,013,895	13,190,264	33,087,835
Administrative expenses	(454,640)	(470,218)	(472,754)	(503,253)
Retirement benefits and refunds	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)
Net increase (decrease) in fiduciary net position	11,599,276	2,081,530	12,805,637	31,976,621
Fiduciary net position - beginning of year	168,979,467	180,578,743	182,660,273	195,465,910
Fiduciary net position - end of year (b)	$ 180,578,743	$ 182,660,273	$ 195,465,910	$ 227,442,531
Net pension liability - ending (a)-(b)	$ 218,731,512	$ 232,515,351	$ 222,623,135	$ 214,284,217
Plan fiduciary net position as a percentage of the total pension liability	45.22%	44.00%	46.75%	51.49%
Covered payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566
Net pension liability as a percentage of covered payroll	306.98%	311.58%	301.90%	276.78%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017
Actuarially determined contribution................	$ 17,714,868	$ 18,515,120	$ 19,320,161	$ 20,684,393
Contributions in relation to the actuarially determined contribution............................	(17,714,868)	(18,508,911)	(19,162,742)	(19,958,286)
Settlement of M.V.R.T.A. past service cost.....	-	-	(166,453)	(647,679)
Contribution deficiency (excess).............	$ -	$ 6,209	$ (9,034)	$ 78,428
Covered payroll..	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566
Contributions as a percentage of covered payroll..................................	24.86%	24.80%	25.99%	26.62%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2017	17.07%
December 31, 2016	7.53%
December 31, 2015	0.59%
December 31, 2014	7.39%

Note: this schedule is intended to present information for 10 years. Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Systems total pension liability, changes in the Systems net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2018 actuarial valuation:

- The discount rate assumption was reduced to 7.50%; previously 7.75%.
- The mortality assumption was changed to the RP-2014 mortality table adjusted to 2006 and projected generationally using MP-2016.

Changes in Plan Provisions

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

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Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

We have audited the accompanying schedule of employer allocations of the Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2017, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the System Pension Plan as of and for the year ended December 31, 2017, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules 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 the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. The schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer of Lawrence Retirement System, as of December 31, 2016, were audited by other auditors whose report dated June 29, 2017, expressed an unqualified opinion on those statements. 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 schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer 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 schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

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, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Lawrence Contributory Retirement System as of and for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Lawrence Contributory Retirement System as of and for the year ended December 31, 2017, and our report thereon, dated August 1, 2018, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System management, the Lawrence Contributory Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

August 1, 2018

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	FY2018 Pension Fund Appropriation	Direct Appropriation E.R.I.	FY2018 Total Appropriation	Share of Net Pension Liability	Percent of Total Net Pension Liability
City of Lawrence	$ 17,252,557	$ 896,107	$ 18,148,664	$ 193,980,472	90.52%
Greater Lawrence Regional Vocational Tech	897,477	40,462	937,939	10,040,042	4.69%
Lawrence Housing Authority	878,381	4,897	883,278	9,540,920	4.45%
M.V.R.T.A.	66,833	66,453	133,286	722,785	0.34%
Total	$ 19,095,248	$ 1,007,919	$ 20,103,167	$ 214,284,219	100.00%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2017

	City of Lawrence	Greater Lawrence Regional Vocational Tech	Lawrence Housing Authority	M.V.R.T.A.	Totals
Net Pension Liability					
Beginning net pension liability	$ 201,674,657	$ 9,610,040	$ 9,990,060	$ 1,348,379	$ 222,623,136
Ending net pension liability	$ 193,980,472	$ 10,040,042	$ 9,540,920	$ 722,785	$ 214,284,219
Deferred Outflows of Resources					
Differences between expected and actual experience	$ 866,472	$ 44,847	$ 42,617	$ 3,229	$ 957,165
Changes of assumptions	7,081,276	366,513	348,292	26,385	7,822,466
Changes in proportion and differences between employer contributions and proportionate share of contributions	82,904	1,216,508	47,374	539,893	1,886,679
Total Deferred Outflows of Resources	$ 8,030,652	$ 1,627,868	$ 438,283	$ 569,507	$ 10,666,310
Deferred Inflows of Resources					
Differences between expected and actual experience	$ 7,440,159	$ 385,088	$ 365,944	$ 27,723	$ 8,218,914
Net difference between projected and actual investment earnings on pension plan investments	7,859,621	406,798	386,575	29,285	8,682,279
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,344,776	130,277	411,625	-	1,886,678
Total Deferred Inflows of Resources	$ 16,644,556	$ 922,163	$ 1,164,144	$ 57,008	$ 18,787,871
Pension Expense					
Proportionate share of plan pension expense	$ 17,310,778	$ 896,166	$ 851,327	$ 118,139	$ 19,176,410
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(246,359)	209,550	(71,082)	109,891	-
Total Employer Pension Expense	$ 17,062,419	$ 1,105,716	$ 780,245	$ 228,030	$ 19,176,410
Contributions					
Statutory required contribution	$ 18,148,664	$ 937,939	$ 883,278	$ 714,512	$ 20,684,393
Contribution in relation to statutory required contribution	(18,077,804)	(934,253)	(879,670)	(66,559)	(19,958,286)
Settlement of M.V.R.T.A. past service cost	-	-	-	(647,679)	(647,679)
Contribution deficiency/(excess)	$ 70,860	$ 3,686	$ 3,608	$ 274	$ 78,428
Contributions as a percentage of covered payroll	25.74%	27.91%	26.70%	293.87%	26.72%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense					
June 30, 2018	$ (865,968)	$ 176,549	$ (102,442)	$ 107,514	$ (704,345)
June 30, 2019	(990,705)	171,645	(107,101)	107,162	(808,999)
June 30, 2020	(3,336,394)	49,616	(223,065)	98,377	(3,413,466)
June 30, 2021	(3,490,187)	45,210	(231,641)	97,819	(3,578,799)
June 30, 2022	(62,661)	241,603	(67,374)	100,331	211,899
Thereafter	144,009	21,082	5,762	1,296	172,149
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ (8,613,904)	$ 705,705	$ (725,861)	$ 512,499	$ (8,121,561)
Discount Rate Sensitivity					
1% decrease (6.5%)	$ 238,275,423	$ 12,344,261	$ 11,796,114	$ 894,376	$ 263,310,174
Current discount rate (7.5%)	$ 193,980,472	$ 10,040,042	$ 9,540,920	$ 722,785	$ 214,284,219
1% increase (8.5%)	$ 156,578,775	$ 8,094,408	$ 7,636,683	$ 577,897	$ 172,887,763
Covered Payroll	$ 70,509,618	$ 3,360,530	$ 3,308,277	$ 243,141	$ 77,421,566

See notes to schedule of employer allocations and schedule of pension amounts by employer

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Lawrence Contributory Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2015 were applied to allocate the System's December 31, 2017 pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP, and is separately identified in the System's funding schedule.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2018 actuarial valuation:

- The discount rate assumption was reduced to 7.50%; previously 7.75%.
- The mortality assumption was changed to the RP-2014 mortality table adjusted to 2006 and projected generationally using MP-2016.

Changes in Plan Provisions

None.

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