Leominster
Retirement System
Audit Report
Jan. 1, 2018 - Dec. 31, 2022

PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION
COMMONWEALTH OF MASSACHUSETTS

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PERAC

COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., *Chair* WILLIAM T. KEEFE, *Executive Director*

Auditor DIANA DIZOGLIO | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES J. GUIDO | RICHARD MACKINNON, JR. | JENNIFER F. SULLIVAN, ESQ.

March 6, 2025

The Public Employee Retirement Administration Commission (PERAC) has completed a review of the audits of the Leominster Retirement System conducted by the firms of Marcum LLP (2022) and Melanson (2018-2021) Certified Public Accountants. Marcum LLP and Melanson conducted these audits in accordance with auditing standards generally accepted in the United States of America (GAAS). The audits covered the period from January 1, 2018 to December 31, 2022. Melanson was subsequently acquired by the firm of Marcum LLP, which was then acquired by the firm of CBIZ, Inc.

We conducted an inspection of the work papers prepared by Marcum LLP and Melanson. 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 Marcum LLP and Melanson CPAs 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 investment balances are accurately stated, 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 Leominster Retirement Board in the above areas. Specifically, we reviewed the minutes of the Board meetings for compliance with fiduciary oversight and verified cash and investment balances. 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.

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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 Marcum LLP and Melanson, CPAs 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, 2022, December 31, 2021, December 31, 2020, December 31, 2019, and December 31, 2018.

In closing, I wish to acknowledge the work of Marcum LLP and Melanson, CPAs who conducted these examinations, and the PERAC examiners who conducted limited procedures to supplement the field work and express my appreciation to the Leominster Retirement Board and staff for their courtesy and cooperation.

Sincerely,

William T. Keefe
Executive Director

EXPLANATION OF FINDING AND RECOMMENDATION

New Retirees' Allowance Calculations:

We tested the retirement allowance calculations of 19 new retirees during the audit period and found four members whose allowances need to be recalculated. All dollar amounts below are approximate.

- One member was missing a week of pay when calculating the average compensation for retirement. As a result, average compensation was understated $600 leading to the benefit being underpaid by $450 per year.
- One member who was receiving workers compensation did not have the proper salary adjustment applied. As a result, average compensation was understated $5,500. We also noted that the member was eligible to receive a $300 annual veterans' benefit that they were not receiving. As a result of these two items, the benefit is underpaid by $3,500 per year.
- One member had an extra week of pay included in determining the 3-year average compensation. As a result, average compensation was overstated $600 and the allowance is being overpaid by $400.
- One member had Quinn Bill monies included in the 3-year average compensation that was outside the three-year service period. As a result, average compensation was overstated $850 and the allowance is overpaid by $350.

In addition to the above, we noted that a member's ex-spouse being paid under a Domestic Relations Order (DRO) was receiving extra money due to an error calculating the COLA.

Recommendation: The Retirement Board should recalculate the above noted retirement allowances. When calculating any amounts owed on allowances, interest must be applied. Retirees who have DROs should be reviewed to make sure no COLAs beyond the maximum amount have been paid out.

Board Response:

Please note that we agree with all of the findings as stated in the report, and we have addressed each of them as discussed at the exit interview.

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, 2022	
	MARKET VALUE	PERCENTAGE OF TOTAL ASSETS
Cash	$693,059	0.3%
PRIT Core Fund	257,586,803	99.7%
Grand Total	$258,279,862	100.0%

For the year ending December 31, 2022, the rate of return for the investments of the Leominster Retirement System was -10.85%. For the ten-year period ending December 31, 2022, the rate of return for the investments of the Leominster Retirement System averaged 8.74%. For the 38-year period ending December 31, 2022, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Leominster Retirement System was 8.48%.

The composite rate of return for all retirement systems for the year ending December 31, 2022 was (10.84%). For the ten-year period ending December 31, 2022, the composite rate of return for the investments of all retirement systems averaged 8.18%. For the 38-year period ending December 31, 2022, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 8.99%.

ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of the 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:	Jennifer Reddington		
Appointed Member	David R. LaPlante, Chairperson	Term Expires	11/06/2026
Elected Member:	Shayne Newton	Term Expires:	12/31/2026
Elected Member:	Jonathan C. Campagna	Term Expires:	02/03/2028
Appointed Member:	Douglas Farwell	Term Expires:	07/25/2025

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 Leominster Retirement Board has adopted Supplemental Regulations which are available on the PERAC website at https://mass.gov/Leominster-retirement-board-regulations.

MEMBERSHIP EXHIBIT

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Retirement in Past Years										
Superannuation	19	18	18	25	35	23	21	21	16	21
Ordinary Disability	0	1	0	0	1	0	0	0	0	0
Accidental Disability	0	1	1	2	0	4	1	0	0	2
Total Retirements	19	20	19	27	36	27	22	21	16	23
Total Retirees, Beneficiaries and Survivors	390	387	393	391	425	434	444	453	452	453
Total Active Members	629	644	685	669	673	680	695	648	726	724
Pension Payments										
Superannuation	$4,843,232	$5,081,938	$5,273,635	$5,588,642	$6,059,328	$6,912,629	$7,307,339	$7,632,332	$7,926,160	$8,354,375
Survivor/Beneficiary Payments	332,918	317,305	319,049	305,978	311,720	225,395	89,333	85,911	128,837	159,982
Ordinary Disability	74,219	66,967	54,376	54,376	62,961	63,116	234,218	65,359	66,443	84,357
Accidental Disability	1,126,655	1,152,798	1,219,148	1,248,943	1,239,854	1,322,653	1,457,272	1,472,702	1,511,782	1,573,831
Other	595,671	564,768	505,246	518,067	677,611	671,737	633,732	639,067	640,793	660,276
Total Payments for Year	$6,972,695	$7,183,776	$7,371,454	$7,716,006	$8,351,474	$9,195,530	$9,721,895	$9,895,370	$10,274,016	$10,832,821

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A COMPONENT UNIT OF THE CITY OF LEOMINSTER, MASSACHUSETTS)

FINANCIAL STATEMENTS, REQUIRED SUPPLEMENTARY INFORMATION, AND OTHER INFORMATION

FOR THE YEAR ENDED DECEMBER 31, 2022

(WITH INDEPENDENT AUDITORS' REPORT THEREON)

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

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MARCUM
ACCOUNTANTS ▲ ADVISORS

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Opinion

We have audited the financial statements of the Leominster Contributory Retirement System (the System), as of and for the year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise the Leominster Contributory Retirement System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of the Leominster Contributory Retirement System, as of December 31, 2022, and the changes in fiduciary net 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 (GAAS). Our responsibilities under those standards are further described in the Auditors' 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 for the Financial Statements

Management is responsible for the preparation and fair presentation of the 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 statements date, including any currently known information that may raise substantial doubt shortly thereafter.

Marcum LLP / 101 Munson Street / Suite 120 / Greenfield, MA 01301 / Phone 413.773.5405 / marcumllp.com

Auditors' 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 auditors' report that includes our opinion. 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 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 judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment 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 audit 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 judgment, 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 (Asset), and the Schedules of the Net Pension Liability (Asset), Contributions, and Investment Returns, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the

United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Marcum LLP

Greenfield, MA
January 9, 2024

As management of the Leominster Contributory Retirement System (the System), we offer readers this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2022.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements are comprised of two components (1) fund financial statements and (2) notes to financial statements. This report also contains other required supplementary information in addition to the basic financial statements themselves.

Fund Financial Statements
A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Fund accounting is used to ensure and demonstrate compliance with finance-related legal requirements.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position held in trust restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pension changed during the year ended December 31, 2022. It reflects contributions by participating employers, active members, and external parties, investment activity, along with deductions for retirement benefits, refunds, transfers, and administrative expenses.

Notes to Financial Statements
The notes provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

Required Supplementary Information
The required supplementary information includes this Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability (Asset), and the Schedules of the Net Pension Liability (Asset), Contributions, and Investment Returns.

Financial Highlights

- The System's total net position restricted for pension was $258,293,807 at December 31, 2022, a change of $(41,216,270), or (13.76)%, compared to the prior year. This change is primarily due to investment losses during the year.
- Employer and employee contributions to the plan were $6,472,505, which represents a $1,369,625 change over the prior year. The employer share of contributions represents 34.78% of the total contributions made to the System.
- Benefits paid to plan participants increased by $745,613 or 5.89% compared to the prior year, totaling $13,397,562. At December 31, 2022, there were 438 retirees and beneficiaries in receipt of pension benefits, as further discussed on page 10.
- The System's funded ratio (based on the System's GASB 68 valuation) as of the January 1, 2022, actuarial valuation was 99.46%.

Financial Statement Analysis

The following is a summary of financial statement data for the current and prior fiscal year:

Fiduciary Net Position

	2022	2021
Assets		
Cash and receivables	$ 709,708	$ 612,290
Investments	257,586,803	298,923,912
Total Assets	$ 258,296,511	$ 299,536,202
Liabilities		
Accounts payable	2,704	26,125
Net Position		
Restricted for pension	$ 258,293,807	$ 299,510,077

The System's total assets as of December 31, 2022 were $258,296,511 and were mostly comprised of cash and investments. Total assets decreased by $(41,239,691), or (13.77)%, from the prior year primarily due to a decrease in investment value.

Changes in Fiduciary Net Position

	2022	2021
Additions		
Contributions	$ 6,843,603	$ 5,458,408
Net investment income (loss)	(33,508,589)	50,242,794
Total Additions	(26,664,986)	55,701,202
Deductions		
Benefit payments	13,397,562	12,651,949
Other	1,153,722	891,539
Total Deductions	14,551,284	13,543,488
Changes in Net Position	(41,216,270)	42,157,714
Net Position Restricted for Pension		
Beginning of Year	299,510,077	257,352,363
End of Year	$ 258,293,807	$ 299,510,077

The amount needed to finance benefits is accumulated through the collection of employers' and employees' contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA and through earnings on investments. Contributions and net investment loss for calendar year 2022 resulted in a net loss of $(26,664,986). Employers' contributions increased by $837,536 in calendar year 2022. The System had net investment losses of $(33,508,589) versus net investment income of $50,242,794 in 2021, primarily due to less favorable market results in 2022.

The primary deductions of the System include the payment of pension benefits to participants and beneficiaries, refunds and transfers of member contributions, reimbursement payments in accordance with Massachusetts General Laws, Chapter 32, Section 3(8)c, more commonly referred to as 3(8)c reimbursements, and the costs of administering the System. Total deductions for calendar year 2022 were $14,551,284, which represents an increase of $1,007,796, or 7.44%, over deductions of $13,543,488 in calendar year 2021. The payment of pension benefits changed by $745,613 or 5.89% over the previous year.

Return on Investment and Funding

The Leominster Contributory Retirement System Board continuously monitors investment performance at its monthly meetings. The money-weighted rate of return for the System's investments, as of December 31, 2022, was (11.19)%.

Requests for Information

This financial report is designed to provide a general overview of the Leominster Contributory Retirement System's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to:

Leominster Contributory Retirement System
Ms. Erin Hunt, Retirement Administrator
25 West Street
Leominster, MA 01453

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2022

Assets	
Cash and short-term investments	$ 693,059
Investments in external investment pool	257,586,803
Accounts receivable	16,649
Total Assets	258,296,511
Liabilities	
Accounts payable	2,704
Net Position	
Restricted for Pension	258,293,807
Total Net Position	$ 258,293,807

The accompanying notes are an integral part of these financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

FOR THE YEAR ENDED DECEMBER 31, 2022

Additions	
Contributions:	
Employers	$ 2,380,409
Plan members	4,092,096
Other systems and Commonwealth of Massachusetts	231,426
Other	139,672
Total Contributions	6,843,603
Investment (loss):	
Decrease in fair value of investments	(32,141,710)
Less: management fees	(1,366,879)
Net investment (loss)	(33,508,589)
Total Additions	(26,664,986)
Deductions	
Benefit payments to plan members, beneficiaries, and other systems	13,397,562
Refunds to plan members	581,520
Transfers to other systems	337,975
Administrative expenses	234,227
Total Deductions	14,551,284
Net Decrease	(41,216,270)
Net Position Restricted for Pension	
Beginning of Year	299,510,077
End of Year	$ 258,293,807

The accompanying notes are an integral part of these financial statements.

NOTE 1 – DESCRIPTION OF PLAN

Substantially all employees of the City of Leominster, Massachusetts (except teachers and administrators under contract employed by the School Department) and Leominster Housing Authority are members of the Leominster Contributory Retirement System (the System), a cost sharing, multiple employer Public Employee Retirement System (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of Massachusetts General Laws establishes the authority of the System, contribution percentages, and benefits paid. The Leominster Contributory Retirement Board does not have the authority to amend benefit provisions.

Membership of the plan consisted of the following at January 1, 2022:

Inactive employees or beneficiaries currently receiving benefits	438
Inactive employees entitled to a return of contributions	350
Active plan members	646
Total	1,434
Number of participating employers	2

PARTICIPANT CONTRIBUTIONS

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the System. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of $30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 – present	9%

For those members entering the System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

NOTE 1 – DESCRIPTION OF PLAN (CONTINUED)

EMPLOYER CONTRIBUTIONS

Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

PARTICIPANT RETIREMENT BENEFITS

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are four classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 – General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 – Certain specified hazardous duty positions.
- Group 4 – Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left City employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55.

NOTE 1 – DESCRIPTION OF PLAN (CONTINUED)

PARTICIPANT RETIREMENT BENEFITS (CONTINUED)

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2, respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the group position for at least 12 months immediately prior to retirement.

METHODS OF PAYMENT

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A – Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.
- Option B – A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member—provided, however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.
- Option C – A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

PARTICIPANT REFUNDS

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the

NOTE 1 – DESCRIPTION OF PLAN (CONTINUED)

PARTICIPANT REFUNDS (CONTINUED)

regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

NOTE 2 – NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

NATURE OF OPERATIONS

The System is a member of the Massachusetts Contributory Retirement Systems and is governed by Chapter 32 of Massachusetts General Laws. Because of the significance of its operational and financial relationship with the City of Leominster, Massachusetts (the City), the System is included as a fiduciary component unit in the City's basic financial statements. The System is governed by a five-member board. The five members include two appointed by the City, two elected by the members and retirees, and a fifth member chosen by the other four members with the approval of PERAC.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accounting policies of the System as reflected in the accompanying financial statements for the year ended December 31, 2022 conform to generally accepted accounting principles for public employee retirement systems (PERS). The more significant accounting policies of the System are summarized below:

BASIS OF ACCOUNTING

The System follows accounting policies mandated by the Commonwealth of Massachusetts. The accounting records are maintained on the accrual basis of accounting. Contributions from the City of Leominster and Leominster Housing Authority employees are recognized as revenue in the period in which employees provide services to the respective member unit.

INVESTMENTS

Investment Policy

Investments are reported at fair value in accordance with PERAC requirements. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

NOTE 2 – NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

INVESTMENTS (CONTINUED)

Rate of Return

For the year ended December 31, 2022, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was (11.19)%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts invested throughout the year.

NOTE 3 – CASH AND SHORT-TERM INVESTMENTS

CUSTODIAL CREDIT RISK – DEPOSITS

Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned. Massachusetts General Laws Chapter 32, Section 23, limits the System's deposits "in a bank or trust company to an amount not exceeding ten percent of the capital and surplus of such bank or trust company". The System does not have a deposit policy for custodial credit risk.

As of December 31, 2022, none of the System's bank balance of $1,785,738 was exposed to custodial credit risk as uninsured and/or uncollateralized. Additionally, $140,499 was invested in MMDT, which is not subject to this disclosure.

NOTE 4 – INVESTMENTS

All of the System's investments totaling $257,586,803 are in an external investment pool, the Pension Reserves Investment Trust (the PRIT Fund).*

** Fair value is the same as the value of the pool share. The Pension Reserves Investment Trust (PRIT) was created under Massachusetts General Laws (MGL) Chapter 32, Section 22, in December 1983. PRIT is operated under contract with a private investment advisor, approved by the Pension Reserves Investment Management Board. The Pension Reserves Investment Management Board shall choose an investment advisor by requesting proposals from advisors and reviewing such proposals based on criteria adopted under MGL Chapter 30B.*

NOTE 4 – INVESTMENTS (CONTINUED)

CREDIT RISK – INVESTMENTS IN DEBT SECURITIES

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Massachusetts General Laws, Chapter 32, Section 23, limits the investment of pension funds, to the extent not required for current disbursements, in the PRIT Fund or in securities, other than mortgages or collateral loans, which are legal for the investment of funds in savings banks under the laws of the Commonwealth of Massachusetts, provided that no more than the established percentage of assets, is invested in any one security. The System does not have formal investment policies related to credit risk.

Due to their nature, none of the System's investments are subject to credit risk disclosure.

CUSTODIAL CREDIT RISK

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, investment or collateral securities that are in the possession of another party will not be recovered. The System does not have policies for custodial credit risk.

Investments in external investment pools are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form. As a result, all of the System's investments of $257,586,803 are exempt from the custodial credit risk disclosure.

CONCENTRATION OF CREDIT RISK

Concentration of credit risk is the risk of loss attributable to the magnitude of the System's investment in a single issuer. Massachusetts General Laws, Chapter 32, Section 23 limit the amount the System may invest in any one issuer or security type, with the exception of the PRIT Fund.

Investments issued or explicitly guaranteed by the external investment pools are excluded from concentration of credit disclosure.

All of the System's investments are exempt from concentration of credit risk disclosure.

NOTE 4 – INVESTMENTS (CONTINUED)

INTEREST RATE RISK – INVESTMENTS IN DEBT SECURITIES

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Information about the sensitivity of the fair values of the System's investments to market interest rate fluctuations is not applicable as all of the System's investments are immediately liquid.

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The System does not have formal investment policies related to foreign currency risk.

At December 31, 2022, none of the System's investments were exposed to foreign currency risk.

FAIR VALUE

The System categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board (GASB) Statement No. 72 *Fair Value Measurement and Application*

Due to the nature of the System's investments, they are measured at net asset value (NAV).

The NAV per share is the amount of net assets attributable to each share of capital stock outstanding at the close of the period. Investments measured at the NAV for fair value are not subject to level classification.

Description	Value	Unfunded Commitments	Redemption Frequency (If currently eligible)	Redemption Notice Period
External investment pool: PRIT	$ 257,586,803	$ --	Monthly	30 Days

NOTE 5 – ACCOUNTS RECEIVABLE

Annually the Public Employee Retirement Administration (PERAC) determines the amount of employer contributions (pension appropriations) to be made to the System. The accounts receivable balance primarily represents legal amounts due from employers for pension appropriation not received until after December 31, 2022.

NOTE 6 – COMMITMENTS AND CONTINGENCIES

OUTSTANDING LEGAL ISSUES

On an ongoing basis, there are typically pending legal issues in which the System is involved. The System's management is of the opinion that the potential future settlement of these issues would not materially affect its financial statements taken as a whole.

UNFUNDED CAPITAL COMMITMENTS – INVESTMENTS

As of December 31, 2022, the System did not have any outstanding capital commitments.

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

The net pension liability was based on an actuarial valuation dated January 1, 2022, rolled forward to December 31, 2022.

NET PENSION LIABILITY OF EMPLOYERS

The components of the net pension liability of the participating employers at December 31, 2022 were as follows:

Total pension liability	$ 259,700,165
Plan fiduciary net position	(258,293,807)
Employers' net pension liability	$ 1,406,358
Plan fiduciary net position as a percentage of total pension liability	99.46%

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

ACTUARIAL ASSUMPTIONS

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

Valuation date	1/1/2022
Actuarial cost method	Entry age normal actuarial cost method
Remaining amortization period	0 years remaining
Actuarial assumptions:	
Investment rate of return	5.50%
Projected salary increases:	
Group 1 and 2	7.50% increase in years 1 - 7 ; 3.75% increase in all other years
Fire	9.00% increase for years 1-2; 6.00% increase in year 3; 4.00% increase in all other years
Police	9.00% increase for years 1-2; 5.00% increase for year 3; 7.00% increase for year 4; 3.75% increase in all other years
Inflation rate	2.60%
Post-retirement cost-of-living adjustment	3.00% increase on first $13,000
Mortality rates:	
Non-Disabled Retirees	RP-2014 table adjusted to 2006 and projected generationally with MP-2021 (sex-distinct)
Disabled Retirees	RP-2014 table adjusted to 2006 and projected generationally with MP-2021 (sex-distinct); set forward 2 years

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

ACTUARIAL ASSUMPTIONS (CONTINUED)

Actuarial valuations of the ongoing Systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension asset are subject to continual revision, as actual results are compared with past expectations and new estimates are made about the future.

Change in Benefits Terms

The January 1, 2022, valuation included an increase of COLA base from $12,000 to $13,000 which increased the net pension liability by approximately $1.5 million.

Change of Assumptions

The January 1, 2022, valuation included an update of the mortality assumption, which increased the net pension liability by approximately $497,000.

TARGET ALLOCATIONS

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 System's targeted asset allocation as of December 31, 2022, are summarized in the following table.

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

TARGET ALLOCATIONS (CONTINUED)

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
US equity	21.20%	4.39%
International equities	12.20%	4.19%
Emerging equities	4.70%	6.82%
Hedged equity	8.60%	0.00%
Core bonds	13.80%	2.05%
Short-term fixed income	0.00%	1.17%
Treasury STRIPS	0.00%	1.66%
TIPS/ILBs	0.00%	1.46%
Value-added fixed income	7.00%	5.07%
Private equity	17.70%	7.41%
Real estate	11.20%	3.02%
Timberland	3.20%	4.29%
Portfolio completion (PCS)	0.40%	3.80%
Total	100.00%	

DISCOUNT RATE

The discount rate used to measure the total pension asset was 5.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates by Statute. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the 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.

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

SENSITIVITY OF DISCOUNT RATE

The following presents the net pension liability (asset) of the participating employers calculated using the discount rate of 5.50%, as well as what the participating employers' net pension liability (asset) would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current rate:

1% Decrease (4.50%)	Current Discount Rate (5.50%)	1% Increase (6.50%)
$ 33,714,480	$ 1,406,358	$ (25,529,364)

DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

The following schedule reflects the deferred outflows and inflows of resources for the System for the year ended December 31, 2022:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 3,776,229	$ (1,584,975)
Changes of assumptions	401,345	(2,368,573)
Net difference between projected and actual investment earnings on pension plan investments	7,493,965	--
Changes in proportion and differences between employer contributions and proportionate share of contributions	302,750	(302,750)
Total	$ 11,974,289	$ (4,256,298)

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES (CONTINUED)

The following summarizes changes in deferred outflows and inflows for the year ended December 31, 2022:

	Measurement Year	Amortization Period	Beginning Balance on Prior Measurement Period Deferrals	Current Measurement Period Additions	Amortization of Amounts Recognized in Current Period Pension Expense	End of Year Balance
Deferred Outflows of Resources						
Differences between expected and actual experience	2021	5.1	$ 2,074,155	$ --	$ (505,891)	$ 1,568,264
	2020	5.7	893,755	--	(241,556)	652,199
	2019	5.7	2,470,922	--	(915,156)	1,555,766
Changes of assumptions	2022	5.2	--	496,903	(95,558)	401,345
Net difference between projected and actual investment earnings on pension plan investments	2022	5.0	--	49,781,166	(9,956,233)	39,824,933
	2021	5.0	(29,039,416)	--	7,259,854	(21,779,562)
	2020	5.0	(9,313,531)	--	3,104,510	(6,209,021)
	2019	5.0	(8,684,771)	--	4,342,386	(4,342,385)
	2018	5.0	4,475,144	--	(4,475,144)	--
Changes in proportion and differences between employer contributions and proportionate share of contributions	2022	5.2	--	144,688	(27,825)	116,863
	2021	5.1	86,654	--	(21,135)	65,519
	2020	5.7	102,069	--	(27,586)	74,483
	2019	5.7	154,919	--	(57,378)	97,541
	2018	5.5	62,024	--	(41,353)	20,671
	2017	5.8	91,934	--	(114,915)	(22,981)
	2016	6.4	7,960	--	(19,915)	(11,955)
	2015	6.4	(14,020)	--	(23,371)	(37,391)
Total Deferred Outflows of Resources			(36,632,202)	50,422,757	(1,816,266)	11,974,289
Deferred Inflows of Resources						
Differences between expected and actual experience	2022	5.2	--	(1,606,319)	308,908	(1,297,411)
	2018	5.5	(862,689)	--	575,125	(287,564)
	2017	5.8	(475,984)	--	475,984	--
Changes of assumptions	2021	5.1	(1,045,724)	--	255,055	(790,669)
	2020	5.7	(2,162,312)	--	584,408	(1,577,904)
	2017	5.8	(158,801)	--	158,801	--
Changes in proportion and differences between employer contributions and proportionate share of contributions	2022	5.2	--	(144,688)	27,825	(116,863)
	2021	5.1	(86,654)	--	21,135	(65,519)
	2020	5.7	(102,069)	--	27,586	(74,483)
	2019	5.7	(154,919)	--	57,378	(97,541)
	2018	5.4	(62,024)	--	41,353	(20,671)
	2017	6.0	(91,934)	--	114,915	22,981
	2016	6.0	(7,960)	--	19,915	11,955
	2015	5.9	14,020	--	23,371	37,391
Total Deferred Inflows of Resources			(5,197,050)	(1,751,007)	2,691,759	(4,256,298)
Total Collective Deferred Outflows/Inflows of Resources			$ (41,829,252)	$ 48,671,750	$ 875,493	$ 7,717,991

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES (CONTINUED)

The following schedule reflects the amortization of the balance of deferred outflows and inflows of resources as increase (decreases) in pension expense:

Fiscal Year*	Total
2024	$ (4,428,289)
2025	(72,887)
2026	2,493,869
2027	9,767,968
2028	(42,670)
	$ 7,717,991

** Presented by member units' fiscal year to fairly present the fiduciary impact of related deferred outflows and inflows in the fiscal year affecting the member unit.*

COLLECTIVE PENSION EXPENSE

The calculation of collective pension expense for the year ended December 31, 2022 is presented in the following table:

Service cost	$ 6,891,979
Interest on the total pension liability	13,882,408
Differences between expected and actual experience	302,586
Changes of assumptions	(902,706)
Changes to benefits provisions	1,461,021
Employee contributions	(3,889,008)
Projected earnings on pension plan investments	(16,272,577)
Differences between projected and actual earnings on plan investments	(275,374)
Pension plan administrative expense	234,224
	$ 1,432,553

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (CONTINUED)

COLLECTIVE PENSION EXPENSE (CONTINUED)

Each member unit's proportionate share of the collective pension expense is equal to the collective pension expense multiplied by the member unit's proportionate share percentage of the year ended December 31, 2022.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY (ASSET)

(Unaudited)

FOR THE YEAR ENDED DECEMBER 31, 2022

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service cost	$ 6,891,978	$ 6,814,302	$ 4,580,859	$ 4,673,416	$ 4,920,867	$ 4,743,004	$ 4,736,176	$ 4,564,989	$ 4,700,942
Interest	13,882,409	12,513,601	12,260,167	11,741,492	11,668,560	10,989,454	10,677,325	10,348,916	10,032,001
Changes of benefit terms	1,461,021	6,672,723	--	--	--	12,074,038	--	--	--
Differences between expected and actual experience	(1,606,319)	2,580,046	1,376,867	5,216,392	(3,163,194)	(3,450,884)	--	(144,198)	--
Changes of assumptions	496,903	(1,300,779)	(3,331,130)	--	--	(1,151,302)	--	--	--
Benefit payments, including refunds of member contributions	(13,882,546)	(12,788,623)	(12,236,009)	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)	(8,876,028)
Other *	--	10,865,417	--	--	--	--	--	--	--
Net change in total pension liability	7,243,446	25,356,687	2,650,754	9,650,761	1,701,263	12,859,661	6,267,682	5,975,900	5,856,915
Total pension liability, Beginning	252,456,719	227,100,032	224,449,278	214,798,517	213,097,254	200,237,593	193,969,911	187,994,011	182,137,096
Total pension liability, Ending (a)	259,700,165	252,456,719	227,100,032	224,449,278	214,798,517	213,097,254	200,237,593	193,969,911	187,994,011
Plan Fiduciary Net Position									
Contributions - employer	2,102,488	2,052,546	9,107,159	9,090,412	9,091,045	9,161,659	8,974,919	8,877,488	8,760,770
Contributions - member	3,889,008	3,261,106	3,203,913	3,181,668	2,964,757	2,812,073	2,805,801	2,629,443	2,890,151
Net investment income (loss)	(33,508,589)	50,242,794	28,131,871	32,355,125	(10,953,869)	30,376,424	15,094,672	(246,364)	9,301,503
Benefit payments, including refunds of member contributions	(13,882,546)	(12,788,623)	(12,236,009)	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)	(8,876,028)
Administrative expense	(234,223)	(192,518)	(154,807)	(153,606)	(148,557)	(151,361)	(140,546)	(139,267)	(116,936)
Net change in plan fiduciary net position	(41,633,862)	42,575,305	28,052,127	32,493,060	(10,771,594)	31,854,146	17,589,027	2,327,493	11,959,460
Plan fiduciary net position, Beginning	299,927,669	257,352,364	229,300,237	196,807,177	207,578,771	175,724,625	158,135,598	155,808,105	143,848,645
Plan fiduciary net position, Ending (b)	258,293,807	299,927,669	257,352,364	229,300,237	196,807,177	207,578,771	175,724,625	158,135,598	155,808,105
Net Pension Liability (Asset), Ending (a-b)**	$ 1,406,358	$ (47,470,951)	$ (30,252,332)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906

* The amount shown for "Other" refers to the effect of a member data correction which increased the liability by $10.9 million. The service costs reflects this correction.
** Total may not add due to rounding

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the System's financial statements for summary of actuarial methods and assumptions.

See independent auditors' report.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULES OF THE NET PENSION LIABILITY (ASSET), CONTRIBUTIONS, AND INVESTMEMT RETURNS

(Unaudited)

FOR THE YEAR ENDED DECEMBER 31, 2022

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Schedule of Net Pension Liability									
Total pension liability	$ 259,700,165	$ 252,456,719	$ 227,100,032	$ 224,449,278	$ 214,798,517	$ 213,097,254	$ 200,237,593	$ 193,969,911	$ 187,994,011
Plan fiduciary net position	(258,293,807)	(299,927,669)	(257,352,363)	(229,300,237)	(196,807,177)	(207,578,771)	(175,724,625)	(158,135,598)	(155,808,105)
Net pension liability (asset)*	$ 1,406,358	$ (47,470,951)	$ (30,252,331)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906
Plan fiduciary net position as a percentage of the total pension liability (asset)	99.46%	118.80%	113.32%	102.16%	91.62%	97.41%	87.76%	81.53%	82.88%
Calendar year covered payroll	$ 35,338,407	$ 33,095,332	$ 33,425,615	$ 31,761,577	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Participating employer net pension liability (asset) as a percentage of covered payroll		143.44%	90.51%	15.27%	59.32%	18.07%	81.90%	125.02%	117.78%
Schedule of Contributions									
Actuarially determined contribution	$ 1,962,817	$ 1,960,463	$ 9,074,412	$ 9,074,412	$ 9,074,412	$ 8,980,783	$ 8,890,538	$ 8,787,188	$ 8,687,572
Contributions in relation to the actuarially determined contribution	(2,102,488)	(2,052,546)	(9,107,159)	(9,090,412)	(9,091,045)	(9,161,659)	(8,974,919)	(8,877,488)	(8,760,770)
Contribution (excess)	$ (139,671)	$ (92,083)	$ (32,747)	$ (16,000)	$ (16,633)	$ (180,876)	$ (84,381)	$ (90,300)	$ (73,198)
Fiscal year covered payroll	$ 36,271,000	$ 33,957,000	$ 34,327,000	$ 32,558,000	$ 31,059,000	$ 31,231,000	$ 30,586,000	$ 29,297,000	$ 27,890,000
Contributions as a percentage of covered payroll	5.80%	6.04%	26.53%	27.92%	29.27%	29.34%	29.34%	30.30%	31.41%
Schedule of Investment Returns									
Annual money weighted rate of return, net of investment expense	-11.19%	19.81%	12.22%	16.59%	-5.26%	17.32%	9.26%	1.29%	6.70%

*Total may not add due to rounding

Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the System's financial statements for summary of actuarial methods and assumptions.

See independent auditors' report.

MARCUM
ACCOUNTANTS ▲ ADVISORS

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Opinion

We have audited the accompanying schedule of employer allocations of the Leominster Contributory Retirement System (the System) as of and for the year ended December 31, 2022. We have also audited the total for all entities of the net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense included in the accompanying schedule of pension amounts by employer of the Leominster Contributory Retirement System as of and for the year ended December 31, 2022.

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, and total pension expense for the total of all participating entities for the Leominster Contributory Retirement System as of and for the year ended December 31, 2022, 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 responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of the Leominster Contributory Retirement 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 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.

Marcum LLP / 101 Munson Street / Suite 120 / Greenfield, MA 01301 / Phone 413.773.5405 / marcumllp.com

Auditors' Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedules as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. 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 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 judgment made by a reasonable user based on the schedules.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment 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 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 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 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.

Restriction on Use

Our report is intended solely for the information and use of Leominster Contributory Retirement System management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2022 and is not intended to be and should not be used by anyone other than these specified parties.

Marcum LLP

Greenfield, MA
January 9, 2024

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2022

Employer	FY 2023 Actual Employer Contributions	Allocation Percentage
City of Leominster	$ 1,879,594	95.76%
Leominster Housing Authority	83,223	4.24%
Total	$ 1,962,817	100.00%

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022

	City of Leominster	Leominster Housing Authority	Total
Net Pension Liability	$ 1,346,728	$ 59,630	$ 1,406,358
Deferred Outflows of Resources			
Differences between expected and actual experience	$ 3,616,117	$ 160,112	$ 3,776,229
Changes of assumptions	384,328	17,017	401,345
Net difference between projected and actual investment earnings on pension plan investments	7,176,221	317,744	7,493,965
Changes in proportion and differences between employer contributions and proportionate share of contributions	291,814	10,936	302,750
Total Deferred Outflows of Resources	$ 11,468,480	$ 505,809	$ 11,974,289
Deferred Inflows of Resources			
Differences between expected and actual experience	$ 1,517,772	$ 67,203	$ 1,584,975
Changes of assumptions	2,268,146	100,427	2,368,573
Changes in proportion and differences between employer contributions and proportionate share of contributions	191,351	111,399	302,750
Total Deferred Inflows of Resources	$ 3,977,269	$ 279,029	$ 4,256,298
Pension Expense			
Proportionate share of pension expense	$ 1,371,813	$ (39,990)	$ 1,331,823
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	60,740	39,990	100,730
Total Pension Expense	$ 1,432,553	$ --	$ 1,432,553
Contributions			
Actuarially determined contribution	$ 1,879,594	$ 83,223	$ 1,962,817
Contributions made	(2,013,343)	(89,145)	(2,102,488)
Contribution deficiency (excess)	$ (133,749)	$ (5,922)	$ (139,671)
Contributions as a percentage of covered payroll	5.94%	6.06%	5.95%
Deferred Outflows and Inflows Recognized in Future Pension Expense			
June 30, 2024	$ (4,197,613)	$ (230,676)	$ (4,428,289)
June 30, 2025	(33,158)	(39,729)	(72,887)
June 30, 2026	2,411,475	82,394	2,493,869
June 30, 2027	9,351,887	416,081	9,767,968
June 30, 2028	(41,381)	(1,289)	(42,670)
Total Deferred Outflows and Inflows Recognized in Future Pension Expense	$ 7,491,210	$ 226,781	$ 7,717,991
Discount Rate Sensitivity			
1% decrease (4.50%)	$ 32,284,986	$ 1,429,494	$ 33,714,480
Current discount rate (5.50%)	$ 1,346,728	$ 59,630	$ 1,406,358
1% increase (6.50%)	$ (24,446,919)	$ (1,082,445)	$ (25,529,364)
Covered Payroll	$ 33,866,677	$ 1,471,730	$ 35,338,407

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Financial Statements, Required Supplementary Information,
and Other Information
For the Year Ended December 31, 2021

(With Independent Auditor's Report Thereon)

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MELANSON

INDEPENDENT AUDITOR'S REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Opinion

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

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of the Leominster Contributory Retirement System, as of December 31, 2021, and the respective changes in fiduciary net 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 (GAAS). 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 for the Financial Statements

The System's management is responsible for the preparation and fair presentation of the 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

Merrimack, New Hampshire
Andover, Massachusetts
Greenfield, Massachusetts
Ellsworth, Maine

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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 opinion. 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 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 judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment 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 audit 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 judgment, 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 the Schedules of the Net Pension Liability, Contributions, and Investment Returns, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Melanson

Greenfield, Massachusetts
January 23, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Leominster Contributory Retirement System (the System), we offer readers this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2021.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements are comprised of two components (1) fund financial statements and (2) notes to financial statements. This report also contains other required supplementary information in addition to the basic financial statements themselves.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Fund accounting is used to ensure and demonstrate compliance with finance-related legal requirements.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position held in trust restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pensions changed during the year ended December 31, 2021. It reflects contributions by participating employers, active members, and external parties, investment activity, along with deductions for retirement benefits, refunds, transfers, and administrative expenses.

Notes to Financial Statements

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

Required Supplementary Information

The required supplementary information includes this Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of Net Pension Liability, Contributions, and Investment Returns.

Financial Highlights

- The System's total net position restricted for pensions was $299,510,077 at December 31, 2021, a change of $42,157,714, or 16.38%, over the prior year. This change is primarily due to investment gains during the year.
- Employer and employee contributions to the plan were $5,102,880, which represents a $(7,461,194) change over the prior year. The employer share of contributions represents 28.27% of the total contributions made to the System and decreased from the prior year due to the plan's funded status.
- Benefits paid to plan participants changed by $507,309 or 4.18%, totaling $12,651,949. At December 31, 2021, there were 438 retirees and beneficiaries in receipt of pension benefits, as further discussed on page 10.
- The System's funded ratio (based on the System's GASB 68 valuation) as of the January 1, 2021 actuarial valuation was 118.80%.

Financial Statement Analysis

The following is a summary of financial statement data for the current and prior fiscal year:

FIDUCIARY NET POSITION

	2021	2020
Assets		
Cash and receivables	$ 612,290	$ 963,404
Investments	298,923,912	256,389,496
Total Assets	299,536,202	257,352,900
Liabilities		
Accounts payable	26,125	537
Net Position		
Restricted for pensions	$ 299,510,077	$ 257,352,363

The System's total assets as of December 31, 2021 were $299,536,202 and were mostly comprised of investments. Total assets increased by $42,183,302, or 16.39%, from the prior year primarily due to an increase in investment value.

CHANGES IN FIDUCIARY NET POSITION

	2021	2020
Additions		
Contributions	$ 5,458,408	$ 12,791,267
Net investment income	50,242,794	28,150,736
Total Additions	55,701,202	40,942,003
Deductions		
Benefit payments	12,651,949	12,144,640
Other	891,539	745,237
Total Deductions	13,543,488	12,889,877
Changes in Net Position	42,157,714	28,052,126
Net Position Restricted for Pensions		
Beginning of Year	257,352,363	229,300,237
End of Year	$ 299,510,077	$ 257,352,363

The amount needed to finance benefits is accumulated through the collection of employers' and employee's contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA and through earnings on investments. Contributions and net investment income for calendar year 2021 resulted in a net gain of $55,701,202. Employers' contributions decreased by $(7,531,539) in calendar year 2021. The System had net investment income of $50,242,794 versus $28,150,736 in 2020, primarily due to more favorable market results in 2021.

The primary deductions of the System include the payment of pension benefits to participants and beneficiaries, refunds and transfers of member contributions, reimbursement payments in accordance with Massachusetts General Laws, Chapter 32, Section 3(8)c, more commonly referred to as 3(8)c reimbursements, and the costs of administering the System. Total deductions for calendar year 2021 were $13,543,488, which represents a change of $653,611, or 5.07%, over deductions of $12,889,877 in calendar year 2020. The payment of pension benefits changed by $507,309 or 4.18% over the previous year.

Return on Investment and Funding

The Leominster Contributory Retirement System Board continuously monitors investment performance at its monthly meetings. The money-weighted rate of return for the System's investments, as of December 31, 2021, was 19.81%.

Requests for Information

This financial report is designed to provide a general overview of the Leominster Contributory Retirement System's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to:

Leominster Contributory Retirement System
Ms. Erin Kelley, Retirement Administrator
25 West Street
Leominster, MA 01453

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Statement of Fiduciary Net Position
December 31, 2021

Assets	
Cash and short-term investments	$ 514,812
Investments in external investment pool	298,923,912
Accounts receivable	97,478
Total Assets	299,536,202
Liabilities	
Accounts payable	26,125
Net Position	
Restricted for Pensions	299,510,077
Total Net Position	$ 299,510,077

The accompanying notes are an integral part of these financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Statement of Changes in Fiduciary Net Position
For the Year Ended December 31, 2021

Additions		
Contributions:		
Employers	$	1,542,873
Plan members		3,560,007
Other systems and Commonwealth of Massachusetts		263,445
Other		92,083
Total Contributions		5,458,408
Investment income:		
Increase in fair value of investments		51,619,996
Less: management fees		(1,377,202)
Net investment income		50,242,794
Total Additions		55,701,202
Deductions		
Benefit payments to plan members, beneficiaries, and other systems		12,651,949
Refunds to plan members		358,501
Transfers to other systems		340,517
Administrative expenses		192,521
Total Deductions		13,543,488
Net Increase		42,157,714
Net Position Restricted for Pensions		
Beginning of Year		257,352,363
End of Year	$	299,510,077

The accompanying notes are an integral part of these financial statements.

1. Description of Plan

Substantially all employees of the City of Leominster, Massachusetts (the City) (except teachers and administrators under contract employed by the School Department) and Leominster Housing Authority are members of the Leominster Contributory Retirement System (the System), a cost sharing, multiple employer public employee retirement system (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages, and benefits paid. The Leominster Contributory Retirement Board does not have the authority to amend benefit provisions.

Membership of the plan consisted of the following at January 1, 2021:

Inactive employees or beneficiaries currently receiving benefits	438
Inactive employees entitled to a return of contributions	330
Active plan members	607
Total	1,375
Number of participating employers	2

Participant Contributions

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the System. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of $30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 – present	9%

For those members entering the System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

Employer Contributions
Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

Participant Retirement Benefits
A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are four classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 – General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 – Certain specified hazardous duty positions.
- Group 4 – Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left City employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2, respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the group position for at least 12 months immediately prior to retirement.

Methods of Payment

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A – Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.
- Option B – A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.
- Option C – A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

Participant Refunds

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

2. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

The System is a member of the Massachusetts Contributory Retirement Systems and is governed by Chapter 32 of the Massachusetts General Laws. Because of the significance of its operational and financial relationship with the City, the System is included as a pension trust fund in the City's basic financial statements. The System is governed by a five-member board. The five members include two appointed by the City, two elected by the members and retirees, and a fifth member chosen by the other four members with the approval of PERAC.

Summary of Significant Accounting Policies

The accounting policies of the System as reflected in the accompanying financial statements for the year ended December 31, 2021 conform to generally accepted accounting principles for public employee retirement systems (PERS). The more significant accounting policies of the System are summarized below:

Basis of Accounting

The System follows accounting policies mandated by the Commonwealth of Massachusetts. The accounting records are maintained on the accrual basis of accounting. Contributions from the City of Leominster and Leominster Housing Authority employees are recognized as revenue in the period in which employees provide services to the respective member unit.

Investments

Investment Policy

Investments are reported at fair value in accordance with PERAC requirements. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

Rate of Return

For the year ended December 31, 2021, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 19.81%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested throughout the year.

3. Cash and Short-Term Investments

Custodial Credit Risk – Deposits

Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned. Massachusetts General Laws Chapter 32, Section 23, limits the System's deposits "in a bank or trust company to an amount not exceeding ten percent

of the capital and surplus of such bank or trust company." The System does not have a deposit policy for custodial credit risk.

As of December 31, 2021, none of the System's bank balance of $480,197 was exposed to custodial credit risk as uninsured or uncollateralized. Additionally, $137,992 was invested in MMDT, which is not subject to this disclosure.

4. Investments

All of the System's investments totaling $298,923,912 are in an external investment pool, the Pension Reserves Investment Trust (the PRIT Fund).*

** Fair value is the same as the value of the pool share. The Pension Reserves Investment Trust (PRIT) was created under Massachusetts General Laws (MGL) Chapter 32, Section 22, in December 1983. PRIT is operated under contract with a private investment advisor, approved by the Pension Reserves Investment Management Board. The Pension Reserves Investment Management Board shall choose an investment advisor by requesting proposals from advisors and reviewing such proposals based on criteria adopted under MGL Chapter 30B.*

Credit Risk – Investments in Debt Securities

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Massachusetts General Laws, Chapter 32, Section 23, limits the investment of pension funds, to the extent not required for current disbursements, in the PRIT Fund or in securities, other than mortgages or collateral loans, which are legal for the investment of funds in savings banks under the laws of the Commonwealth of Massachusetts, provided that no more than the established percentage of assets, is invested in any one security. The System does not have formal investment policies related to credit risk.

Due to their nature, none of the System's investments are subject to credit risk disclosure.

Custodial Credit Risk

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, investment or collateral securities that are in the possession of another party will not be recovered. The System does not have policies for custodial credit risk.

All of the System's investments of $298,923,912 are exempt from the custodial credit risk disclosure.

Investments in external investment pools are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of the System's investment in a single issuer. Massachusetts General Laws Chapter 32, Section 23 limit the amount the System may invest in any one issuer or security type, with the exception of the PRIT Fund.

Investments issued or explicitly guaranteed by the external investment pools are excluded from concentration of credit disclosure.

All of the System's investments are exempt from concentration of credit risk disclosure.

Interest Rate Risk – Investments in Debt Securities

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Information about the sensitivity of the fair values of the System's investments to market interest rate fluctuations is not applicable as all of the System's investments are immediately liquid.

Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The System does not have formal investment policies related to foreign currency risk.

At December 31, 2021, none of the System's investments were exposed to foreign currency risk.

Fair Value

The System categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application*

Due to the nature of the System's investments, they are measured at net asset value (NAV).

The NAV per share is the amount of net assets attributable to each share outstanding at the close of the period. Investments measured using NAV for fair value are not subject to level classification.

Description	Value	Unfunded Commitments	Redemption Frequency (If currently eligible)	Redemption Notice Period
External investment pool: PRIT	$ 298,923,912	$ -	Monthly	30 Days

5. Accounts Receivable

Annually the Public Employee Retirement Administration (PERAC) determines the amount of employer contributions (pension appropriations) to be made to the System. The accounts receivable balance primarily represents legal amounts due from employers for pension appropriation not received until after December 31, 2021.

6. Commitments and Contingencies

COVID-19

The COVID-19 outbreak in the United States (and across the globe) has resulted in economic uncertainties. There is considerable uncertainty around the duration and scope of the economic disruption. The extent of the impact of COVID-19 on the System's operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, impact on individuals served by the System, employees, and vendors, all of which are uncertain and cannot be predicted. At this point, the extent to which COVID-19 may impact the System's financial condition or results of operations remains uncertain.

Outstanding Legal Issues

On an ongoing basis, there are typically pending legal issues in which the System is involved. The System's management is of the opinion that the potential future settlement of these issues would not materially affect its financial statements taken as a whole.

Unfunded Capital Commitments – Investments

As of December 31, 2021, the System did not have any outstanding capital commitments.

7. Net Pension Asset of Participating Employers

The net pension asset was based on an actuarial valuation dated January 1, 2021, rolled forward to December 31, 2021.

Net Pension Asset of Employers

The components of the net pension asset of the participating employers at December 31, 2021 were as follows:

Total pension liability	$ 252,456,719
Plan fiduciary net position*	(299,927,669)
Employers' net pension asset	$ (47,470,951)
Plan fiduciary net position as a percentage of total pension asset	118.80%

** As of 12/31/21 $417,592 of the FY2020 appropriation remain unpaid. Since this would be paid after the measurement date, the remaining appropriation is included as a receivable. As of the time of this report, the receivable amounts have been paid.*

Actuarial Assumptions

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

Valuation date	1/1/2021
Actuarial cost method	Entry Age Normal Actuarial Cost Method
Remaining amortization period	0 years remaining
Actuarial assumptions:	
Investment rate of return	5.50%
Projected salary increases:	
Group 1 and 2	7.50% increase in years 1-7; 3.75% increase in all other years
Fire	9.00% increase for years 1-2; 6.00% increase in year 3; 4.00% increase in all other years
Police	9.00% increase for years 1-2; 5.00% increase for year 3; 7.00% increase for year 4; 3.75% increase in all other years
Inflation rate	3.00%
Post-retirement cost-of-living adjustment	3.00% increase on first $12,000
Mortality rates:	
Non-Disabled Retirees	RP-2014 table adjusted to 2006 and projected generationally with MP-2020 (sex-distinct)
Disabled Retirees	RP-2014 table adjusted to 2006 and projected generationally with MP-2020 (sex-distinct); set forward 2 years

Actuarial valuations of the ongoing Systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension asset are subject to continual revision, as actual results are compared with past expectations and new estimates are made about the future.

Changes of Assumptions

The 2021 valuation included new assumptions for mortality and COLA increases. The effect of these changes increased the liability by approximately $4.8 million.

Target Allocations

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 System's targeted asset allocation as of December 31, 2021, are summarized in the following table:

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
US Equity	24.00%	3.61%
International Equities	12.70%	3.70%
Emerging Equities	5.00%	5.95%
Hedged Equity	7.80%	3.02%
Core Bonds	15.10%	0.49%
Short-Term Fixed Income	0.00%	-0.19%
Treasury STRIPS	0.00%	-0.49%
TIPS/ILBs	0.00%	-0.29%
Value-Added Fixed Income	6.50%	3.70%
Private Equity	16.60%	7.31%
Real Estate	8.70%	3.31%
Timberland	2.90%	3.90%
Portfolio Completion (PCS)	0.60%	2.73%
Total	99.90%	

*Totals may not add due to rounding

Discount Rate

The discount rate used to measure the total pension asset was 5.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates by Statute. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the 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 Discount Rate

The following presents the net pension asset of the participating employers calculated using the discount rate of 5.50%, as well as what the participating employers' net pension asset would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current rate:

1% Decrease (4.50%)	Current Discount Rate (5.50%)	1% Increase (6.50%)
($16,029,257)	($47,470,951)	($73,692,394)

Deferred Outflows and Inflows of Resources

The following schedule reflects the deferred outflows and inflows of resources for the System for the year ended December 31, 2021:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 5,438,832	$ (1,338,673)
Changes of assumptions	-	(3,366,837)
Net difference between projected and actual investment earnings on pension plan investments	-	(42,562,574)
Changes in proportion and differences between employer contributions and proportionate share of contributions	491,540	(491,540)
Total	$ 5,930,372	$ (47,759,624)

The following summarizes changes in deferred outflows and inflows:

	Measurement Year	Amortization Period	Beginning Balance on Prior Measurement Period Deferrals	Current Measurement Period Additions	Amortization of Amounts Recognized in Current Period Pension Expense	End of Year Balance
Deferred Outflows of Resources						
Differences between expected and actual experience	2021	5.1	$ -	$ 2,580,046	$ (505,891)	$ 2,074,155
	2020	5.7	1,135,312	-	(241,557)	893,755
	2019	5.7	3,386,079	-	(915,157)	2,470,922
Changes in proportion and differences between employer contributions and proportionate share of contributions	2021	5.1	-	107,789	(21,135)	86,654
	2020	5.7	129,655	-	(27,586)	102,069
	2019	5.7	212,297	-	(57,378)	154,919
	2018	5.5	103,377	-	(41,353)	62,024
	2017	5.8	206,849	-	(114,915)	91,934
	2016	6.4	27,875	-	(19,915)	7,960
	2015	6.4	9,351	-	(23,371)	(14,020)
Total Deferred Outflows of Resources			5,210,795	2,687,835	(1,968,258)	5,930,372
Deferred Inflows of Resources						
Differences between expected and actual experience	2018	5.5	(1,437,816)	-	575,127	(862,689)
	2017	5.8	(1,070,964)	-	594,980	(475,984)
	2016	6.4	(9,012)	-	9,012	-
Changes of assumptions	2021	5.1	-	(1,300,779)	255,055	(1,045,724)
	2020	5.7	(2,746,721)	-	584,409	(2,162,312)
	2017	5.8	(357,301)	-	198,500	(158,801)
Net difference between projected and actual investment earnings on pension plan investments	2021	5.0	-	(36,299,270)	7,259,854	(29,039,416)
	2020	5.0	(12,418,041)	-	3,104,510	(9,313,531)
	2019	5.0	(13,027,153)	-	4,342,382	(8,684,771)
	2018	5.0	8,950,288	-	(4,475,144)	4,475,144
	2017	5.0	(4,134,192)	-	4,134,192	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	2021	5.1	-	(107,789)	21,135	(86,654)
	2020	5.7	(129,655)	-	27,586	(102,069)
	2019	5.7	(212,297)	-	57,378	(154,919)
	2018	5.4	(103,377)	-	41,353	(62,024)
	2017	6.0	(206,849)	-	114,915	(91,934)
	2016	6.0	(27,875)	-	19,915	(7,960)
	2015	5.9	(9,351)	-	23,371	14,020
Total Deferred Inflows of Resources			(26,940,316)	(37,707,838)	16,888,530	(47,759,624)
Total Collective Deferred Outflows/Inflows of Resources			$ (21,729,521)	$ (35,020,003)	$ 14,920,272	$ (41,829,252)

The following schedule reflects the amortization of the balance of deferred outflows and inflows of resources:

Fiscal Year*	Total
2023	$ (10,618,377)
2024	(14,171,173)
2025	(9,815,771)
2026	(7,249,015)
2027	25,084
	$ (41,829,252)

** Presented by member units' fiscal year to fairly present the fiduciary impact of related deferred outflows and inflows in the fiscal year affecting the member unit.*

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Required Supplementary Information
Schedule of Changes in the Net Pension Liability (Asset)

(Unaudited)

	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability								
Service cost	$ 6,814,302	$ 4,580,859	$ 4,673,416	$ 4,920,867	$ 4,743,004	$ 4,736,176	$ 4,564,989	$ 4,700,942
Interest	12,514,601	12,260,167	11,741,492	11,668,560	10,989,454	10,672,325	10,448,916	10,032,001
Changes of benefit terms	6,672,723	-	-	-	12,074,038	-	-	
Differences between expected and actual experience	2,580,046	1,376,867	5,216,392	(3,163,194)	(3,450,884)	-	(144,198)	-
Changes of assumptions	(1,300,779)	(3,331,130)	-	-	(1,151,302)	-	-	-
Benefit payments, including refunds of member contributions	(12,788,623)	(12,236,009)	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)	(8,876,028)
Other *	10,866,417	-	-	-	-	-	-	
Net change in total pension liability	25,356,687	2,650,754	9,650,761	1,701,263	12,859,661	6,267,682	6,975,900	5,856,915
Total pension liability - beginning	227,100,032	224,449,278	214,798,517	213,097,254	200,237,593	193,969,911	187,994,011	182,137,096
Total pension liability - ending (a)	252,456,719	227,100,032	224,449,278	214,798,517	213,097,254	200,237,593	193,969,911	187,994,011
Plan Fiduciary Net Position								
Contributions - employer	2,032,346	9,107,159	9,090,412	9,091,046	9,161,659	8,974,918	8,877,488	8,760,770
Contributions - member	3,261,106	3,208,913	3,181,668	2,964,737	2,812,073	2,803,801	2,629,443	2,890,151
Net investment income (loss)	50,242,794	28,131,871	32,355,125	(10,953,869)	30,376,424	15,094,672	(246,364)	9,301,503
Benefit payments, including refunds of member contributions	(12,788,623)	(12,236,009)	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)	(8,876,028)
Administrative expense	(192,518)	(154,807)	(153,606)	(148,557)	(151,361)	(140,546)	(159,267)	(116,936)
Net change in plan fiduciary net position	42,575,305	28,052,127	32,493,060	(10,771,594)	31,854,146	17,589,027	2,327,493	11,959,460
Plan fiduciary net position - beginning	257,352,364	229,300,237	196,807,177	207,578,771	175,724,625	158,135,598	155,808,105	143,848,645
Plan fiduciary net position - ending (b)	299,927,669	257,352,364	229,300,237	196,807,177	207,578,771	175,724,625	158,135,598	155,808,105
Net Pension Liability (Asset) - Ending (a-b)**	$ (47,470,951)	$ (30,252,332)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906

* The amount shown for "Other" refers to the effect of a member data correction which increased the liability by $10.9 million. The service costs reflects this correction.
** Total may not add due to rounding

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the System's financial statements for summary of actuarial methods and assumptions.

See Independent Auditor's Report.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedules of the Net Pension Liability (Asset), Contributions, and Investment Returns
Required Supplementary Information

(Unaudited)

	2021	2020	2019	2018	2017	2016	2015	2014
Schedule of Net Pension Liability								
Total pension liability	$ 252,456,419	$ 227,100,032	$ 224,449,278	$ 214,798,217	$ 213,097,254	$ 200,237,593	$ 193,969,911	$ 187,994,011
Plan fiduciary net position	(299,927,669)	(257,352,363)	(229,300,287)	(196,807,177)	(207,578,771)	(175,724,625)	(158,135,598)	(155,808,105)
Net pension liability (asset)*	$ (47,470,951)	$ (30,252,331)	$ (4,850,969)	$ 17,991,040	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906
Plan fiduciary net position as a percentage of the total pension liability (asset)	118.80%	113.32%	102.16%	91.62%	97.41%	87.76%	81.53%	82.88%
Calendar year covered payroll	$ 33,085,332	$ 33,425,615	$ 31,761,577	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Participating employer net pension liability (asset) as a percentage of covered payroll	143.44%	90.51%	15.27%	59.32%	18.07%	81.90%	125.02%	117.78%
Schedule of Contributions								
Actuarially determined contribution	$ 1,960,463	$ 9,074,412	$ 9,074,412	$ 9,074,412	$ 8,980,783	$ 8,890,538	$ 8,787,188	$ 8,687,572
Contributions in relation to the actuarially determined contribution	(2,052,546)	(9,107,159)	(9,090,412)	(9,091,045)	(9,161,659)	(8,974,919)	(8,877,488)	(8,760,770)
Contribution deficiency (excess)	$ (92,083)	$ (32,747)	$ (16,000)	$ (16,633)	$ (180,876)	$ (84,381)	$ (90,300)	$ (73,198)
Fiscal year covered payroll	$ 33,957,000	$ 34,327,000	$ 32,558,000	$ 31,059,000	$ 31,231,000	$ 30,586,000	$ 29,297,000	$ 27,890,000
Contributions as a percentage of covered payroll	6.04%	26.53%	27.92%	29.27%	29.34%	29.34%	30.30%	31.41%
Schedule of Investment Returns								
Annual money-weighted rate of return, net of investment expense	19.81%	12.22%	16.59%	-5.26%	17.32%	9.26%	1.29%	6.70%

*Total may not add due to rounding

Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the System's financial statements for summary of actuarial methods and assumptions.

See Independent Auditor's Report.

MELANSON

INDEPENDENT AUDITOR'S REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Opinion

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

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, and total pension expense for the total of all participating entities for the Leominster 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 responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Schedule section of our report. We are required to be independent of the Leominster Contributory Retirement 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 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 Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedules as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. 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 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 judgment made by a reasonable user based on the schedules.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment 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 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 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.

MELANSON

Restriction on Use

Our report is intended solely for the information and use of Leominster Contributory Retirement System management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2021 and is not intended to be and should not be used by anyone other than these specified parties.

Melanson

Greenfield, Massachusetts
January 23, 2023

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Employer Allocations

Employer	FY 2022 Actual Employer Contributions	Allocation Percentage
City of Leominster	$ 1,872,634	95.52%
Leominster Housing Authority	87,829	4.48%
Total	$ 1,960,463	100.00%

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Pension Amounts by Employer
As of and for the Year Ended December 31, 2021

	City of Leominster	Leominster Housing Authority	Total
Net Pension Liability (Asset)	$ (45,344,253)	$ (2,126,698)	$ (47,470,951)
Deferred Outflows of Resources			
Differences between expected and actual experience	$ 5,195,173	$ 243,659	$ 5,438,832
Changes in proportion and differences between employer contributions and proportionate share of contributions	402,695	88,845	491,540
Total Deferred Outflows of Resources	$ 5,597,868	$ 332,504	$ 5,930,372
Deferred Inflows of Resources			
Differences between expected and actual experience	$ 1,278,700	$ 59,973	$ 1,338,673
Changes of assumptions	3,216,004	150,833	3,366,837
Net difference between projected and actual investment earnings on pension plan investments	40,655,771	1,906,803	42,562,574
Changes in proportion and differences between employer contributions and proportionate share of contributions	328,683	162,857	491,540
Total Deferred Inflows of Resources	$ 45,479,158	$ 2,280,466	$ 47,759,624
Pension Expense			
Proportionate share of pension expense	$ 4,712,631	$ 221,028	$ 4,933,659
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(60,974)	60,974	-
Total Pension Expense	$ 4,651,657	$ 282,002	$ 4,933,659
Contributions			
Actuarially determined contribution	$ 1,872,634	$ 87,829	$ 1,960,463
Contributions made	(1,960,592)	(91,954)	(2,052,546)
Contribution deficiency (excess)	$ (87,958)	$ (4,125)	$ (92,083)
Contributions as a percentage of covered payroll	6.16%	7.27%	6.20%
Deferred Outflows and Inflows Recognized in Future Pension Expense			
June 30, 2023	$ (10,180,060)	$ (438,317)	$ (10,618,377)
June 30, 2024	(13,490,784)	(680,389)	(14,171,173)
June 30, 2025	(9,336,781)	(478,990)	(9,815,771)
June 30, 2026	(6,898,308)	(350,707)	(7,249,015)
June 30, 2027	24,645	439	25,084
Total Deferred Outflows and Inflows Recognized in Future Pension Expense	$ (39,881,288)	$ (1,947,964)	$ (41,829,252)
Discount Rate Sensitivity			
1% decrease (4.50%)	$ (15,311,146)	$ (718,111)	$ (16,029,257)
Current discount rate (5.50%)	$ (45,344,253)	$ (2,126,698)	$ (47,470,951)
1% increase (6.50%)	$ (70,390,975)	$ (3,301,419)	$ (73,692,394)
Covered Payroll	$ 31,831,025	$ 1,264,307	$ 33,095,332

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Financial Statements, Required Supplementary Information,
and Other Information
For the Year Ended December 31, 2020

(With Independent Auditors' Report Thereon)

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MELANSON

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

We have audited the accompanying financial statements of the Leominster Contributory Retirement System (the System), a component unit of the City of Leominster, Massachusetts, as of and for the year ended December 31, 2020, and the related notes to the financial statements, which collectively comprise the basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The System's 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.

Auditors' 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. 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 auditors' 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

Merrimack, New Hampshire
Andover, Massachusetts
Greenfield, Massachusetts
Ellsworth, Maine

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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 fiduciary net position of the Leominster Contributory Retirement System as of December 31, 2020, and the respective changes in fiduciary net 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 the Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of the Net Pension Liability, Contributions, and Investment Returns, listed in the foregoing table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the *Governmental Accounting Standards Board*, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Melanson

Greenfield, Massachusetts
January 31, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Leominster Contributory Retirement System (the System), we offer readers this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2020.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements are comprised of two components: (1) fund financial statements and (2) notes to financial statements. This report also contains other required supplementary information in addition to the basic financial statements themselves.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Fund accounting is used to ensure and demonstrate compliance with finance-related legal requirements.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position held in trust restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pensions changed during the year ended December 31, 2020. It reflects contributions by participating employers, active members, and external parties, investment activity, along with deductions for retirement benefits, refunds, transfers, and administrative expenses.

Notes to Financial Statements

The Notes to Financial Statements provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

The Required Supplementary Information includes this Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of Net Pension Liability, Contributions, and Investment Returns.

Financial Highlights

- The System's total net position restricted for pensions was $257,352,363 at December 31, 2020, a change of $28,052,126, or 12.23%, over the prior year. This change is primarily due to investment gains during the year.
- Employer and employee contributions to the plan were $12,564,074, which represents a $38,144 change over the prior year. The employer share of contributions represents 70.94% of the total contributions made to the System.
- Benefits paid to plan participants changed by $234,821 or 1.97%, totaling $12,144,640. At December 31, 2020, there were 431 retirees and beneficiaries in receipt of pension benefits, as further discussed on page 9.
- The System's funded ratio (based on the System's GASB 68 valuation) as of the January 1, 2020 actuarial valuation was 113.32%.

Financial Statement Analysis

The following is a summary of financial statement data for the current and prior fiscal years:

FIDUCIARY NET POSITION

	2020	2019
Assets		
Cash and receivables	$ 963,404	$ 23,646,686
Investments	256,389,496	205,661,347
Total Assets	257,352,900	229,308,033
Liabilities		
Accounts payable	537	7,796
Net Position		
Restricted for pensions	$ 257,352,363	$ 229,300,237

The System's total assets as of December 31, 2020 were $257,352,900 and were mostly comprised of investments. Total assets increased by $28,044,867, or 12.23%, from the prior year primarily due to an increase in investment value.

CHANGES IN FIDUCIARY NET POSITION

	2020	2019
Additions		
Contributions	$ 12,791,267	$ 12,821,064
Net investment income	28,150,736	32,383,780
Total Additions	40,942,003	45,204,844
Deductions		
Benefit payments	12,144,640	11,909,819
Other	745,237	801,964
Total Deductions	12,889,877	12,711,783
Changes in Net Position	28,052,126	32,493,061
Net Position Restricted for Pensions		
Beginning of Year	229,300,237	196,807,176
End of Year	$ 257,352,363	$ 229,300,237

The amount needed to finance benefits is accumulated through the collection of employers' and employee's contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA and through earnings on investments. Contributions and net investment income for calendar year 2020 resulted in a net gain of $40,942,003. Employers' contributions remained the same in calendar year 2020. The System had net investment income of $28,150,736 versus $32,383,780 in 2019, primarily due to slightly less favorable market results in 2020.

The primary deductions of the System include the payment of pension benefits to participants and beneficiaries, refunds and transfers of member contributions, reimbursement payments in accordance with Massachusetts General Law, Chapter 32, Section 3(8)c, more commonly referred to as 3(8)c reimbursements, and the costs of administering the System. Total deductions for calendar year 2020 were $12,889,877, which represents a change of $178,094, or 1.40%, over deductions of $12,711,783 in calendar year 2019. The payment of pension benefits changed by $234,821 or 1.97% over the previous year.

Return on Investment and Funding

The Leominster Contributory Retirement System Board continuously monitors investment performance at its monthly meetings. The money-weighted rate of return for the System's investments, as of December 31, 2020, was 12.22%.

Requests for Information

This financial report is designed to provide a general overview of the Leominster Contributory Retirement System's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to:

Leominster Contributory Retirement System

Ms. Erin Kelley, Retirement Administrator

25 West Street

Leominster, MA 01453

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Statement of Fiduciary Net Position
December 31, 2020

Assets	
Cash and short-term investments	$ 457,349
Investments in external investment pool	256,389,496
Accounts receivable	506,055
Total Assets	257,352,900
Liabilities	
Accounts payable	537
Net Position	
Restricted for Pensions	257,352,363
Total Net Position	$ 257,352,363

The accompanying notes are an integral part of these financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Statement of Changes in Fiduciary Net Position
For the Year Ended December 31, 2020

Additions		
Contributions:		
Employers	$	9,074,412
Plan members		3,489,662
Other systems and Commonwealth of Massachusetts		195,111
Other		32,082
Total Contributions		12,791,267
Investment income:		
Increase in fair value of investments		29,266,448
Less: management fees		(1,115,712)
Net investment income		28,150,736
Total Additions		40,942,003
Deductions		
Benefit payments to plan members, beneficiaries, and other systems		12,144,640
Refunds to plan members		321,089
Transfers to other systems		251,138
Administrative expenses		173,010
Total Deductions		12,889,877
Net Increase		28,052,126
Net Position Restricted for Pensions		
Beginning of Year		229,300,237
End of Year	$	257,352,363

The accompanying notes are an integral part of these financial statements.

1. Description of Plan

Substantially all employees of the City of Leominster (except teachers and administrators under contract employed by the School Department) and Leominster Housing Authority are members of the Leominster Contributory Retirement System (the System), a cost sharing, multiple employer public employee retirement system (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages, and benefits paid. The Leominster Contributory Retirement Board does not have the authority to amend benefit provisions.

Membership of the plan consisted of the following at January 1, 2020:

Inactive employees or beneficiaries currently receiving benefits	431
Inactive employees entitled to a return of contributions	255
Active plan members	665
Total	1,351
Number of participating employers	2

Participant Contributions

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of the Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the system. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of $30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 – present	9%

For those members entering a Massachusetts System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

Employer Contributions
Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

Participant Retirement Benefits
A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the Massachusetts System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are 4 classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 – General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 – Certain specified hazardous duty positions.
- Group 4 – Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left City employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2, respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

Methods of Payment

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A – Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.
- Option B – A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.
- Option C – A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

Participant Refunds

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

2. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

The System is a member of the Massachusetts Contributory Retirement Systems and is governed by Chapter 32 of the Massachusetts General Laws. Because of the significance of its operational and financial relationship with the Town, the System is included as a pension trust fund in the Town's basic financial statements. The System is governed by a five-member board. The five members include two appointed by the town, two elected by the members and retirees, and a fifth member chosen by the other four members with the approval of PERAC.

Summary of Significant Accounting Policies

The accounting policies of the System as reflected in the accompanying financial statements for the year ended December 31, 2020 conform to generally accepted accounting principles for public employee retirement systems (PERS). The more significant accounting policies of the System are summarized below:

Basis of Accounting

The System follows accounting policies mandated by the Commonwealth of Massachusetts. The accounting records are maintained on the accrual basis of accounting. Contributions from the City of Leominster and Leominster Housing Authority employees are recognized as revenue in the period in which employees provide services to the respective member unit.

Investments

Investment Policy

Investments are reported at fair value in accordance with PERAC requirements. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

Rate of Return

For the year ended December 31, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 12.22%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested throughout the year.

3. Cash and Short-Term Investments

Custodial Credit Risk – Deposits

Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned. Massachusetts General Law Chapter 32, Section 23, limits the System's deposits "in a bank or trust company to an amount not exceeding ten percent

of the capital and surplus of such bank or trust company." The System does not have a deposit policy for custodial credit risk.

As of December 31, 2020, none of the System's bank balance of $369,659 was exposed to custodial credit risk as uninsured or uncollateralized. Additionally, $137,834 was invested in a state external investment pool (MMDT), which is not subject to this disclosure.

4. Investments

All of the System's investments totaling $256,389,496 are in an external investment pool (PRIT).*

** Fair value is the same as the value of the pool share. The Pension Reserves Investment Trust (PRIT) was created under Massachusetts General Law, Chapter 32, Section 22, in December 1983. The Pension Reserves Investment Trust is operated under contract with a private investment advisor, approved by the Pension Reserves Investment Management Board. The Pension Reserves Investment Management Board shall choose an investment advisor by requesting proposals from advisors and reviewing such proposals based on criteria adopted under Massachusetts General Law, Chapter 30B.*

Credit Risk – Investments of Debt Securities

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Massachusetts General Law, Chapter 32, Section 23, limits the investment of System funds, to the extent not required for current disbursements, in the PRIT Fund or in securities, other than mortgages or collateral loans, which are legal for the investment of funds in savings banks under the laws of the Commonwealth, provided that no more than the established percentage of assets, is invested in any one security. The System does not have formal investment policies related to credit risk.

Due to their nature, none of the System's investments are subject to credit risk disclosure.

Custodial Credit Risk

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, the System will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The System does not have policies for custodial credit risk.

All of the System's investments of $256,389,496 are exempt from the custodial credit risk disclosure.

Investments in external investment pools and in open-end mutual funds are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form.

Concentration of Credit Risk
Concentration of credit risk is the risk of loss attributable to the magnitude of the System's investment in a single issuer. Massachusetts General Law Chapter 32, Section 23 limits the amount the System may invest in any one issuer or security type, with the exception of the PRIT Fund.

Investments issued or explicitly guaranteed by the external investment pools are excluded from concentration of credit disclosure.

All of the System's investments are exempt from concentration of credit risk disclosure.

Interest Rate Risk – Investments of Debt Securities
Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Information about the sensitivity of the fair values of the System's investments to market interest rate fluctuations is not applicable as all of the System's investments are immediately liquid.

Fair Value
The System categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application* (GASB 72).

Due to the nature of the System's investments, they are measured at net asset value.

The net asset value (NAV) per share is the amount of net assets attributable to each share of capital stock outstanding at the close of the period. Investments measured at the NAV for fair value are not subject to level classification.

Description	Value	Unfunded Commitments	Redemption Frequency (If currently eligible)	Redemption Notice Period
External investment pool: PRIT	$ 256,389,496	$ -	Monthly	30 Days

5. Accounts Receivable

Annually the Public Employee Retirement Administration (PERAC) determines the amount of employer contributions (pension appropriations) to be made to the System.

The accounts receivable balance primarily represents legal amounts due from employers for pension appropriation not received until after December 31, 2020.

6. Commitments and Contingencies

COVID-19

The COVID-19 outbreak in the United States (and across the globe) has resulted in economic uncertainties. There is considerable uncertainty around the duration and scope of the economic disruption. The extent of the impact of COVID-19 on our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, impact on individuals served by the System, employees, and vendors, all of which are uncertain and cannot be predicted. At this point, the extent to which COVID-19 may impact our financial condition or results of operations is uncertain.

Outstanding Legal Issues

On an ongoing basis, there are typically pending legal issues in which the System is involved. The System's management is of the opinion that the potential future settlement of these issues would not materially affect its financial statements taken as a whole.

Unfunded Capital Commitments – Investments

As of December 31, 2020, the System did not have any outstanding capital commitments.

7. Net Pension Asset of Participating Employers

The net pension asset was based on an actuarial valuation dated January 1, 2020, and rolled forward to December 31, 2020.

Net Pension Asset of Employers

The components of the net pension asset of the participating employers at December 31, 2020 were as follows:

Total pension liability	$ 227,100,032
Plan fiduciary net position	(257,352,363)
Employers' net pension asset	$ (30,252,331)
Plan fiduciary net position as a percentage of total pension asset	113.32%

Actuarial Assumptions

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

Valuation date	1/1/2020
Actuarial cost method	Entry Age Normal Actuarial Cost Method
Remaining amortization period	0 years remaining
Actuarial assumptions:	
Investment rate of return	5.50%
Projected salary increases:	
Group 1 and 2	7.50% increase in years 1 -7 ; 3.75% increase in all other years
Fire	9.00% increase for years 1-2; 6.00% increase in year 3; 4.00% increase in all other years
Police	9.00% increase for years 1-2; 5.00% increase for year 3; 7.00% increase for year 4; 3.75% increase in all other years
Inflation rate	3.00%
Post-retirement cost-of-living adjustment	2.00% increase on first $12,000
Mortality rates:	
Non-Disabled Retirees	RP-2014 table adjusted to 2006 and projected generationally with MP-2019 (sex-distinct)
Disabled Retirees	RP-2014 table adjusted to 2006 and projected generationally with MP-2019 (sex-distinct); set forward 2 years

Actuarial valuations of the ongoing Systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension asset are subject to continual revision, as actual results are compared with past expectations and new estimates are made about the future.

Changes of Assumptions

The mortality table used in the most recent valuation was updated from the MP-2016 table to MP-2019. This change decreased the System's total liability by approximately $2.8 million. The salary increase assumption was decreased from 4.00% to 3.75% in the current valuation. This decreased the System's total liability by approximately $274,000.

Target Allocations

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 System's targeted asset allocation as of December 31, 2020, are summarized in the following table:

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
US Equity	13.00%	4.11%
International Equities	13.00%	4.31%
Emerging Equities	5.00%	6.07%
Hedged Equity	8.00%	3.42%
Core Bonds	6.00%	0.49%
Short-Term Fixed Income	2.00%	-0.20%
Treasury STRIPS	3.00%	-0.49%
TIPS/ILBs	4.00%	-0.10%
Value-Added Fixed Income	8.00%	3.91%
Private Equity	14.00%	7.83%
Real Estate	10.00%	3.72%
Timberland	4.00%	4.31%
Portfolio Completion (PCS)	10.00%	2.94%
Total	100.00%	

Discount Rate

The discount rate used to measure the total pension asset was 5.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates by Statute. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the 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 Discount Rate

The following presents the net pension asset of the participating employers calculated using the discount rate of 5.50%, as well as what the participating employers' net pension asset would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current rate:

1% Decrease (4.50%)	Current Discount Rate (5.50%)	1% Increase (6.50%)
($3,368,640)	($30,252,331)	($52,845,806)

Deferred Outflows and Inflows of Resources

The following schedule reflects the deferred outflows and inflows of resources for the System for the year ended December 31, 2020:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 4,521,390	$ (2,517,792)
Changes of assumptions	-	(3,104,022)
Net difference between projected and actual investment earnings on pension plan investments	-	(20,629,098)
Changes in proportion and differences between employer contributions and proportionate share of contributions	689,404	(689,404)
Total	$ 5,210,794	$ (26,940,316)

The following summarizes changes in deferred outflows and inflows:

	Measurement Year	Amortization Period	Beginning Balance on Prior Measurement Period Deferrals	Current Measurement Period Additions	Amortization of Amounts Recognized in Current Period Pension Expense	End of Year Balance
Deferred Outflows of Resources						
Differences between expected and actual experience	2020	5.7	$ -	$ 1,376,866	$ (241,555)	$ 1,135,311
	2019	5.7	4,301,236	-	(915,157)	3,386,079
Changes in proportion and differences between employer contributions and proportionate share of contributions	2020	5.7	-	157,241	(27,586)	129,655
	2019	5.7	269,675	-	(57,378)	212,297
	2018	5.5	144,730	-	(41,353)	103,377
	2017	5.8	321,764	-	(114,915)	206,849
	2016	6.4	47,790	-	(19,915)	27,875
	2015	6.4	32,722	-	(23,371)	9,351
Total Deferred Outflows of Resources			5,117,917	1,534,107	(1,441,230)	5,210,794
Deferred Inflows of Resources						
Differences between expected and actual experience	2018	5.5	(2,012,942)	-	575,126	(1,437,816)
	2017	5.8	(1,665,944)	-	594,980	(1,070,964)
	2016	6.4	(31,543)	-	22,531	(9,012)
Changes of assumptions	2020	5.7	-	(3,331,130)	584,409	(2,746,721)
	2017	5.8	(555,801)	-	198,500	(357,301)
Net difference between projected and actual investment earnings on pension plan investments	2020	5.0	-	(15,522,551)	3,104,510	(12,418,041)
	2019	5.0	(17,369,540)	-	4,342,387	(13,027,153)
	2018	5.0	13,425,431	-	(4,475,143)	8,950,288
	2017	5.0	(8,268,378)	-	4,134,186	(4,134,192)
	2016	5.0	(1,265,723)	-	1,265,723	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	2020	5.7	-	(157,241)	27,586	(129,655)
	2019	5.7	(269,675)	-	57,378	(212,297)
	2018	5.4	(144,730)	-	41,353	(103,377)
	2017	6.0	(321,764)	-	114,915	(206,849)
	2016	6.0	(47,790)	-	19,915	(27,875)
	2015	5.9	(32,722)	-	23,371	(9,351)
Total Deferred Inflows of Resources			(18,561,121)	(19,010,922)	10,631,727	(26,940,316)
Total Collective Deferred Outflows/Inflows of Resources			$ (13,443,204)	$ (17,476,815)	$ 9,190,497	$ (21,729,522)

The following schedule reflects the amortization of the balance of deferred outflows and inflows of resources:

Fiscal Year*	Total
2021	$ (7,911,255)
2022	(3,609,360)
2023	(7,162,155)
2024	(2,806,754)
2025	(239,998)
	$ (21,729,522)

** Presented by member units' fiscal year to fairly present the fiduciary impact of related deferred outflows and inflows in the fiscal year affecting the member unit.*

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Changes in the Net Pension Liability
Required Supplementary Information

(Unaudited)

	2020	2019	2018	2017	2016	2015
Total Pension Liability						
Service cost	$ 4,580,859	$ 4,673,416	$ 4,920,867	$ 4,743,004	$ 4,736,176	$ 4,564,989
Interest	12,260,167	11,741,492	11,668,560	10,989,454	10,677,325	10,348,916
Changes of benefit terms	-	-	-	12,074,038	-	-
Differences between expected and actual experience	1,376,867	5,216,392	(3,163,194)	(3,450,884)	-	(144,198)
Changes of assumptions	(3,331,130)	-	-	(1,151,302)	-	-
Benefit payments, including refunds of member contributions	(12,236,009)	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)
Net change in total pension liability	2,650,754	9,650,761	1,701,263	12,859,661	6,267,682	5,975,900
Total pension liability - beginning	224,449,278	214,798,517	213,097,254	200,237,593	193,969,911	187,994,011
Total pension liability - ending (a)	227,100,032	224,449,278	214,798,517	213,097,254	200,237,593	193,969,911
Plan Fiduciary Net Position						
Contributions - employer	9,107,159	9,090,412	9,091,045	9,161,659	8,974,919	8,877,488
Contributions - member	3,203,912	3,181,668	2,964,757	2,812,073	2,805,801	2,629,443
Net investment income (loss)	28,131,871	32,355,125	(10,953,869)	30,376,424	15,094,672	(246,364)
Benefit payments, including refunds of member contributions	(12,236,009)	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)
Administrative expense	(154,807)	(153,606)	(148,557)	(151,361)	(140,546)	(139,267)
Net change in plan fiduciary net position	28,052,126	32,493,060	(10,771,594)	31,854,146	17,589,027	2,327,493
Plan fiduciary net position - beginning	229,300,237	196,807,177	207,578,771	175,724,625	158,135,598	155,808,105
Plan fiduciary net position - ending (b)	257,352,363	229,300,237	196,807,177	207,578,771	175,724,625	158,135,598
Net Pension Liability (Asset) - Ending (a-b)	$ (30,252,331)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedules of the Net Pension Liability, Contributions, and Investment Returns
Required Supplementary Information

(Unaudited)

	2020	2019	2018	2017	2016	2015	2014
Schedule of Net Pension Liability							
Total pension liability	$ 227,100,032	$ 224,449,278	$ 214,798,517	$ 213,097,254	$ 200,237,593	$ 193,969,911	$ 187,994,011
Plan fiduciary net position	(257,352,363)	(229,300,237)	(196,807,177)	(207,578,771)	(175,724,625)	(158,135,598)	(155,808,105)
Net pension liability (asset)	$ (30,252,331)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906
Plan fiduciary net position as a percentage of the total pension liability (asset)	113.32%	102.16%	91.62%	97.41%	87.76%	81.53%	82.88%
Calendar year covered payroll	$ 33,425,615	$ 31,761,577	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Participating employer net pension liability (asset) as a percentage of covered payroll	90.51%	15.27%	59.32%	18.07%	81.90%	125.02%	117.78%
Schedule of Contributions							
Actuarially determined contribution	$ 9,074,412	$ 9,074,412	$ 9,074,412	$ 8,980,783	$ 8,890,538	$ 8,787,188	$ 8,687,572
Contributions in relation to the actuarially determined contribution	(9,107,159)	(9,090,412)	(9,091,045)	(9,161,659)	(8,974,919)	(8,877,488)	(8,760,770)
Contribution deficiency (excess)	$ (32,747)	$ (16,000)	$ (16,633)	$ (180,876)	$ (84,381)	$ (90,300)	$ (73,198)
Fiscal year covered payroll	$ 34,327,000	$ 32,558,000	$ 31,059,000	$ 31,231,000	$ 30,586,000	$ 29,297,000	$ 27,890,000
Contributions as a percentage of covered payroll	26.53%	27.92%	29.27%	29.34%	29.34%	30.30%	31.41%
Schedule of Investment Returns							
Annual money weighted rate of return, net of investment expense	12.22%	16.59%	-5.26%	17.32%	9.26%	1.29%	6.70%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

MELANSON

INDEPENDENT AUDITORS' REPORT

To the Leominster Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Report on Schedules

We have audited the accompanying schedule of employer allocations of the Leominster Contributory Retirement System as of and for the year ended December 31, 2020. We have also audited the total for all entities of the specified totals titled net pension liability (asset), total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified totals) included in the accompanying schedule of pension amounts by employer of the Leominster Contributory Retirement System as of and for the year ended December 31, 2020.

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.

Auditors' Responsibility
Our responsibility is to express opinions on the schedule of employer allocations and the specified 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 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 specified 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 specified 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 specified 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 specified 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 (asset), total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for the Leominster 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.

Restriction on Use

Our report is intended solely for the information and use of Leominster Contributory Retirement System management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2020 and is not intended to be and should not be used by anyone other than these specified parties.

Melanson

Greenfield, Massachusetts
January 31, 2022

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Employer Allocations

Employer	FY 2021 Actual Employer Contributions	Allocation Percentage
City of Leominster	$ 8,705,083	95.93%
Leominster Housing Authority	369,329	4.07%
Total	$ 9,074,412	100.00%

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Pension Amounts by Employer
As of and for the Year Ended December 31, 2020

	City of Leominster	Leominster Housing Authority	Total
Net Pension Liability (Asset)	$ (29,021,061)	$ (1,231,270)	$ (30,252,331)
Deferred Outflows of Resources			
Differences between expected and actual experience	$ 4,337,369	$ 184,021	$ 4,521,390
Changes of assumptions	-	-	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	485,348	204,056	689,404
Total Deferred Outflows of Resources	$ 4,822,717	$ 388,077	$ 5,210,794
Deferred Inflows of Resources			
Differences between expected and actual experience	$ 2,415,317	$ 102,475	$ 2,517,792
Net difference between projected and actual investment earnings on pension plan investments	2,977,688 19,789,493	126,334 839,605	3,104,022 20,629,098
Changes in proportion and differences between employer contributions and proportionate share of contributions	507,253	182,151	689,404
Total Deferred Inflows of Resources	$ 25,689,751	$ 1,250,565	$ 26,940,316
Pension Expense			
Proportionate share of pension expense	$ (7,681,976)	$ (325,921)	$ (8,007,897)
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(74,058)	74,058	-
Total Pension Expense	$ (7,756,034)	$ (251,863)	$ (8,007,897)
Contributions			
Actuarially determined contribution	$ 8,705,083	$ 369,329	$ 9,074,412
Contributions made	(8,736,497)	(370,662)	(9,107,159)
Contribution deficiency (excess)	$ (31,414)	$ (1,333)	$ (32,747)
Contributions as a percentage of covered payroll	27.22%	27.91%	27.25%
Deferred Outflows/Inflows Recognized in Future Pension Expense			
June 30, 2021	$ (7,657,093)	$ (254,162)	$ (7,911,255)
June 30, 2022	(3,506,696)	(102,664)	(3,609,360)
June 30, 2023	(6,831,987)	(330,168)	(7,162,155)
June 30, 2024	(2,660,128)	(146,626)	(2,806,754)
June 30, 2025	(211,131)	(28,867)	(239,998)
Total Deferred Outflows/Inflows Recognized in Future Pension Expense	$ (20,867,035)	$ (862,487)	$ (21,729,522)
Discount Rate Sensitivity			
1% decrease (5.50%)	$ (3,231,536)	$ (137,104)	$ (3,368,640)
Current discount rate (4.50%)	$ (29,021,061)	$ (1,231,270)	$ (30,252,331)
1% increase (6.50%)	$ (50,694,983)	$ (2,150,823)	$ (52,845,806)
Covered Payroll	$ 32,097,665	$ 1,327,951	$ 33,425,616

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Financial Statements,
Required Supplementary Information,
and Other Information

For the Year Ended December 31, 2019

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MELANSON

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

We have audited the accompanying financial statements of the Leominster Contributory Retirement System (the System), a component unit of the City of Leominster, Massachusetts, as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements
The System's 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.

Auditors' 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. 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 auditors' 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 City'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 City'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.

Merrimack, New Hampshire
Andover, Massachusetts
Greenfield, Massachusetts
Ellsworth, Maine

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MELANSON

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 fiduciary net position of the Leominster Contributory Retirement System as of December 31, 2019, and the respective changes in fiduciary net 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 the Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of Net Pension Liability, Contributions, and Investment Returns, listed in the foregoing table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Melanson

Andover, Massachusetts
July 28, 2021

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Leominster Contributory Retirement System (the System), we offer readers this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2019.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements are comprised of two components: (1) fund financial statements and (2) notes to financial statements. This report also contains required and other supplementary information in addition to the basic financial statements themselves.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Fund accounting is used to ensure and demonstrate compliance with finance-related legal requirements.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position held in trust restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pensions changed during the year ended December 31, 2019. It reflects contributions by members and participating employers, investment activity, along with deductions for retirement benefits, refunds, transfers, and administrative expenses.

Notes to Financial Statements

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

The Required Supplementary Information includes this Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of Net Pension Liability, Contributions, and Investment Returns.

Financial Highlights

- The System's total net position restricted for pensions was $229,300,237 at December 31, 2019.

- The System's net position increased by $32,493,061, which is primarily due to investment income during the year.
- Employer and employee contributions to the plan were $12,525,930, which represents a $333,975 increase compared to the prior year. The employer share of contributions represents 70.78% of the total contributions made to the System.
- Benefits paid to plan participants increased by $724,333 or 6.48%, totaling $11,909,819. At December 31, 2019, there were 422 retirees and beneficiaries in receipt of pension benefits, as further discussed on page 9.
- The System's funded ratio (based on the System's GASB 68 as of December 31, 2019) was 102.2%.

Financial Statement Analysis

The following is a summary of financial statement data for the current and prior fiscal years (in thousands):

FIDUCIARY NET POSITION

	2019	2018
Assets		
Cash and receivables	$ 23,647	$ 501
Investments	205,661	196,313
Total Assets	229,308	196,814
Liabilities		
Accounts payable	8	6
Total Liabilities	8	6
Net Position		
Restricted for Pensions	$ 229,300	$ 196,808

The System's total assets as of December 31, 2019 were $229,308,033 and were comprised of cash and investments and receivables. Total assets increased by $32,494,142 or 16.51%, from the prior year primarily due to an increase in investment value.

CHANGES IN FIDUCIARY NET POSITION

	2019	2018
Additions		
Contributions	$ 12,821	$ 12,522
Investment income (loss), net	32,384	(10,920)
Total Additions	45,205	1,602
Deductions		
Benefit payments	11,910	11,185
Other	802	1,189
Total Deductions	12,712	12,374
Change in Net Position	32,493	(10,772)
Net Position Restricted for Pensions		
Beginning of Year	196,807	207,579
End of Year	$ 229,300	$ 196,807

The amount needed to finance benefits is accumulated through the collection of employers' and employee's contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA and through earnings on investments. Contributions and net investment income for calendar year 2019 resulted in total additions of $45,204,844. The System had net investment income of $32,383,780 versus net investment loss of $(10,920,207) in 2018, primarily due to the market performing favorably in calendar year 2019.

The primary deductions of the System include the payment of pension benefits to participants and beneficiaries, refunds and transfers of member contributions, reimbursement payments in accordance with Massachusetts General Law, Chapter 32, Section 3(8)c, more commonly referred to as 3(8)c reimbursements, and the costs of administering the System. Total deductions for calendar year 2019 were $12,711,783, which represents an increase of $338,510, or 2.74%, over deductions of $12,373,273 in calendar year 2018. The payment of pension benefits increased by $724,333 or 6.48%, over the previous year.

Requests for Information

This financial report is designed to provide a general overview of the Leominster Contributory Retirement System's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to:

Ms. Erin Kelley, Administrator
Leominster Contributory Retirement System
25 West Street
Leominster, MA 01453

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Statement of Fiduciary Net Position

December 31, 2019

Assets	
Cash and short-term investments	$ 16,884,301
Investments:	
External investment pool	205,661,347
Accounts receivable	6,762,385
Total Assets	229,308,033
Liabilities	
Accounts payable	7,796
Net Position	
Restricted for pensions purposes	$ 229,300,237

The accompanying notes are an integral part of these financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Statement of Changes in Fiduciary Net Position

For the Year Ended December 31, 2019

Additions		
Contributions:		
Employers	$	9,074,412
Plan members		3,451,518
Other systems and the Commonwealth of Massachusetts		279,134
Other		16,000
Total Contributions		12,821,064
Investment income		
(Depreciation) in fair value of investments		33,530,759
Less: management fees		(1,146,979)
Net Investment Income		32,383,780
Total Additions		45,204,844
Deductions		
Benefit payments to plan members and beneficiaries		11,909,819
Refunds to plan members		126,242
Transfers to other systems		493,517
Administrative expenses		182,205
Total Deductions		12,711,783
Net Increase		32,493,061
Net Position Restricted for Pensions		
Beginning of Year		196,807,176
End of Year	$	229,300,237

The accompanying notes are an integral part of these financial statements.

1. Description of Plan

Substantially all employees of the City of City of Leominster (except teachers and administrators under contract employed by the School Department) and the Leominster Housing Authority are members of the Leominster Contributory Retirement System (the System), a cost sharing, multiple employer public employee retirement system (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages, and benefits paid. The Leominster Contributory Retirement Board does not have the authority to amend benefit provisions.

Membership of the plan consisted of the following at January 1, 2019:

Retirees and beneficiaries receiving benefits	422
Inactive members entitled to a return of employee contributions	237
Active plan members	650
Total	1,309
Number of participating employers	2

Participant Contributions

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of the Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the system. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of $30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 – present	9%

For those members entering a Massachusetts System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

Employer Contributions
Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

Participant Retirement Benefits
A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the Massachusetts System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are 4 classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 – General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 – Certain specified hazardous duty positions.
- Group 4 – Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left City employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2, respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

Methods of Payment

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A – Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.
- Option B – A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.
- Option C – A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

Participant Refunds

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

2. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

The System is a member of the Massachusetts Contributory Retirement Systems and is governed by Chapter 32 of the Massachusetts General Laws. Because of the significance of its operational and financial relationship with the City, the System is included as a pension trust fund in the City's basic financial statements. The System is governed by a 5-member board. The 5 members include 2 appointed by the city, 2 elected by the members and retirees, and a 5th member chosen by the other 4 members with the approval of PERAC.

Summary of Significant Accounting Policies

The accounting policies of the System as reflected in the accompanying financial statements for the year ended December 31, 2019 conform to generally accepted accounting principles for public employee retirement systems (PERS). The significant accounting policies of the System are summarized below:

Basis of Accounting

The System follows accounting policies mandated by the Commonwealth of Massachusetts. The accounting records are maintained on the accrual basis of accounting. Contributions from the City of Leominster and Leominster Housing Authority employees are recognized as revenue in the period in which employees provide services to the respective member unit.

Investments

Investment Policy

Investments are reported at fair value in accordance with PERAC requirements. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

Rate of Return

For the year ended December 31, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 16.59%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested throughout the year.

3. Cash and Short-Term Investments

Custodial Credit Risk – Deposits

Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned. Massachusetts General Law Chapter 32, Section 23, limits the System's deposits "in a bank or trust company to an amount not exceeding ten percent

of the capital and surplus of such bank or trust company." The System does not have a deposit policy for custodial credit risk.

As of December 31, 2019, none of the System's bank balances of $16,900,754 was exposed to custodial credit risk as uninsured or uncollateralized, and collateral held by pledging bank's trust department not in the System's name.

4. Investments

The System's investments of $205,661,347, as of December 31, 2019 were held in the Pension Reserves Investment Trust (PRIT)*.

** Fair value is the same as the value of the pool share. PRIT was created under Massachusetts General Law (MGL), Chapter 32, Section 22, in December 1983. PRIT is operated under contract with a private investment advisor, approved by the Pension Reserves Investment Management Board (PRIM). PRIM shall choose an investment advisor by requesting proposals from advisors and reviewing such proposals based on criteria adopted under MGL, Chapter 30B.*

Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Massachusetts General Law, Chapter 32, Section 23, limits the investment of System funds, to the extent not required for current disbursements, in the PRIT Fund or in securities, other than mortgages or collateral loans, which are legal for the investment of funds in savings banks under the laws of the Commonwealth, provided that no more than the established percentage of assets, is invested in any one security.

The System's investments in PRIT are unrated.

Custodial Credit Risk

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The System does not have a formal policy for custodial credit risk but manages custodial credit risk through diversification and the "prudent person" principles outlined in PERAC guidelines.

All the System's investments of $205,661,347 are exempt from custodial risk disclosure.

Investments in external/State investment pools are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form.

Concentration of Credit Risk

Massachusetts General Law Chapter 32, Section 23 limits the amount the System may invest in any one issuer or security type, with the exception of the PRIT Fund.

Investments in external investment pools are excluded from concentration of credit disclosure.

Interest Rate Risk
Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Information about the sensitivity of the fair values of the System's investments to market interest rate fluctuations is not available as all of the System's investments are highly liquid.

Foreign Currency Risk
Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The System does not have a formal investment policy related to foreign currency risk.

Fair Value
The System measures its fair value of investments based on net asset value (NAV) established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application* (GASB 72).

The net asset value (NAV) per share is the amount of net assets attributable to each share of capital stock outstanding at the close of the period. Investments measured at the NAV for fair value are not subject to level classification.

The System has the following fair value measurements as of December 31, 2019:

Description	Amount	Unfunded Commitments	Redemption Frequency (If currently eligible)	Redemption Notice Period
Investments measured at the net asset value (NAV):				
External investment pool	$ 205,661,347	$ -	Monthly	30 Days

5. Accounts Receivable

Annually the Public Employee Retirement Administration (PERAC) determines the amount of employer contributions (pension appropriations) to be made to the System. The accounts receivable balance primarily represents legal amounts due from employers for pension appropriation not received until after December 31, 2019.

6. Accounts Payable

This balance represents calendar year 2019 expenditures paid after December 31, 2019.

7. Commitments and Contingencies

COVID-19

The COVID-19 outbreak in the United States (and across the globe) has resulted in economic uncertainties. There is considerable uncertainty around the duration and scope of the economic disruption. The extent of the impact of COVID-19 on our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, impact on individuals served by the System, employees, and vendors, all of which are uncertain and cannot be predicted. At this point, the extent to which COVID-19 may impact our financial condition or results of operation remains uncertain.

Outstanding Legal Issues

On an ongoing basis, there are typically pending legal issues in which the System is involved. The System's management is of the opinion that the potential future settlement of these issues would not materially affect its financial statements taken as a whole.

8. Net Pension Liability of Participating Employers

The net pension liability was based on an actuarial valuation dated January 1, 2019 and rolled forward to December 31, 2019.

Net Pension Liability of Employers

The components of the net pension liability of the participating employers at December 31, 2019 were as follows:

Total pension liability	$ 224,449,278
Plan fiduciary net position	(229,300,237)
Employers' net pension asset	$ (4,850,959)
Plan fiduciary net position as a percentage of total pension asset	102.16%

Actuarial Assumptions

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

Valuation date	1/1/2019
Actuarial cost method	Entry Age Normal Cost Method
Remaining amortization period	0 years remaining from the 5-year schedule. The maximum period allowed is 11 years.
Actuarial assumptions:	
Investment rate of return	5.50%
Projected salary increases	3.75%
Inflation rate	3.00%
Post-retirement cost-of-living adjustment	2% increase on first $12,000

Actuarial valuations of the ongoing Systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision, as actual results are compared with past expectations and new estimates are made about the future.

Mortality rates were based on the RP-2014 table adjusted to 2006 and projected generationally with MP-2019.

Target Allocations

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 System's targeted asset allocation as of December 31, 2019, are summarized in the following table.

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
US Equity	13.00%	4.29%
International Equities	13.00%	4.39%
Emerging Equities	5.00%	6.54%
Hedged Equity	8.00%	3.61%
Core Bonds	6.00%	0.88%
Short-Term Fixed Income	2.00%	0.59%
20+ Yr. Treasury STRIPS	3.00%	0.00%
TIPS	4.00%	0.20%
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 (PCS)	11.00%	3.22%
Total	100.00%	

Discount Rate

The discount rate used to measure the total pension liability was 5.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates by Statute. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the 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 Discount Rate

The following presents the net pension liability of the participating employers calculated using the discount rate of 5.50%, as well as what the participating employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage-point higher than the current rate:

1% Decrease (4.5%)	Current Discount Rate (5.5%)	1% Increase (6.5%)
$25,151,412	($4,850,959)	($25,617,643)

Deferred Outflows/(Inflows) of Resources

The following schedule reflects the deferred outflows/(inflows) of resources for the System for the year ended December 31, 2019:

	Deferred Outflows of Resources	Deferred (Inflows) of Resources
Differences between expected and actual experience	$ 4,301,236	$ (3,710,429)
Changes of assumptions	-	(555,801)
Net difference between projected and actual investment earnings on pension plan investments	-	(13,478,210)
Changes in proportion and differences between employer contributions and proportionate share of contributions	816,681	(816,681)
Total	$ 5,117,917	$ (18,561,121)

The following summarizes changes in deferred outflows/(inflows):

	Measurement Year	Amortization Period	Beginning Balance on Prior Measurement Period Deferrals	Current Measurement Period Additions	Amortization of Amounts Recognized in Current Period Pension Expense	End of Year Balance
Deferred Outflows of Resources						
Difference between expected and actual experience:	2019	5.7	-	5,216,392	(915,156)	4,301,236
Change in proportion and difference between employer contributions and proportionate share of contributions:	2019	5.7	-	327,053	(57,378)	269,675
	2018	5.5	186,083	-	(41,353)	144,730
	2017	5.8	436,679	-	(114,915)	321,764
	2016	6.4	67,702	-	(19,912)	47,790
	2015	6.4	56,093	-	(23,371)	32,722
Total Deferred Outflows of Resources			746,557	5,543,445	(1,172,085)	5,117,917
Deferred (Inflows) of Resources						
Difference between expected and actual experience:	2018	5.5	(2,588,068)	-	575,126	(2,012,942)
	2017	5.8	(2,260,924)	-	594,980	(1,665,944)
	2015	6.4	(54,074)	-	22,531	(31,543)
Net differences between projected and actual earnings on pension plan investments:	2019	5.0	-	(21,711,927)	4,342,387	(17,369,540)
	2018	5.0	17,900,574	-	(4,475,143)	13,425,431
	2017	5.0	(12,402,564)	-	4,134,186	(8,268,378)
	2016	5.0	(2,531,447)	-	1,265,724	(1,265,723)
	2015	5.0	1,777,319	-	(1,777,319)	-
Change of assumptions	2017	5.8	(754,301)	-	198,500	(555,801)
Change in proportion and difference between employer contributions and proportionate share of contributions:	2019	5.7	-	(327,053)	57,378	(269,675)
	2018	5.5	(186,083)	-	41,353	(144,730)
	2017	5.8	(436,679)	-	114,915	(321,764)
	2016	6.4	(67,702)	-	19,912	(47,790)
	2015	6.4	(56,093)	-	23,371	(32,722)
Total Deferred (Inflows) of Resources			(1,660,042)	(22,038,980)	5,137,901	(18,561,121)
Total Collective Deferred Outflows (Inflows) of Resources			$ (913,485)	$ (16,495,535)	$ 3,965,816	$ (13,443,204)

The following schedule reflects the amortization of the balance of deferred outflows/(inflows) of resources:

Fiscal Year	Total
2021	$ (5,743,132)
2022	(4,463,892)
2023	(161,998)
2024	(3,714,795)
2025	640,613
	$ (13,443,204)

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Required Supplementary Information

Schedule of Changes in the Net Pension Liability

(Unaudited)

	2019	2018	2017	2016	2015
Total Pension Liability					
Service cost	$ 4,673,416	$ 4,920,867	$ 4,743,004	$ 4,736,176	$ 4,564,989
Interest	11,741,492	11,668,560	10,989,454	10,677,325	10,348,916
Changes of benefit terms	-	-	12,074,038	-	-
Differences between expected and actual experience	5,216,392	(3,163,194)	(3,450,884)	-	(144,198)
Changes of assumptions	-	-	(1,151,302)	-	-
Benefit payments, including refunds of member contributions	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)
Net Change in Total Pension Liability	9,650,761	1,701,263	12,859,661	6,267,682	5,975,900
Total Pension Liability - Beginning	214,798,517	213,097,254	200,237,593	193,969,911	187,994,011
Total Pension Liability - Ending (a)	$ 224,449,278	$ 214,798,517	$ 213,097,254	$ 200,237,593	$ 193,969,911
Plan Fiduciary Net Position*					
Contributions - employer	$ 9,090,412	$ 9,091,045	$ 9,161,659	$ 8,974,919	$ 8,877,488
Contributions - member	3,181,668	2,964,757	2,812,073	2,805,801	2,629,443
Net investment income (loss)	32,355,125	(10,953,869)	30,376,424	15,094,672	(246,364)
Benefit payments, including refunds of member contributions	(11,980,539)	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)
Administrative expense	(153,606)	(148,557)	(151,361)	(140,546)	(139,267)
Net Change in Plan Fiduciary Net Position	32,493,060	(10,771,594)	31,854,146	17,589,027	2,327,493
Plan Fiduciary Net Position - Beginning	196,807,177	207,578,771	175,724,625	158,135,598	155,808,105
Plan Fiduciary Net Position - Ending (b)	$ 229,300,237	$ 196,807,177	$ 207,578,771	$ 175,724,625	$ 158,135,598
Net Pension Liability (Asset) - Ending (a-b)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313

* Reflects certain classification differences from page 8.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Required Supplementary Information

Schedules of Net Pension Liability, Contributions, and Investment Returns

(Unaudited)

Schedule of Net Pension Liability	2019	2018	2017	2016	2015	2014
Total pension liability	$ 224,449,278	$ 214,798,517	$ 213,097,254	$ 200,237,593	$ 193,969,911	$ 187,994,011
Plan fiduciary net position	(229,300,237)	(196,807,177)	(207,578,771)	(175,724,625)	(158,135,598)	(155,808,105)
Net pension liability (asset)	$ (4,850,959)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906
Plan fiduciary net position as a percentage of the total pension liability (asset)	102.16%	91.62%	97.41%	87.76%	81.53%	82.88%
Covered payroll	$ 31,761,577	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Participating employer net pension liability (asset) as a percentage of covered payroll	-15.27%	59.32%	18.07%	81.90%	125.02%	117.78%

Schedule of Contributions	2019	2018	2017	2016	2015	2014
Actuarially determined contribution	$ 9,074,412	$ 9,074,412	$ 8,980,783	$ 8,890,538	$ 8,787,188	$ 8,687,572
Contributions in relation to the actuarially determined contribution	(9,090,412)	(9,091,045)	(9,161,659)	(8,974,919)	(8,877,488)	(8,760,770)
Contribution deficiency (excess)	$ (16,000)	$ (16,633)	$ (180,876)	$ (84,381)	$ (90,300)	$ (73,198)
Covered payroll	$ 31,761,577	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Contributions as a percentage of covered payroll	28.62%	29.98%	30.00%	29.98%	30.97%	32.06%

Schedule of Investment Returns *Year Ended December 31*	2019	2018	2017	2016	2015	2014
Annual money weighted rate of return, net of investment expense	16.59%	(5.26)%	17.32%	9.26%	1.29%	6.70%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

MELANSON

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Report on Schedules

We have audited the accompanying schedule of employer allocations of the Leominster Contributory Retirement System as of and for the year ended December 31, 2019. We have also audited the total for all entities of the net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified totals) included in the accompanying schedule of pension amounts by employer of the Leominster Contributory Retirement System as of and for the year ended December 31, 2019.

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.

Auditors' Responsibility
Our responsibility is to express opinions on the schedule of employer allocations and the specified 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 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 specified 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 specified 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 specified 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 specified 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, and total pension expense for the total of all participating entities for the Leominster 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.

Restriction on Use

Our report is intended solely for the information and use of Leominster Contributory Retirement System management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2019 and is not intended to be and should not be used by anyone other than these specified parties.

Melanson

Andover, Massachusetts
July 28, 2021

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Employer Allocations

Employer	FY 2020 Actual Employer Contributions	Allocation Percentage
City of Leominster	$ 8,540,837	94.12%
Leominster Housing Authority	533,575	5.88%
Total	$ 9,074,412	100.00%

See actuarial assumptions in the Leominster Contributory Retirement System audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Pension Amounts by Employer
As of and for the Year Ended December 31, 2019

	City of Leominster	Housing Authority	Total
Net Pension (Asset)	$ (4,565,723)	$ (285,236)	$ (4,850,959)
Deferred Outflows of Resources			
Differences between expected and actual experience	$ 4,048,323	$ 252,913	$ 4,301,236
Changes in proportion and differences between employer contributions and proportionate share of contributions	491,181	325,500	816,681
Total Deferred Outflows of Resources	$ 4,539,504	$ 578,413	$ 5,117,917
Deferred Inflows of Resources			
Differences between expected and actual experience	$ 3,492,256	$ 218,173	$ 3,710,429
Net difference between projected and actual investment earnings on pension plan investments	12,685,691	792,519	13,478,210
Changes of assumptions	523,120	32,681	555,801
Changes in proportion and differences between employer contributions and proportionate share of contributions	742,663	74,018	816,681
Total Deferred Inflows of Resources	$ 17,443,730	$ 1,117,391	$ 18,561,121
Pension Expense			
Proportionate share of pension expense	$ 1,150,305	$ 71,864	$ 1,222,169
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(101,342)	101,342	-
Total Pension Expense	$ 1,048,963	$ 173,206	$ 1,222,169
Contributions			
Actuarially determined contribution	$ 8,540,837	$ 533,575	$ 9,074,412
Contributions made	(8,555,896)	(534,516)	(9,090,412)
Contribution deficiency / (excess)	$ (15,059)	$ (941)	$ (16,000)
Contributions as a percentage of covered payroll	28.47%	31.28%	28.62%
Deferred Outflows / (Inflows) Recognized in Future Pension Expense			
June 30, 2021	$ (5,506,777)	$ (236,355)	$ (5,743,132)
June 30, 2022	(4,296,525)	(167,367)	(4,463,892)
June 30, 2023	(223,994)	61,996	(161,998)
June 30, 2024	(3,484,981)	(229,814)	(3,714,795)
June 30, 2025	608,053	32,560	640,613
Total Deferred Outflows / (Inflows) Recognized in Future Pension Expense	$ (12,904,224)	$ (538,980)	$ (13,443,204)
Discount Rate Sensitivity			
1% decrease (4.5%)	$ 23,672,509	$ 1,478,903	$ 25,151,412
Current discount rate (5.5%)	$ (4,565,723)	$ (285,236)	$ (4,850,959)
1% increase (6.5%)	$ (24,111,326)	$ (1,506,317)	$ (25,617,643)
Covered Payroll	$ 30,052,657	$ 1,708,920	$ 31,761,577

See actuarial assumptions in the Leominster Contributory Retirement System audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Financial Statements,
Required Supplementary Information,
and Other Information

For the Year Ended December 31, 2018

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MELANSON

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

We have audited the accompanying financial statements of the Leominster Contributory Retirement System (the System), a component unit of the City of Leominster, Massachusetts, as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The System's 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.

Auditors' 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. 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 auditors' 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

Nashua, New Hampshire
Manchester, New Hampshire
Andover, Massachusetts
Greenfield, Massachusetts
Ellsworth, Maine

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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 fiduciary net position of the Leominster Contributory Retirement System as of December 31, 2018, and the respective changes in fiduciary net 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 the Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of Net Pension Liability, Contributions, and Investment Returns, listed in the foregoing table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Melanson

Greenfield, Massachusetts
September 30, 2020

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Leominster Contributory Retirement System (the System), we offer readers this narrative overview and analysis of the financial activities of the System for the year ended December 31, 2018.

A. OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the basic financial statements. The basic financial statements are comprised of two components: (1) fund financial statements and (2) notes to financial statements. This report also contains other supplementary information in addition to the basic financial statements themselves.

Fund financial statements. A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Fund accounting is used to ensure and demonstrate compliance with finance-related legal requirements.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position held in trust restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pensions changed during the year ended December 31, 2018. It reflects contributions by members and participating employers, investment activity, along with deductions for retirement benefits, refunds, transfers, and administrative expenses.

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

The Required Supplementary Information includes this Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability, and the Schedules of Net Pension Liability, Contributions, and Investment Returns.

B. FINANCIAL HIGHLIGHTS

- The System's total net position restricted for pensions was $196,807,177 at December 31, 2018.

- The System's net position decreased by $(10,771,594), which is primarily due to investment losses during the year.
- Employer and employee contributions to the plan were $12,191,955, which represents a $151,274 increase compared to the prior year. The employer share of contributions represents 72.47% of the total contributions made to the System.
- Benefits paid to plan participants increased by $1,128,436 or 11.22%, totaling $11,185,486. At December 31, 2018, there were 415 retirees and beneficiaries in receipt of pension benefits, as further discussed on page 9.
- The System's funded ratio (based on the most recent actuarial valuation of January 1, 2018.) was 91.62%, with 1 year remaining in its amortization period.

C. FINANCIAL STATEMENT ANALYSIS

The following is a summary of financial statement data for the current and prior fiscal years (in thousands):

FIDUCIARY NET POSITION

	2018	2017
Assets		
Cash and receivables	$ 501	$ 9,805
Investments	196,313	197,790
Total Assets	196,814	207,595
Liabilities		
Accounts payable	7	16
Total Liabilities	7	16
Net Position		
Restricted for Pensions	$ 196,807	$ 207,579

The System's total assets as of December 31, 2018 were $196,813,891 and were comprised of cash and investments. Total assets decreased by $(10,781,476) or (5.19)%, from the prior year primarily due to a decrease in investment value.

CHANGES IN FIDUCIARY NET POSITION

	2018	2017
Additions		
Contributions	$ 12,522	$ 12,308
Investment income (loss), net	(10,920)	30,408
Total Additions	1,602	42,716
Deductions		
Benefit payments	11,185	10,057
Other	1,189	805
Total Deductions	12,374	10,862
Change in Net Position	(10,772)	31,854
Net Position Restricted for Pensions		
Beginning of Year	207,579	175,725
End of Year	$ 196,807	$ 207,579

The amount needed to finance benefits is accumulated through the collection of employers' and employee's contributions, reimbursements from the Commonwealth of Massachusetts for pre-1998 COLA and through earnings on investments. Contributions and net investment loss for calendar year 2018 resulted in a net loss of $(7,802,664). Employers' contributions decreased by $(22,311), or 0.25% in calendar year 2018. The System had net investment loss of $(10,920,207) versus net investment gain of $30,407,709 in 2017, primarily due to the market performing less favorably in calendar year 2018.

The primary deductions of the System include the payment of pension benefits to participants and beneficiaries, refunds and transfers of member contributions, reimbursement payments in accordance with Massachusetts General Law, Chapter 32, Section 3(8)c, more commonly referred to as 3(8)c reimbursements, and the costs of administering the System. Total deductions for calendar year 2018 were $12,373,273, which represents an increase of $1,511,430, or 13.92%, over deductions of $10,861,843 in calendar year 2017. The payment of pension benefits increased by $1,128,436 or 11.22%, over the previous year.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Leominster Contributory Retirement System's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to:

Ms. Erin Kelley, Administrator
Leominster Contributory Retirement System
25 West Street
Leominster, MA 01453

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Statement of Fiduciary Net Position

December 31, 2018

Assets		
Cash and short-term investments	$	501,093
Investments:		
Equity mutual funds		53,445,359
External investment pool		142,867,193
Accounts receivable		246
Total Assets	$	196,813,891
Liabilities		
Accounts payable	$	6,714
Net Position		
Restricted for pensions purposes		196,807,177
Total Liabilities and Net Position	$	196,813,891

The accompanying notes are an integral part of these financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Statement of Changes in Fiduciary Net Position

For the Year Ended December 31, 2018

Additions		
Contributions:		
Employers	$	9,074,412
Plan members		3,117,543
Other systems and the Commonwealth of Massachusetts		313,298
Other		16,633
Total Contributions		12,521,886
Investment income (loss)		
(Depreciation) in fair value of investments		(9,744,316)
Less: management fees		(1,175,891)
Net Investment (Loss)		(10,920,207)
Total Additions		1,601,679
Deductions		
Benefit payments to plan members and beneficiaries		11,185,486
Refunds to plan members		323,782
Transfers to other systems		681,787
Administrative expenses		182,218
Total Deductions		12,373,273
Net (Decrease)		(10,771,594)
Net Position Restricted for Pensions		
Beginning of Year		207,578,771
End of Year	$	196,807,177

The accompanying notes are an integral part of these financial statements.

1. Description of Plan

Substantially all employees of the of City of Leominster (except teachers and administrators under contract employed by the School Department) and the Leominster Housing Authority are members of the Leominster Contributory Retirement System (the System), a cost sharing, multiple employer public employee retirement system (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages, and benefits paid. The Leominster Contributory Retirement Board does not have the authority to amend benefit provisions.

Membership of the plan consisted of the following at January 1, 2018:

Retirees and beneficiaries receiving benefits	415
Inactive members entitled to a return of employee contributions	213
Active plan members	611
Total	1,239
Number of participating employers	2

Participant Contributions

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of the Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the system. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of $30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 – present	9%

For those members entering a Massachusetts System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

Employer Contributions

Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

Participant Retirement Benefits

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the Massachusetts System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are 4 classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 – General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 – Certain specified hazardous duty positions.
- Group 4 – Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2, respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

Methods of Payment

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A – Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the members death.
- Option B – A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.
- Option C – A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

Participant Refunds

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

2. Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

The System is a member of the Massachusetts Contributory Retirement Systems and is governed by Chapter 32 of the Massachusetts General Laws. Because of the significance of its operational and financial relationship with the City, the System is included as a pension trust fund in the City's basic financial statements. The System is governed by a 5-member board. The 5 members include 2 appointed by the city, 2 elected by the members and retirees, and a 5th member chosen by the other 4 members with the approval of PERAC.

Summary of Significant Accounting Policies

The accounting policies of the System as reflected in the accompanying financial statements for the year ended December 31, 2018 conform to generally accepted accounting principles for public employee retirement systems (PERS). The more significant accounting policies of the System are summarized below:

Basis of Accounting

The System follows accounting policies mandated by the Commonwealth of Massachusetts. The accounting records are maintained on the accrual basis of accounting. Contributions from the City of Leominster and Leominster Housing Authority employees are recognized as revenue in the period in which employees provide services to the respective member unit.

Investments

Investment Policy

Investments are reported at fair value in accordance with PERAC requirements. System assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan.

Rate of Return

For the year ended December 31, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was (5.26)%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested throughout the year.

3. Cash and Short-Term Investments

Custodial Credit Risk - Deposits. Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned. Massachusetts General Law Chapter 32, Section 23, limits the System's deposits "in a bank or trust company to an amount not exceeding ten percent of the capital and surplus of such bank or trust company." The System does not have a deposit policy for custodial credit risk.

As of December 31, 2018, none of the System's bank balances of $612,778 was exposed to custodial credit risk as uninsured or uncollateralized, and collateral held by pledging bank's trust department not in the System's name.

4. Investments

The following is a summary of the System's investments as of December 31, 2018:

Investment Type	Amount
Equity mutual funds	$ 53,445,359
External investment pool*	142,867,193
Total Investments	$ 196,312,552

** Fair value is the same as the value of the pool share. The Pension Reserves Investment Trust (PRIT) was created under Massachusetts General Law, Chapter 32, Section 22, in December 1983. The Pension Reserves Investment Trust is operated under contract with a private investment advisor, approved by the Pension Reserves Investment Management Board. The Pension Reserves Investment Management Board shall choose an investment advisor by requesting proposals from advisors and reviewing such proposals based on criteria adopted under Massachusetts General Law, Chapter 30B.*

A. *Credit Risk*

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Massachusetts General Law, Chapter 32, Section 23, limits the investment of System funds, to the extent not required for current disbursements, in the PRIT Fund or in securities, other than mortgages or collateral loans, which are legal for the investment of funds in savings banks under the laws of the Commonwealth, provided that no more than the established percentage of assets, is invested in any one security.

Due to their nature, none of the System's investments are subject to credit risk disclosure.

B. *Custodial Credit Risk*

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the

possession of another party. The System does not have a formal policy for custodial credit risk but manages custodial credit risk through diversification and the "prudent person" principles outlined in PERAC guidelines.

All the System's investments of $196,312,552 are exempt from custodial risk disclosure.

Investments in external/State investment pools and in open-end mutual funds are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form.

C. *Concentration of Credit Risk*

Massachusetts General Law Chapter 32, Section 23 limits the amount the System may invest in any one issuer or security type, with the exception of the PRIT Fund.

Investments issued or explicitly guaranteed by the U.S government and investment in mutual funds, external investment pools, and other pooled investments are excluded from concentration of credit disclosure.

All the System's investments are exempt from concentration of credit risk disclosure.

D. *Interest Rate Risk*

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Information about the sensitivity of the fair values of the System's investments to market interest rate fluctuations is not available as all of the System's investments are immediately liquid.

E. *Foreign Currency Risk*

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The System does not have a formal investment policy related to foreign currency risk.

F. *Fair Value*

The System categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application* (GASB 72).

The hierarchy is based on the valuation inputs used to measure the fair value of the asset. The hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 – Inputs that reflect quoted prices (unadjusted) in active markets for identical assets or liabilities that the fund has the ability to access at the measurement date.
- Level 2 – Inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active. Because they must often be priced on the basis of transactions involving similar but not identical securities or do not trade with sufficient frequency, certain directly held securities are categorized as level 2.
- Level 3 – Unobservable inputs based on the best information available, using assumptions in determining the fair value of investments and derivative instruments.

The net asset value (NAV) per share is the amount of net assets attributable to each share of capital stock outstanding at the close of the period. Investments measured at the NAV for fair value are not subject to level classification.

The System has the following fair value measurements as of December 31, 2018:

		Fair Value Measurements Using:		
Description	Amount	Quoted prices in active markets for identical assets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Investments by fair value level:				
Equity mutual funds	$ 53,445,359	$ 53,445,359	$ -	$ -
Investments measured at the net asset value (NAV):				
External investment pool	142,867,193			
Total	$ 196,312,552			

Description	Amount	Unfunded Commitments	Redemption Frequency (If currently eligible)	Redemption Notice Period
External investment pool	$ 142,867,193	$ -	Monthly	30 Days

5. Contingencies

There are various pending claims arising in the ordinary course of operations; however, management believes that the probable liability resulting from such claims and litigation would not materially affect the System's financial position.

6. Subsequent Event

The COVID-19 outbreak in the United States (and across the globe) has resulted in economic uncertainties. The disruption is expected to be temporary, but there is considerable uncertainty around the duration and scope. The extent of the impact of COVID-19 on our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, impact on our employees, and vendors, all of which are uncertain and cannot be predicted. At this point, the extent to which COVID-19 may impact our financial condition or results of operation is uncertain.

7. Net Pension Liability of Participating Employers

The net pension liability was based on an actuarial valuation dated January 1, 2018 and rolled forward to December 31, 2018.

A. *Net Pension Liability of Employers*

The components of the net pension liability of the participating employers at December 31, 2018 were as follows:

Total pension liability	$ 214,798,517
Plan fiduciary net position	(196,807,177)
Employers' net pension liability	$ 17,991,340
Plan fiduciary net position as a percentage of total pension liability	91.62%

B. *Actuarial Assumptions*

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below:

Valuation date	1/1/2018
Actuarial cost method	Entry Age Normal Cost Method
Remaining amortization period	1 year remaining from the 5-year schedule. The maximum period allowed is 11 years.
Actuarial assumptions:	
Investment rate of return	5.50%
Projected salary increases:	
Group 1 and 2	3.75%
Fire	4.00%
Police	4.00%
Inflation rate	3.00%
Post-retirement cost-of-living adjustment	2% increase on first $12,000

Actuarial valuations of the ongoing Systems involve estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision, as actual results are compared with past expectations and new estimates are made about the future.

Mortality rates were based on the RP-2014 table adjusted to 2006 and projected generationally with MP-2016 (sex-distinct).

Changes of Assumptions

The prior valuation assumed no cost-of-living adjustments. The current valuation assumes a 2% increase on benefits up to $12,000. The System's total pension liability increased by approximately $11.6 million as a result of this change.

C. *Target Allocations*

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates 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 System's targeted asset allocation as of December 31, 2018, are summarized in the following table.

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
US Equity	19.00%	5.25%
International Equities	24.00%	5.43%
Emerging Equities	8.00%	6.90%
Hedged Equity	6.00%	4.54%
Core Bonds	4.00%	2.07%
Short-Term Fixed Income	1.00%	1.72%
20+ Yr. Treasury STRIPS	2.00%	1.22%
TIPS	3.00%	1.71%
Value-Added Fixed Income	6.00%	5.21%
Private Equity	9.00%	8.70%
Real Estate	7.00%	4.09%
Timberland	3.00%	5.65%
Portfolio Completion (PCS)	8.00%	4.41%
Total	100.00%	

D. Discount Rate

The discount rate used to measure the total pension liability was 5.50%. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be made based on the actuarially determined rates based on the Board's funding policy, which establishes the contractually required rates by Statute. Based on those assumptions, the System's fiduciary net position was projected to be available to make all the 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.

E. Sensitivity of Discount Rate

The following presents the net pension liability of the participating employers calculated using the discount rate of 5.50%, as well as what the participating employers' net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage-point higher than the current rate:

1% Decrease (4.5%)	Current Discount Rate (5.5%)	1% Increase (6.5%)
$44,443,560	$17,991,340	($4,166,108)

F. *Deferred Outflows/(Inflows) of Resources*

The following schedule reflects the deferred outflows/(inflows) of resources for the System for the year ended December 31, 2018:

	Deferred Outflows of Resources	Deferred (Inflows) of Resources
Differences between expected and actual experience	$ -	$ (4,903,066)
Changes of assumptions	-	(754,301)
Net difference between projected and actual investment earnings on pension plan investments	4,743,882	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	746,557	(746,557)
Total	$ 5,490,439	$ (6,403,924)

The following summarizes changes in deferred outflows/(inflows):

	Measurement Year	Amortization Period	Beginning Balance on Prior Measurement Period Deferrals	Current Measurement Period Additions	Amortization of Amounts Recognized in Current Period Pension Expense	End of Year Balance
Deferred Outflows of Resources						
Net differences between projected and actual earnings on pension plan investments:	2018	5.0	-	22,375,715	(4,475,141)	17,900,574
	2017	5.0	(16,536,748)	-	4,134,184	(12,402,564)
	2016	5.0	(3,797,171)	-	1,265,724	(2,531,447)
	2015	5.0	3,554,637	-	(1,777,318)	1,777,319
	2014	5.0	(263,346)	-	263,346	-
Change in proportion and difference between employer contributions and proportionate share of contributions:	2018	5.5	-	181,564	(30,293)	151,271
	2017	5.8	551,591	-	(80,100)	471,491
	2016	6.4	87,614	-	(19,912)	67,702
	2015	6.4	79,464	-	(23,371)	56,093
Total Deferred Outflows of Resources			(16,323,959)	22,557,279	(742,881)	5,490,439
Deferred (Inflows) of Resources						
Difference between expected and actual experience:	2018	5.5	-	(3,163,194)	575,126	(2,588,068)
	2017	5.8	(2,855,904)	-	594,980	(2,260,924)
	2015	6.4	(76,605)	-	22,531	(54,074)
Change of assumptions	2017	5.8	(952,802)	-	198,501	(754,301)
Change in proportion and difference between employer contributions and proportionate share of contributions:	2018	5.5	-	(181,564)	30,293	(151,271)
	2017	5.8	(551,591)	-	80,100	(471,491)
	2016	6.4	(87,614)	-	19,912	(67,702)
	2015	6.4	(79,464)	-	23,371	(56,093)
Total Deferred (Inflows) of Resources			(4,603,980)	(3,344,758)	1,544,814	(6,403,924)
Total Collective Deferred Outflows (Inflows) of Resources			$ (20,927,939)	$ 19,212,521	$ 801,933	$ (913,485)

The following schedule reflects the amortization of the balance of deferred outflows/(inflows) of resources:

Fiscal Year	Total
2020	$ (538,587)
2021	(2,315,905)
2022	(1,036,663)
2023	3,265,233
2024	(287,563)
	$ (913,485)

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Required Supplementary Information

Schedule of Changes in the Net Pension Liability

(Unaudited)

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	$ 4,920,867	$ 4,743,004	$ 4,736,176	$ 4,564,989	$ 4,700,942
Interest on unfunded liability - time value of money	11,668,560	10,989,454	10,677,325	10,348,916	10,032,001
Changes of benefit terms	-	12,074,038	-	-	-
Differences between expected and actual experience	(3,163,194)	(3,450,884)	-	(144,198)	-
Changes of assumptions	-	(1,151,302)	-	-	-
Benefit payments, including refunds of member contributions	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)	(8,876,028)
Net Change in Total Pension Liability	1,701,263	12,859,661	6,267,682	5,975,900	5,856,915
Total Pension Liability - Beginning	213,097,254	200,237,593	193,969,911	187,994,011	182,137,096
Total Pension Liability - Ending (a)	$ 214,798,517	$ 213,097,254	$ 200,237,593	$ 193,969,911	$ 187,994,011
Plan Fiduciary Net Position*					
Contributions - employer	$ 9,091,045	$ 9,161,659	$ 8,974,919	$ 8,877,488	$ 8,760,770
Contributions - member	2,964,757	2,812,073	2,805,801	2,629,443	2,890,151
Net investment income (loss)	(10,953,869)	30,376,424	15,094,672	(246,364)	9,301,503
Benefit payments, including refunds of member contributions	(11,724,970)	(10,344,649)	(9,145,819)	(8,793,807)	(8,876,028)
Administrative expense	(148,557)	(151,361)	(140,546)	(139,267)	(116,936)
Net Change in Plan Fiduciary Net Position	(10,771,594)	31,854,146	17,589,027	2,327,493	11,959,460
Plan Fiduciary Net Position - Beginning	207,578,771	175,724,625	158,135,598	155,808,105	143,848,645
Plan Fiduciary Net Position - Ending (b)	$ 196,807,177	$ 207,578,771	$ 175,724,625	$ 158,135,598	$ 155,808,105
Net Pension Liability - Ending (a-b)	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906

***** Reflects certain classification differences from page 8.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Required Supplementary Information

Schedules of Net Pension Liability, Contributions, and Investment Returns

(Unaudited)

Schedule of Net Pension Liability	2018	2017	2016	2015	2014
Total pension liability	$ 214,798,517	$ 213,097,254	$ 200,237,593	$ 193,969,911	$ 187,994,011
Plan fiduciary net position	(196,807,177)	(207,578,771)	(175,724,625)	(158,135,598)	(155,808,105)
Net pension liability	$ 17,991,340	$ 5,518,483	$ 24,512,968	$ 35,834,313	$ 32,185,906
Plan fiduciary net position as a percentage of the total pension liability	91.62%	97.41%	87.76%	81.53%	82.88%
Covered payroll	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Participating employer net pension liability (asset) as a percentage of covered payroll	59.32%	18.07%	81.90%	125.02%	117.78%

Schedule of Contributions	2018	2017	2016	2015	2014
Actuarially determined contribution	$ 9,074,412	$ 8,980,783	$ 8,890,538	$ 8,787,188	$ 8,687,572
Contributions in relation to the actuarially determined contribution	(9,091,045)	(9,161,659)	(8,974,919)	(8,877,488)	(8,760,770)
Contribution deficiency (excess)	$ (16,633)	$ (180,876)	$ (84,381)	$ (90,300)	$ (73,198)
Covered payroll	$ 30,328,646	$ 30,534,355	$ 29,931,533	$ 28,662,007	$ 27,327,438
Contributions as a percentage of covered payroll	29.98%	30.00%	29.98%	30.97%	32.06%

Schedule of Investment Returns *Year Ended December 31*	2018	2017	2016	2015	2014
Annual money weighted rate of return, net of investment expense	(5.26)%	17.32%	9.26%	1.29%	6.70%

Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

MELANSON

INDEPENDENT AUDITORS' REPORT

To the Retirement Board
Leominster Contributory Retirement System
City of Leominster, Massachusetts

Report on Schedules

We have audited the accompanying schedule of employer allocations of the Leominster Contributory Retirement System as of and for the year ended December 31, 2018. We have also audited the total for all entities of the net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense (specified totals) included in the accompanying schedule of pension amounts by employer of the Leominster Contributory Retirement System as of and for the year ended December 31, 2018.

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.

Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified 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 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 specified 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 specified 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 specified 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 specified 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, and total pension expense for the total of all participating entities for the Leominster 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.

Restriction on Use

Our report is intended solely for the information and use of Leominster Contributory Retirement System management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2018 and is not intended to be and should not be used by anyone other than these specified parties.

Melanson

Greenfield, Massachusetts
September 30, 2020

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Employer Allocations

Employer	FY 2019 Actual Employer Contributions	Allocation Percentage
City of Leominster	$ 8,520,873	93.90%
Leominster Housing Authority	553,539	6.10%
Total	$ 9,074,412	100.00%

See actuarial assumptions in the Leominster Contributory Retirement System audited financial statements.

LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

(A Component Unit of the City of Leominster, Massachusetts)

Schedule of Pension Amounts by Employer

As of and for the Year Ended December 31, 2018

	City of Leominster	Housing Authority	Total
Net Pension Liability	$ 16,893,868	$ 1,097,472	$ 17,991,340
Deferred Outflows of Resources			
Net difference between projected and actual investment earnings on pension plan investments	$ 4,454,505	$ 289,377	$ 4,743,882
Changes in proportion and differences between employer contributions and proportionate share of contributions	299,614	446,943	746,557
Total Deferred Outflows of Resources	$ 4,754,119	$ 736,320	$ 5,490,439
Deferred Inflows of Resources			
Differences between expected and actual experience	$ 4,603,979	$ 299,087	$ 4,903,066
Changes of assumptions	708,289	46,012	754,301
Changes in proportion and differences between employer contributions and proportionate share of contributions	694,028	52,529	746,557
Total Deferred Inflows of Resources	$ 6,006,296	$ 397,628	$ 6,403,924
Pension Expense			
Proportionate share of pension expense	$ 1,454,933	$ 94,516	$ 1,549,449
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(108,638)	108,638	-
Total Pension Expense	$ 1,346,295	$ 203,154	$ 1,549,449
Contributions			
Actuarially determined contribution	$ 8,520,873	$ 553,539	$ 9,074,412
Contributions made	(8,536,491)	(554,554)	(9,091,045)
Contribution deficiency / (excess)	$ (15,618)	$ (1,015)	$ (16,633)
Contributions as a percentage of covered payroll	29.82%	32.62%	29.98%
Deferred Outflows / (Inflows) Recognized in Future Pension Expense			
June 30, 2020	$ (614,372)	$ 75,785	$ (538,587)
June 30, 2021	(2,283,273)	(32,632)	(2,315,905)
June 30, 2022	(1,075,833)	39,170	(1,036,663)
June 30, 2023	2,987,236	277,997	3,265,233
June 30, 2024	(265,934)	(21,629)	(287,563)
Total Deferred Outflows / (Inflows) Recognized in Future Pension Expense	$ (1,252,176)	$ 338,691	$ (913,485)
Discount Rate Sensitivity			
1% decrease (4.5%)	$ 41,732,503	$ 2,711,057	$ 44,443,560
Current discount rate (5.5%)	$ 16,893,868	$ 1,097,472	$ 17,991,340
1% increase (6.5%)	$ (3,911,975)	$ (254,133)	$ (4,166,108)
Covered Payroll	$ 28,628,658	$ 1,699,988	$ 30,328,646

See actuarial assumptions in the Leominster Contributory Retirement System's audited financial statements.

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