



MIDDLESEX COUNTY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2024

(With Independent Auditors' Report Thereon)

MIDDLESEX COUNTY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2024

TABLE OF CONTENTS

Financial Section	1
Independent Auditors' Report.....	3
Management's Discussion and Analysis	7
Financial Statements	11
Statement of Fiduciary Net Position	11
Statement of Changes in Fiduciary Net Position	12
Notes to Financial Statements.....	13
Required Supplementary Information.....	26
Schedule of Changes in the Net Pension Liability and Related Ratios	27
Schedule of Contributions.....	28
Schedule of Investment Returns	29
Notes to Required Supplementary Information	30
Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards.....	31
Audit of Specific Elements, Accounts and Items of Financial Statements	33
Independent Auditors' Report on the Audit of the Schedule of Employer Allocations and Schedules of Pension Amounts by Employer	35
Pension Plan Schedules.....	38
Schedule of Employer Allocations	38
Schedule of Pension Amounts by Employer	40
Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer.....	50
Other Information	52

Financial Section

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Independent Auditors' Report

To the Honorable Middlesex County Retirement Board
Middlesex County Retirement System

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the Middlesex County Retirement System (the "MCRS") as of and for the year ended December 31, 2024, and the related notes to the financial statements, which collectively comprise the MCRS's financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the MCRS as of December 31, 2024, and the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America ("GAAS") and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States ("*Government Auditing Standards*"). 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 MCRS and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management's for the Financial Statements

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

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

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 and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgement and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform auditing procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the MCRS's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about the MCRS's ability to continue as a going concern for a reasonable period of time.

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

Required Supplementary Information

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 17, 2025 on our consideration of the MCRS's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of MCRS's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the MCRS's internal control over financial reporting and compliance.

CBIZ CPAs P.C.

Boston, MA
October 17, 2025

Management's Discussion and Analysis

Middlesex County Retirement System

Management's Discussion and Analysis

December 31, 2024

As management of the Middlesex County Retirement System ("MCRS"), we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2024. The MCRS complies with financial reporting requirements issued by the Governmental Accounting Standards Board ("GASB").

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

Financial Highlights

- The MCRS's assets exceeded its liabilities at the close of the most recent year by \$2.27 billion.
- The MCRS's net position increased by \$185.3 million for the year ended December 31, 2024.
- Total investment income was \$192.0 million; investment expenses were \$10.1 million; and net investment income was \$181.9 million.
- Total contributions were \$254.1 million; consisting of \$176.9 million from employers, \$60.6 million from members, \$7.8 million in transfers and \$8.9 million in other contributions.
- Retirement benefits, refunds, and transfers of member deductions to other systems amounted to \$246.8 million.
- Depreciation, administrative and building expenses were \$4.0 million.
- The total pension liability was \$3.90 billion as of December 31, 2024, while the net pension liability was \$1.63 billion.
- The Plan fiduciary net position as a percentage of the total pension liability was 58.24%, which increased from the prior year.

Overview of the Financial Statements

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

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

Middlesex County Retirement System

Management's Discussion and Analysis

December 31, 2024

The *statement of changes in fiduciary net position* presents information showing how the MCRS's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows*. Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

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

Required Supplementary Information

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

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the MCRS's financial position. The MCRS's assets exceeded liabilities by \$2.27 billion at the close of 2024.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year-end, the MCRS's net position included investments of \$2.2 billion, cash of \$45.4 million and accounts receivable of \$4.7 million. The system also had capital assets, net of accumulated depreciation, of \$4.0 million at year-end primarily consisting of land, an office building, and building improvements.

In 2024, the MCRS's contributions were \$254.1 million while deductions were \$250.7 million which resulted in a current surplus of \$4.0 million. In 2023, the MCRS's contributions were \$241.1 million while deductions were \$237.1 million which resulted in a prior year surplus of \$4.0 million. Therefore, for these two years the MCRS was able to sustain operations independent of investment income.

The primary change in net position over the prior year relates to each year's investment performance. The System experienced a net investment income of \$182.9 million in 2024, to \$196.3 million in 2023. The annual money weighted rate of return was 9.07% and 10.95% in 2024, and 2023, respectively. The MCRS's investment policy is designed to achieve a long-term rate of return of 7.15% and fluctuation in annual investment returns is expected.

Middlesex County Retirement System

Management's Discussion and Analysis

December 31, 2024

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

	2024	2023
Assets:		
Cash.....	\$ 45,431,000	\$ 81,767,823
Investments.....	2,215,612,748	1,990,678,509
Receivables.....	4,723,051	7,769,459
Capital assets, net of accumulated depreciation....	3,954,587	4,026,260
Total assets.....	2,269,721,386	2,084,242,051
Liabilities:		
Accounts payable.....	319,936	122,943
Other liabilities.....	26,556	26,556
Total liabilities.....	346,492	149,499
Net Position Restricted for Pensions.....	\$ 2,269,374,894	\$ 2,084,092,552
	2024	2023
Additions:		
Contributions:		
Member contributions.....	\$ 60,567,667	\$ 57,300,892
Employer contributions.....	176,847,892	167,196,611
Other contributions.....	16,699,358	16,658,315
Total contributions.....	254,114,917	241,155,818
Net investment income.....	181,886,675	196,292,584
Total additions.....	436,001,592	437,448,402
Deductions:		
Retirement benefits, refunds and transfers.....	246,760,010	233,709,115
Administration.....	3,959,240	3,414,053
Total deductions.....	250,719,250	237,123,168
Net increase in fiduciary net position.....	185,282,342	200,325,234
Fiduciary net position at beginning of year.....	2,084,092,552	1,883,767,318
Fiduciary net position at end of year.....	\$ 2,269,374,894	\$ 2,084,092,552

Middlesex County Retirement System

Management's Discussion and Analysis

December 31, 2024

Requests for Information

This financial report is designed to provide a general overview of the MCRS's finances for all those with an interest in the MCRS's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the MCRS's Chief Administrative Officer, 25 Linnell Circle, Billerica, Massachusetts 01865.

Middlesex County Retirement System

Statement of Fiduciary Net Position

December 31, 2024

Assets

Cash and cash equivalents.....	\$	45,431,000
Investments:		
Investment in Pension Reserve Investment Trust.....		2,215,181,472
Pooled alternative investments.....		<u>431,276</u>
Total investments.....		<u>2,215,612,748</u>
Receivables:		
Member deductions.....		2,911,303
Employer pension appropriation.....		1,232,280
Member make-up payments and redeposits.....		335,044
Transfers from other systems.....		230,031
Other accounts receivable.....		<u>14,393</u>
Total receivables.....		<u>4,723,051</u>
Capital assets, net of accumulated depreciation.....		<u>3,954,587</u>
Total Assets.....		<u>2,269,721,386</u>
Liabilities		
Accounts payable.....		319,936
Other liabilities.....		<u>26,556</u>
Total Liabilities.....		<u>346,492</u>
Net Position Restricted for Pensions.....	\$	<u>2,269,374,894</u>

See notes to financial statements.

Middlesex County Retirement System

Statement of Changes in Fiduciary Net Position

Year Ended December 31, 2024

Additions:

Contributions:

Employer pension appropriation.....	\$ 176,847,892
Member contributions.....	60,567,667
Transfers from other systems.....	7,776,923
3(8)(c) contributions from other systems.....	6,684,019
Workers' compensation settlements.....	90,400
Retirement benefits - state COLA reimbursements.....	519,287
Members' makeup payments and redeposits.....	1,175,252
Interest not refunded.....	151,643
Reimbursement of 91A overearnings.....	56,567
Other revenue.....	<u>245,267</u>

Total contributions..... 254,114,917

Net investment income:

Investment income.....	192,026,456
Less: investment expense.....	<u>(10,139,781)</u>

Net investment income..... 181,886,675

Total additions..... 436,001,592

Deductions:

Retirement benefits and refunds.....	223,598,137
Transfers to other systems.....	11,602,857
3(8)(c) transfer to other systems.....	11,559,016
Administration.....	3,694,147
Building operations and maintenance.....	91,117
Depreciation.....	<u>173,976</u>

Total deductions..... 250,719,250

Net increase in fiduciary net position..... 185,282,342

Fiduciary net position at beginning of year..... 2,084,092,552

Fiduciary net position at end of year..... \$ 2,269,374,894

See notes to financial statements.

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

NOTE 1 – PLAN DESCRIPTION

The Middlesex County Retirement System (MCRS) is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Middlesex County Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees working a minimum of 20 hours per week and who are paid annual compensation of no less than \$5,000. As of December 31, 2024, the MCRS had 71 participating employers.

Originally established in 1911, the MCRS is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the MCRS's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the MCRS are managed by the Chief Administrative Officer.

The legislative body for the MCRS is an Advisory Council consisting of treasurers of the member units. The Advisory Council meets semi-annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The MCRS is a Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws. Membership in the Plan is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

Massachusetts' contributory retirement system benefits are, with certain exceptions, uniform from system to system. The MCRS provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012, and the highest five-year average for members hired after that date. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with 10 years of service for those hired prior to April 2, 2012. For those hired on or after April 2, 2012, a superannuation allowance may be received upon reaching the age of 60 with 10 years of service. Normal retirement for most employees occurs at age 65 for those hired prior to April 2, 2012, and at age 67 for those hired after April 2, 2012 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

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

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

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

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

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

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

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

Active members contribute between 7% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of \$30,000. These deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission's (PERAC) actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the MCRS and all costs are borne by the MCRS.

The pension portion of any retirement benefit is paid from the Pension Fund. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment.

Administrative expenses are paid from investment income.

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

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

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

MCRS is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred. Employer contributions to the plan are recognized when due and the employer is legally required to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition.

Investments are carried at fair value. Fair value is the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. Pooled investments including investments in the Pension Reserves Investment Trust (PRIT) fund are valued based on net asset value (NAV) or unit value at year-end.

Fair Value Measurements

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

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

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

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

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

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

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

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

Accounts Receivable

Accounts receivable consist of member deductions, pension fund appropriations, and other miscellaneous reimbursements. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Capital Assets

Capital assets, which include buildings, building improvements, vehicles, and software are reported in the financial statements. Capital assets are recorded at historical cost, or at estimated historical cost, if actual historical cost is not available. Donated capital assets and capital assets received in service concession arrangements are recorded at acquisition value.

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

All purchases and building costs in excess of \$25,000 are capitalized at the date of acquisition. Capital assets are depreciated on a straight-line basis. The estimated useful lives of capital assets are as follows:

<u>Capital Asset Type</u>	<u>Estimated Useful Life (in years)</u>
Building.....	40
Building improvements.....	40
Software and equipment.....	5

The cost of normal maintenance and repairs that do not add to the value of the assets or materially extend asset lives are not capitalized and are treated as expenses when incurred. Improvements are capitalized. Management regularly reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. No impairments were noted the year under audit.

Other

Purchases and sales of securities are reflected on a trade-date basis. Realized gain or loss on sales of securities is based on average cost. Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

MCRS presents in its Statement of Changes in Fiduciary Net Position the net appreciation (depreciation) in the fair value of its investments, which consists of the net realized gains and losses during the year and the change in unrealized appreciation and depreciation during the year on those investments.

NOTE 3 – PLAN ADMINISTRATION

The MCRS is administered by a five-person Board of Retirement consisting of a first member, who shall serve as Chairman/Treasurer, who shall be appointed by the other four members, a second member elected by the Advisory Council consisting of representatives from the member units, 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 who shall be chosen by the other four members.

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

Chairman.....	Thomas F. Gibson	Term Expires:	12/31/2026
Advisory Council Member....	Brian P. Curtin	Term Expires:	12/31/2027
Elected Member.....	John Brown	Term Expires:	12/31/2026
Elected Member.....	Joseph W. Kearns	Term Expires:	12/31/2025
Appointed Member.....	Robert W. Healy, Jr.	Term Expires:	12/16/2025

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 MCRS. The Board must annually file a financial statement of condition for the MCRS with the Executive Director of PERAC.

The investment of the MCRS'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 MCRS has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the MCRS must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2024, the carrying amount of the MCRS's deposits totaled \$45,431,000, and the bank balance totaled \$48,834,634, all of which was covered by Federal Depository Insurance.

Investments

The MCRS's investments were as follows:

	December 31, 2024
<u>Investment Type</u>	
PRIT Pooled Funds..... \$	2,215,181,472
Pooled Alternative Investments.....	431,276
Total Investments..... \$	<u>2,215,612,748</u>

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

Approximately 99.9% of the Retirement MCRS's investments are in Pension Reserve Investment Trust (PRIT). This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. The PRIT fund, as a pool, invests in various products including, but not limited to, money market mutual funds, equities, pooled foreign and domestic fixed income and equity funds, United States government sponsored enterprises and Treasury notes, real estate, and commodities. The underlying components of PRIT's fixed income portfolio had an effective weighted duration rate for PRIT investments ranged from 1.99 to 14.42 years.

Approximately 0.01% of the MCRS's funds are invested in pooled alternative investments. The market values of assets in those funds are based on the quoted values obtained from each pool.

The Administration's annual money-weighted rate of return on pension plan investments was 9.07%. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The MCRS had the following recurring fair value measurements as of December 31, 2024:

<u>Investment Type</u>	<u>12/31/2024</u>
Investments measured at the net asset value (NAV):	
PRIT Pooled Funds.....	\$ 2,215,181,472
Pooled Alternative Investments.....	<u>431,276</u>
Total Investments.....	<u>\$ 2,215,612,748</u>

Pooled alternative investments and pooled real estate funds classified in level 3 are valued using either a discounted cash flow or market comparable company's technique.

PRIT investments and pooled alternative investments are valued using the net asset value (NAV) method as a practical expedient. The practical expedient is not used when the investment would be expected to sell at a value different than the NAV. There were no unfunded commitments at year end. The PRIT fund's redemption frequency is monthly, and the notice period is 30 days.

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

NOTE 6 – CAPITAL ASSETS

Capital asset activity for the year ended December 31, 2024, was as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
<u>Capital assets not being depreciated:</u>				
Land.....	\$ 672,657	\$ -	\$ -	\$ 672,657
Construction in progress.....	165,352	13,324	(140,069)	38,607
Total capital assets not being depreciated....	838,009	13,324	(140,069)	711,264
<u>Capital assets being depreciated:</u>				
Buildings.....	5,417,136	-	-	5,417,136
Building improvements.....	1,200,242	228,468	-	1,428,710
Software and equipment.....	27,619	-	(27,619)	-
Total capital assets being depreciated.....	6,644,997	228,468	(27,619)	6,845,846
<u>Less accumulated depreciation for:</u>				
Buildings.....	(2,848,350)	(135,428)	-	(2,983,778)
Building improvements.....	(580,777)	(37,968)	-	(618,745)
Software and equipment.....	(27,619)	-	27,619	-
Total accumulated depreciation.....	(3,456,746)	(173,396)	27,619	(3,602,523)
Total capital assets being depreciated, net.....	3,188,251	55,072	-	3,243,323
Total capital assets, net.....	\$ 4,026,260	\$ 68,396	\$ (140,069)	\$ 3,954,587

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

NOTE 7 – MEMBERSHIP

The following table represents the MCRS's membership at December 31, 2023:

Active members.....	9,603
Inactive participants entitled to a refund of employee contributions.....	4,227
Inactive participants with a vested right to a deferred or immediate benefit....	470
Retired participants or beneficiaries currently receiving benefits.....	<u>6,607</u>
Total.....	<u>20,907</u>

NOTE 8 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2024, were as follows:

Total pension liability.....	\$ 3,896,658,062
The MCRS's fiduciary net position.....	<u>2,269,374,894</u>
The net pension liability.....	<u>\$ 1,627,283,168</u>
The MCRS's fiduciary net position as a percentage of the total pension liability.....	58.24%

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

The total pension liability was determined by an actuarial valuation as of January 1, 2024, using the following actuarial assumptions, applied to all periods included in the measurement that was updated to December 31, 2024:

Valuation date.....	January 1, 2024.
Actuarial cost method.....	Entry Age Normal Cost Method.
Investment rate of return/Discount rate...	7.15%.
Inflation rate.....	3.25%.
Projected salary increases.....	Varies by length of service with ultimate rates of 4.00% for Group 1, 4.25% for Group 2 and 4.50% for Group 4
Cost of living adjustments.....	3.00% of the first \$16,000.
Mortality Rates:	
Pre-Retirement.....	The RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2021.
Healthy Retiree.....	The RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2021.
Disabled Retiree.....	The RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2021.

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

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

Best estimates of arithmetic real rates of return for each major asset class included in the MCRS's target asset allocation as of December 31, 2024, are summarized in the following table:

Asset Class	Long-Term Expected Asset Allocation	Long-Term Expected Real Rate of Return
Domestic equity.....	23.50%	5.82%
International developed markets equity...	9.00%	5.91%
International emerging markets equity....	3.50%	7.06%
Core fixed income.....	15.00%	1.81%
High-yield fixed income.....	9.00%	3.34%
Real estate.....	10.00%	3.34%
Timber.....	4.00%	3.82%
Hedge funds, GTAA, risk parity.....	10.00%	2.77%
Private equity.....	16.00%	9.20%
	<u>100.00%</u>	<u>9.20%</u>

Discount rate: The discount rate used to measure the total pension liability was 7.15% at December 31, 2024, and December 31, 2023. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the MCRS's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate: The following presents the net pension liability, calculated using the discount rate of 7.15%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.15%) or 1-percentage-point higher (8.15%) than the current rate:

	1% Decrease (6.15%)	Current Discount (7.15%)	1% Increase (8.15%)
Middlesex County Retirement System's net pension liability as of December 31, 2024.....\$	<u>2,063,871,162</u>	<u>\$ 1,627,283,168</u>	<u>\$ 1,260,060,391</u>

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

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

NOTE 9 – COMMITMENTS AND CONTINGENCIES

The MCRS had no significant commitments or contingencies at year-end.

NOTE 10 – LEGALLY REQUIRED RESERVE ACCOUNTS

The balances in the MCRS's legally required reserves at December 31, 2024, were as follows:

		<u>Purpose:</u>
Annuity savings fund.....	\$ 555,479,196	Active members' contribution balance.
Annuity reserve fund.....	163,788,462	Retired members' contribution account.
Pension reserve fund.....	1,535,957,143	Amounts appropriated to fund future retirement benefits.
Pension fund.....	13,791,890	Remaining net assets.
Military service fund.....	<u>358,203</u>	Amounts appropriated to fund military service time.
Total net position.....	\$ <u>2,269,374,894</u>	

NOTE 11 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2024, the following GASB pronouncement was implemented:

- GASB Statement #101 *Compensated Absences*. This pronouncement did not impact the basic financial statements.

Middlesex County Retirement System

Notes to Financial Statements

Year Ended December 31, 2024

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #102. *Certain Risk Disclosures*, which is required to be implemented in 2025.
- The GASB Issued Statement #103. *Financial Reporting Model Improvements*, which is required to be implemented in 2026.
- The GASB issued Statement #104, *Disclosure of Certain Capital Assets*, which is required to be implemented in 2026.

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

Required Supplementary Information

Middlesex County Retirement System

Schedule of Changes in the Net Pension Liability and Related Ratios

	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021	December 31, 2022	December 31, 2023	December 31, 2024
Total pension liability:										
Service cost.....	\$ 54,217,685	\$ 56,386,392	\$ 60,585,598	\$ 64,615,910	\$ 66,816,001	\$ 73,591,385	\$ 76,097,081	\$ 78,883,633	\$ 81,569,522	\$ 85,447,261
Interest.....	179,703,272	187,359,946	200,298,121	208,614,148	216,905,943	229,825,239	238,805,957	245,416,378	254,059,307	267,749,834
Changes in benefit terms.....	-	-	-	-	29,156,339	-	-	-	18,729,653	-
Differences between expected and actual experience.....	-	7,976,453	(9,059,393)	-	46,671,873	-	5,225,766	-	58,204,892	-
Changes in assumptions.....	-	96,500,754	97,195,824	-	65,013,900	-	27,166,375	-	-	-
Benefit payments.....	(134,295,504)	(143,428,636)	(150,780,931)	(161,259,804)	(168,486,003)	(181,769,445)	(184,028,124)	(193,970,504)	(218,241,042)	(231,689,383)
Net change in total pension liability.....	99,625,453	204,794,909	198,239,219	111,970,254	256,078,053	121,647,179	163,267,055	130,329,507	194,322,332	121,507,712
Total pension liability - beginning.....	<u>2,294,876,389</u>	<u>2,394,501,842</u>	<u>2,599,296,751</u>	<u>2,797,535,970</u>	<u>2,909,506,224</u>	<u>3,165,584,277</u>	<u>3,287,231,456</u>	<u>3,450,498,511</u>	<u>3,580,828,018</u>	<u>3,775,150,350</u>
Total pension liability - ending (a).....	<u>\$ 2,394,501,842</u>	<u>\$ 2,599,296,751</u>	<u>\$ 2,797,535,970</u>	<u>\$ 2,909,506,224</u>	<u>\$ 3,165,584,277</u>	<u>\$ 3,287,231,456</u>	<u>\$ 3,450,498,511</u>	<u>\$ 3,580,828,018</u>	<u>\$ 3,775,150,350</u>	<u>\$ 3,896,658,062</u>
Plan fiduciary net position:										
Employer contributions.....	\$ 99,792,641	\$ 107,032,211	\$ 115,377,205	\$ 120,614,676	\$ 129,685,755	\$ 138,290,237	\$ 147,849,683	\$ 156,335,119	\$ 167,196,611	\$ 176,847,892
Member contributions.....	40,983,126	42,876,958	45,225,326	46,682,122	49,318,638	51,971,160	52,971,497	55,164,013	58,250,668	61,742,919
Net investment income (loss).....	7,732,128	74,917,546	189,343,574	(31,074,711)	208,322,511	185,429,727	340,243,524	(240,314,305)	196,533,050	181,886,675
Retirement benefits and refunds.....	(134,295,504)	(143,428,636)	(150,780,931)	(161,259,804)	(168,486,003)	(181,769,445)	(184,028,124)	(193,970,504)	(218,241,042)	(231,689,381)
Administrative expenses.....	(3,290,168)	(3,460,782)	(3,234,149)	(3,273,737)	(3,352,404)	(3,311,611)	(3,403,911)	(3,218,004)	(3,414,053)	(3,505,763)
Net increase (decrease) in fiduciary net position.....	10,922,223	77,937,297	195,931,025	(28,311,454)	215,488,497	190,610,068	353,632,669	(226,003,681)	200,325,234	185,282,342
Fiduciary net position - beginning of year.....	<u>1,093,560,674</u>	<u>1,104,482,897</u>	<u>1,182,420,194</u>	<u>1,378,351,219</u>	<u>1,350,039,765</u>	<u>1,565,528,262</u>	<u>1,756,138,330</u>	<u>2,109,770,999</u>	<u>1,883,767,318</u>	<u>2,084,092,552</u>
Fiduciary net position - end of year (b).....	<u>\$ 1,104,482,897</u>	<u>\$ 1,182,420,194</u>	<u>\$ 1,378,351,219</u>	<u>\$ 1,350,039,765</u>	<u>\$ 1,565,528,262</u>	<u>\$ 1,756,138,330</u>	<u>\$ 2,109,770,999</u>	<u>\$ 1,883,767,318</u>	<u>\$ 2,084,092,552</u>	<u>\$ 2,269,374,894</u>
Net pension liability - ending (a)-(b).....	<u>\$ 1,290,018,945</u>	<u>\$ 1,416,876,557</u>	<u>\$ 1,419,184,751</u>	<u>\$ 1,559,466,459</u>	<u>\$ 1,600,056,015</u>	<u>\$ 1,531,093,126</u>	<u>\$ 1,340,727,512</u>	<u>\$ 1,697,060,700</u>	<u>\$ 1,691,057,798</u>	<u>\$ 1,627,283,168</u>
Plan fiduciary net position as a percentage of the total pension liability.....	46.13%	45.49%	49.27%	46.40%	49.45%	53.42%	61.14%	52.61%	55.21%	58.24%
Covered payroll.....	\$ 432,382,921	\$ 439,644,322	\$ 451,777,105	\$ 471,115,185	\$ 492,109,775	\$ 513,201,283	\$ 519,239,589	\$ 541,233,353	\$ 567,243,261	\$ 591,548,334
Net pension liability as a percentage of covered payroll.....	298.35%	322.28%	314.13%	331.02%	325.14%	298.34%	258.21%	313.55%	298.12%	275.09%

See notes to required supplementary information.

Middlesex County Retirement System

Schedule of Contributions

<u>Year</u>	<u>Actuarially determined contribution</u>	<u>Contributions in relation to the actuarially determined contribution</u>	<u>Contribution deficiency (excess)</u>	<u>Covered payroll</u>	<u>Contributions as a percentage of covered payroll</u>
December 31, 2024..... \$	174,367,693	\$ (176,414,830)	\$ (2,047,137)	\$ 591,548,334	29.82%
December 31, 2023.....	163,724,213	(167,184,938)	(3,460,725)	567,243,261	29.47%
December 31, 2022.....	153,677,331	(156,335,119)	(2,657,788)	541,233,353	28.88%
December 31, 2021.....	144,255,207	(147,852,245)	(3,597,038)	519,239,589	28.47%
December 31, 2020.....	135,472,822	(138,290,237)	(2,817,415)	513,201,283	26.95%
December 31, 2019.....	127,151,838	(129,685,754)	(2,533,916)	492,109,775	26.35%
December 31, 2018.....	119,298,291	(120,614,676)	(1,316,385)	471,115,185	25.60%
December 31, 2017.....	112,017,087	(115,426,815)	(3,409,728)	451,777,105	25.55%
December 31, 2016.....	105,246,797	(107,067,707)	(1,820,910)	439,644,322	24.35%
December 31, 2015.....	98,792,642	(99,820,481)	(1,027,839)	432,382,921	23.09%

See notes to required supplementary information.

Middlesex County Retirement System

Schedule of Investment Returns

<u>Year</u>	<u>Annual money-weighted rate of return, net of investment expense</u>
December 31, 2024.....	9.07%
December 31, 2023.....	10.95%
December 31, 2022.....	-11.54%
December 31, 2021.....	19.86%
December 31, 2020.....	12.26%
December 31, 2019.....	16.21%
December 31, 2018.....	-2.52%
December 31, 2017.....	17.25%
December 31, 2016.....	7.35%
December 31, 2015.....	0.61%

See notes to required supplementary information.

Middlesex County Retirement System

Notes to Required Supplementary Information

Year Ended December 31, 2024

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

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

NOTE B – CONTRIBUTIONS

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

NOTE C – MONEY WEIGHTED RATE OF RETURN

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

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions – None

Changes in Plan Provisions – January 1, 2024 Valuation – pursuant to chapter 269 of the Acts of 2022, the Board approved a one-time increase in the COLA from 3% to 5% effective July 1, 2022.

**Independent Auditors' Report on Internal Control over Financial Reporting and on
Compliance and Other Matters Based on an Audit of Financial Statements Performed
in Accordance with Government Auditing Standards**

To the Honorable Middlesex County Retirement Board
Middlesex County Retirement System

We have audited, in accordance with the auditing standards generally accepted in the United States of America ("GAAS") and the standards applicable to the financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States ("*Government Auditing Standards*"), the financial statements of the Middlesex County Retirement System (the "MCRS"), for the year ended December 31, 2024, and the related notes to the financial statements, which collectively comprise the MCRS's financial statements, and have issued our report thereon dated October 17, 2025.

Report on Internal Control Over Financial Reporting

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

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

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

Report on Compliance and Other Matters

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

Purpose of this Report

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

CBIZ CPAs P.C.

Boston, MA

October 17, 2025

***Audit of Specific Elements, Accounts and
Items of Financial Statements***

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**Independent Auditors' Report on the Audit of the Schedule of Employer Allocations and
Schedule of Pension Amounts by Employer**

To the Honorable Middlesex County Retirement Board
Middlesex County Retirement System

Opinions

We have audited the accompanying schedule of employer allocations of the Middlesex County Retirement System (the "MCRS") for the year ended December 31, 2024, and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule pension amounts by employer of the MCRS for the year ended December 31, 2024, and the related notes (collectively, the "Schedules").

In our opinion, the accompanying Schedules present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the MCRS for the year ended December 31, 2024, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

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 MCRS 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 opinions.

Responsibilities of Management for the Schedules

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

Auditors' Responsibilities for the Audit of the Schedules

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

In performing an audit in accordance with GAAS, we:

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

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

Other Matter

We have audited, in accordance with GAAS, the financial statements of the MCRS for the year ended December 31, 2024, and our report thereon, dated October 17, 2025 expressed an unmodified opinion on those financial statements.

Restriction on Use

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

Other Information

Management is responsible for the other information which MCRS has elected to present, and which accompanies the Schedules. The other information comprises additional information concerning the amounts of deferred inflows and outflows to be recognized as a component of future pension expense, discount rate sensitivity information, and covered payroll by employer, but it does not include the Schedules and our auditors' report thereon. Our opinions on the Schedules do not cover the other information, and we do not express an opinion or any form of assurance on it.

In connection with our audit of the Schedules, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the Schedules, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

CBIZ CPAs P.C.

October 17, 2025

Boston, MA

Middlesex County Retirement System

Schedule of Employer Allocations

For the Year Ended December 31, 2024

Employer	Share of Net Pension Liability/(Asset)	Percent of Total Net Pension Liability
Middlesex County Retirement Board.....	\$ -	0.000000%
Middlesex County.....	-	0.000000%
Middlesex Hospital.....	-	0.000000%
Town of Acton.....	54,779,793	3.366334%
Town of Ashby.....	1,363,583	0.083795%
Town of Ashland.....	37,223,604	2.287469%
Town of Ayer.....	21,489,212	1.320558%
Town of Bedford.....	56,759,513	3.487992%
Town of Billerica.....	158,117,928	9.716682%
Town of Boxborough.....	13,116,826	0.806057%
Town of Burlington.....	139,944,825	8.599906%
Town of Carlisle.....	15,825,856	0.972532%
Town of Chelmsford.....	117,043,610	7.192578%
Town of Dracut.....	72,649,809	4.464485%
Town of Dunstable.....	3,965,509	0.243689%
Town of Groton.....	22,607,096	1.389254%
Town of Holliston.....	27,098,088	1.665235%
Town of Hopkinton.....	25,603,170	1.573369%
Town of Hudson.....	68,506,610	4.209876%
Town of Lincoln.....	30,953,095	1.902133%
Town of Littleton.....	24,132,282	1.482980%
Town of North Reading.....	52,489,946	3.225618%
Town of Pepperell.....	15,942,139	0.979678%
Town of Sherborn.....	12,311,363	0.756559%
Town of Shirley.....	10,189,334	0.626156%
Town of Stow.....	14,107,038	0.866907%
Town of Sudbury.....	63,463,043	3.899939%
Town of Tewksbury.....	113,299,641	6.962503%
Town of Townsend.....	6,524,756	0.400960%
Town of Tyngsborough.....	25,479,144	1.565747%
Town of Wayland.....	59,953,515	3.684271%
Town of Westford.....	60,053,614	3.690422%
Town of Weston.....	72,118,376	4.431827%
Town of Wilmington.....	87,034,008	5.348424%
Acton-Boxborough Regional School District.....	31,019,130	1.906191%
Acton Water Supply.....	4,367,590	0.268398%
Bedford Housing Authority.....	364,212	0.022382%
Billerica Housing Authority.....	1,891,044	0.116209%
Chelmsford Housing Authority.....	2,545,784	0.156444%
Chelmsford Water District.....	637,203	0.039157%
Dracut Housing Authority.....	1,807,002	0.111044%
Dracut Water Supply.....	3,703,298	0.227576%

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

Middlesex County Retirement System

Schedule of Employer Allocations (continued)

For the Year Ended December 31, 2024

Employer	Share of Net Pension Liability/(Asset)	Percent of Total Net Pension Liability
East Chelmsford Water District.....	322,847	0.019840%
East Middlesex Mosquito Control.....	740,940	0.045532%
Greater Lowell Regional Vocational Technical School District.....	19,465,005	1.196166%
Groton-Dunstable Regional School District.....	14,824,349	0.910988%
Hudson Housing Authority.....	886,037	0.054449%
Lincoln-Sudbury Regional School District.....	10,003,104	0.614712%
Nashoba Valley Technical High School District.....	3,537,305	0.217375%
North Chelmsford Water District.....	1,730,231	0.106326%
North Middlesex Regional School District.....	14,061,622	0.864116%
Shawsheen Valley Regional Vocational School.....	9,221,330	0.566670%
South Middlesex Regional Vocational Technical School.....	7,139,197	0.438719%
Sudbury Water District.....	1,091,508	0.067075%
Tewksbury Housing Authority.....	2,110,796	0.129713%
Wayland Housing Authority.....	374,003	0.022983%
Hopkinton Housing Authority.....	600,672	0.036913%
Sudbury Housing Authority.....	535,384	0.032900%
Wilmington Housing Authority.....	136,164	0.008368%
Acton Housing Authority.....	974,160	0.059864%
Burlington Housing Authority.....	41,359	0.002542%
Ayer Housing Authority.....	660,150	0.040568%
Holliston Housing Authority.....	18,947	0.001164%
Littleton Housing Authority.....	669,777	0.041159%
Westford Housing Authority.....	800,216	0.049175%
Shirley Water District.....	366,517	0.022523%
Tyngsborough Housing Authority.....	545,494	0.033522%
Pepperell Housing Authority.....	237,848	0.014616%
Groton Housing Authority.....	-	0.000000%
Tyngsborough Water District.....	696,211	0.042784%
North Reading Housing Authority.....	31,705	0.001948%
West Groton Water.....	78,523	0.004825%
Ayer-Shirley Regional School District.....	4,896,180	0.300881%
Northern Middlesex Regional Emergency Communications Center.....	3,998	0.000246%
Total.....	\$ 1,627,283,168	100.000%

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer

Year Ended December 31, 2024

	Middlesex County Retirement Board	Middlesex County	Middlesex Hospital	Town of Acton	Town of Ashby	Town of Ashland	Town of Ayer	Town of Bedford
Net Pension Liability								
Ending net pension liability/(asset).....	\$ -	\$ -	\$ -	\$ 54,779,793	\$ 1,363,583	\$ 37,223,604	\$ 21,489,212	\$ 56,759,513
Deferred Outflows of Resources								
Differences between expected and actual experience.....	\$ -	\$ -	\$ -	\$ 1,210,806	\$ 30,139	\$ 822,759	\$ 474,979	\$ 1,254,564
Net difference between projected and actual investment earnings on pension plan investments.....	-	-	-	1,707,393	42,501	1,160,197	669,782	1,769,098
Changes of assumptions.....	-	-	-	182,902	4,553	124,285	71,750	189,512
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	-	-	-	185,878	215,854	986,430	1,388,398	1,187,937
Total Deferred Outflows of Resources.....	\$ -	\$ -	\$ -	\$ 3,286,979	\$ 293,047	\$ 3,093,671	\$ 2,604,909	\$ 4,401,111
Deferred Inflows of Resources								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ -	\$ -	\$ -	\$ 432,999	\$ 328,358	\$ 557,037	\$ 94,669	\$ 468,856
Pension Expense								
Proportionate share of plan pension expense.....	\$ 485,002	\$ -	\$ -	\$ 5,596,519	\$ 139,309	\$ 3,802,905	\$ 2,195,422	\$ 5,798,769
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	-	-	-	(359,291)	(23,377)	(47,045)	461,782	191,772
Total Employer Pension Expense.....	\$ 485,002	\$ -	\$ -	\$ 5,237,228	\$ 115,932	\$ 3,755,860	\$ 2,657,204	\$ 5,990,541
Contributions								
Statutory required contribution.....	\$ 485,002	\$ -	\$ -	\$ 5,657,229	\$ 268,891	\$ 4,152,712	\$ 2,230,909	\$ 5,814,992
Contribution in relation to statutory required contribution...	(485,002)	-	-	(5,657,229)	(268,891)	(4,152,712)	(2,530,909)	(5,814,992)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (300,000)	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Town of Billerica	Town of Boxborough	Town of Burlington	Town of Carlisle	Town of Chelmsford	Town of Dracut	Town of Dunstable	Town of Groton
<u>Net Pension Liability</u>								
Ending net pension liability/(asset).....	\$ 158,117,928	\$ 13,116,826	\$ 139,944,825	\$ 15,825,856	\$ 117,043,610	\$ 72,649,809	\$ 3,965,509	\$ 22,607,096
<u>Deferred Outflows of Resources</u>								
Differences between expected and actual experience.....	\$ 3,494,905	\$ 289,923	\$ 3,093,222	\$ 349,801	\$ 2,587,033	\$ 1,605,790	\$ 87,650	\$ 499,688
Net difference between projected and actual investment earnings on pension plan investments.....	4,928,268	408,829	4,361,843	493,265	3,648,051	2,264,371	123,598	704,625
Changes of assumptions.....	527,934	43,795	467,257	52,840	390,793	242,568	13,240	75,482
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	493,128	459,603	690,627	2,211,042	2,309,802	927,427	597,001	391,632
Total Deferred Outflows of Resources.....	\$ 9,444,235	\$ 1,202,150	\$ 8,612,949	\$ 3,106,948	\$ 8,935,679	\$ 5,040,156	\$ 821,489	\$ 1,671,427
<u>Deferred Inflows of Resources</u>								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 3,640,176	\$ 180,845	\$ 2,976,352	\$ 19,732	\$ 3,097,428	\$ 1,411,810	\$ 95,657	\$ 1,112,292
<u>Pension Expense</u>								
Proportionate share of plan pension expense.....	\$ 16,153,934	\$ 1,340,068	\$ 14,297,300	\$ 1,616,831	\$ 11,957,622	\$ 7,422,182	\$ 405,132	\$ 2,309,626
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(1,158,186)	28,693	(984,897)	833,098	(272,950)	166,416	135,450	(483,634)
Total Employer Pension Expense.....	\$ 14,995,748	\$ 1,368,761	\$ 13,312,403	\$ 2,449,929	\$ 11,684,672	\$ 7,588,598	\$ 540,582	\$ 1,825,992
<u>Contributions</u>								
Statutory required contribution.....	\$ 16,438,951	\$ 1,325,502	\$ 14,291,966	\$ 1,488,276	\$ 12,078,152	\$ 7,674,843	\$ 386,855	\$ 2,653,019
Contribution in relation to statutory required contribution...	(16,438,951)	(1,325,502)	(14,291,966)	(1,488,276)	(12,253,152)	(7,674,843)	(386,855)	(2,653,019)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ (175,000)	\$ -	\$ -	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Town of Holliston	Town of Hopkinton	Town of Hudson	Town of Lincoln	Town of Littleton	Town of North Reading	Town of Pepperell	Town of Sherborn
Net Pension Liability								
Ending net pension liability/(asset).....	\$ 27,098,088	\$ 25,603,170	\$ 68,506,610	\$ 30,953,095	\$ 24,132,282	\$ 52,489,946	\$ 15,942,139	\$ 12,311,363
Deferred Outflows of Resources								
Differences between expected and actual experience.....	\$ 598,953	\$ 565,911	\$ 1,514,212	\$ 684,161	\$ 533,399	\$ 1,160,193	\$ 352,372	\$ 272,120
Net difference between projected and actual investment earnings on pension plan investments.....	844,601	798,007	2,135,235	964,755	752,162	1,636,023	496,889	383,724
Changes of assumptions.....	90,477	85,485	228,734	103,348	80,574	175,257	53,229	41,106
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	2,106,672	3,024,982	569,977	621,851	2,208,037	90,557	-	915,850
Total Deferred Outflows of Resources.....	\$ 3,640,703	\$ 4,474,385	\$ 4,448,158	\$ 2,374,115	\$ 3,574,172	\$ 3,062,030	\$ 902,490	\$ 1,612,800
Deferred Inflows of Resources								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 742,962	\$ 1,509,843	\$ 2,020,462	\$ 110,069	\$ 902,981	\$ 927,820	\$ 1,157,291	\$ -
Pension Expense								
Proportionate share of plan pension expense.....	\$ 2,768,446	\$ 2,615,718	\$ 6,998,897	\$ 3,162,287	\$ 2,465,450	\$ 5,362,574	\$ 1,628,709	\$ 1,257,775
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	154,800	365,329	(225,491)	411,626	839,140	(293,392)	(388,613)	373,640
Total Employer Pension Expense.....	\$ 2,923,246	\$ 2,981,047	\$ 6,773,406	\$ 3,573,913	\$ 3,304,590	\$ 5,069,182	\$ 1,240,096	\$ 1,631,415
Contributions								
Statutory required contribution.....	\$ 2,890,492	\$ 3,290,227	\$ 7,920,764	\$ 3,249,360	\$ 3,303,090	\$ 5,552,840	\$ 2,066,248	\$ 1,313,434
Contribution in relation to statutory required contribution...	(2,890,492)	(3,294,249)	(7,920,764)	(3,250,460)	(3,303,090)	(5,552,840)	(2,066,248)	(1,313,434)
Contribution deficiency/(excess).....	\$ -	\$ (4,022)	\$ -	\$ (1,100)	\$ -	\$ -	\$ -	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Town of Shirley	Town of Stow	Town of Sudbury	Town of Tewksbury	Town of Townsend	Town of Tyngsborough	Town of Wayland	Town of Westford
Net Pension Liability								
Ending net pension liability/(asset).....	\$ 10,189,334	\$ 14,107,038	\$ 63,463,043	\$ 113,299,641	\$ 6,524,756	\$ 25,479,144	\$ 59,953,515	\$ 60,053,614
Deferred Outflows of Resources								
Differences between expected and actual experience.....	\$ 225,216	\$ 311,810	\$ 1,402,733	\$ 2,504,279	\$ 144,218	\$ 563,169	\$ 1,325,162	\$ 1,327,374
Net difference between projected and actual investment earnings on pension plan investments.....	317,584	439,692	1,978,035	3,531,358	203,366	794,142	1,868,649	1,871,769
Changes of assumptions.....	34,021	47,101	211,894	378,292	21,785	85,071	200,177	200,511
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	331,160	450,986	186,223	2,204,663	772,214	480,845	1,722,229	3,243,312
Total Deferred Outflows of Resources.....	\$ 907,981	\$ 1,249,589	\$ 3,778,885	\$ 8,618,592	\$ 1,141,583	\$ 1,923,227	\$ 5,116,217	\$ 6,642,966
Deferred Inflows of Resources								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 263,398	\$ 135,914	\$ 1,433,812	\$ 3,926,254	\$ 674,864	\$ 366,249	\$ 690,334	\$ 1,792,038
Pension Expense								
Proportionate share of plan pension expense.....	\$ 1,040,982	\$ 1,441,230	\$ 6,483,629	\$ 11,575,125	\$ 666,593	\$ 2,603,046	\$ 6,125,079	\$ 6,135,307
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	86,749	270,737	(507,896)	(90,375)	(162,186)	128,469	(16,382)	388,398
Total Employer Pension Expense.....	\$ 1,127,731	\$ 1,711,967	\$ 5,975,733	\$ 11,484,750	\$ 504,407	\$ 2,731,515	\$ 6,108,697	\$ 6,523,705
Contributions								
Statutory required contribution.....	\$ 1,081,972	\$ 1,422,069	\$ 6,788,143	\$ 11,656,742	\$ 942,446	\$ 2,978,809	\$ 6,285,643	\$ 6,931,644
Contribution in relation to statutory required contribution...	(1,081,972)	(1,422,069)	(6,793,660)	(11,656,742)	(942,446)	(2,979,191)	(6,286,759)	(6,931,644)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ (5,517)	\$ -	\$ -	\$ (382)	\$ (1,116)	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Town of Weston	Town of Wilmington	Acton- Boxborough Regional School District	Acton Water Supply	Bedford Housing Authority	Billerica Housing Authority	Chelmsford Housing Authority	Chelmsford Water District
<u>Net Pension Liability</u>								
Ending net pension liability/(asset).....	\$ 72,118,376	\$ 87,034,008	\$ 31,019,130	\$ 4,367,590	\$ 364,212	\$ 1,891,044	\$ 2,545,784	\$ 637,203
<u>Deferred Outflows of Resources</u>								
Differences between expected and actual experience.....	\$ 1,594,043	\$ 1,923,726	\$ 685,621	\$ 96,538	\$ 8,050	\$ 41,798	\$ 56,270	\$ 14,084
Net difference between projected and actual investment earnings on pension plan investments.....	2,247,807	2,712,702	966,814	136,130	11,352	58,941	79,348	19,861
Changes of assumptions.....	240,793	290,595	103,569	14,583	1,216	6,314	8,500	2,128
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	1,535,430	326,168	714,340	91,833	19,399	294,948	335,026	738,868
Total Deferred Outflows of Resources.....	\$ 5,618,073	\$ 5,253,191	\$ 2,470,344	\$ 339,084	\$ 40,017	\$ 402,001	\$ 479,144	\$ 774,941
<u>Deferred Inflows of Resources</u>								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 648,530	\$ 1,505,105	\$ 352,526	\$ 76,456	\$ 6,675	\$ 105,325	\$ 38,072	\$ 318,620
<u>Pension Expense</u>								
Proportionate share of plan pension expense.....	\$ 7,367,891	\$ 8,891,728	\$ 3,169,032	\$ 446,211	\$ 37,209	\$ 193,195	\$ 260,086	\$ 65,098
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	424,622	(194,866)	67,503	8,488	2,495	9,638	133,964	89,596
Total Employer Pension Expense.....	\$ 7,792,513	\$ 8,696,862	\$ 3,236,535	\$ 454,699	\$ 39,704	\$ 202,833	\$ 394,050	\$ 154,694
<u>Contributions</u>								
Statutory required contribution.....	\$ 7,368,490	\$ 9,494,725	\$ 3,578,963	\$ 354,740	\$ 34,824	\$ 121,392	\$ 316,034	\$ 54,958
Contribution in relation to statutory required contribution...	(7,368,490)	(10,994,725)	(3,578,963)	(354,740)	(34,824)	(121,392)	(376,034)	(54,958)
Contribution deficiency/(excess).....	\$ -	\$ (1,500,000)	\$ -	\$ -	\$ -	\$ -	\$ (60,000)	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Dracut Housing Authority	Dracut Water Supply	East Chelmsford Water District	East Middlesex Mosquito Control	Greater Lowell Regional Vocation Technical School District	Groton- Dunstable Regional School District	Hudson Housing Authority	Lincoln- Sudbury Regional School District
<u>Net Pension Liability</u>								
Ending net pension liability/(asset).....	\$ 1,807,002	\$ 3,703,298	\$ 322,847	\$ 740,940	\$ 19,465,005	\$ 14,824,349	\$ 886,037	\$ 10,003,104
<u>Deferred Outflows of Resources</u>								
Differences between expected and actual experience.....	\$ 39,940	\$ 81,855	\$ 7,136	\$ 16,377	\$ 430,238	\$ 327,665	\$ 19,584	\$ 221,100
Net difference between projected and actual investment earnings on pension plan investments.....	56,321	115,426	10,063	23,094	606,691	462,050	27,616	311,780
Changes of assumptions.....	6,033	12,365	1,078	2,474	64,991	49,496	2,958	33,399
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	-	63,978	47,604	83,848	289,733	413,515	76,760	144,852
Total Deferred Outflows of Resources.....	\$ 102,294	\$ 273,624	\$ 65,881	\$ 125,793	\$ 1,391,653	\$ 1,252,726	\$ 126,918	\$ 711,131
<u>Deferred Inflows of Resources</u>								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 202,839	\$ 161,720	\$ 38,222	\$ 80,840	\$ 911,893	\$ 83,776	\$ 4,420	\$ 222,504
<u>Pension Expense</u>								
Proportionate share of plan pension expense.....	\$ 184,611	\$ 378,342	\$ 32,982	\$ 75,696	\$ 1,988,618	\$ 1,514,513	\$ 90,523	\$ 1,021,955
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(121,504)	(12,709)	(9,247)	(5,385)	(137,075)	186,359	29,909	29,615
Total Employer Pension Expense.....	\$ 63,107	\$ 365,633	\$ 23,735	\$ 70,311	\$ 1,851,543	\$ 1,700,872	\$ 120,432	\$ 1,051,570
<u>Contributions</u>								
Statutory required contribution.....	\$ 176,406	\$ 339,094	\$ 37,289	\$ 69,602	\$ 1,902,443	\$ 1,464,100	\$ 77,357	\$ 975,437
Contribution in relation to statutory required contribution...	(176,406)	(339,094)	(37,289)	(69,602)	(1,902,443)	(1,464,100)	(77,357)	(975,437)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Nashoba Valley Technical High School District	North Chelmsford Water District	North Middlesex Regional School District	Shawsheen Valley Regional Vocational Technical School	South Middlesex Regional Vocational Technical School	Sudbury Water District	Tewksbury Housing Authority	Wayland Housing Authority
Net Pension Liability								
Ending net pension liability/(asset).....	\$ 3,537,305	\$ 1,730,231	\$ 14,061,622	\$ 9,221,330	\$ 7,139,197	\$ 1,091,508	\$ 2,110,796	\$ 374,003
Deferred Outflows of Resources								
Differences between expected and actual experience.....	\$ 78,186	\$ 38,244	\$ 310,806	\$ 203,820	\$ 157,799	\$ 24,126	\$ 46,655	\$ 8,267
Net difference between projected and actual investment earnings on pension plan investments.....	110,252	53,928	438,277	287,413	222,517	34,020	65,790	11,657
Changes of assumptions.....	11,811	5,777	46,950	30,789	23,837	3,644	7,048	1,249
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	55,806	374,714	133,170	108,256	59,228	179,794	162,724	71,150
Total Deferred Outflows of Resources.....	\$ 256,055	\$ 472,663	\$ 929,203	\$ 630,278	\$ 463,381	\$ 241,584	\$ 282,217	\$ 92,323
Deferred Inflows of Resources								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 236,915	\$ 78,011	\$ 26,232	\$ 352,717	\$ 249,829	\$ 753,742	\$ 42,366	\$ 168,848
Pension Expense								
Proportionate share of plan pension expense.....	\$ 361,384	\$ 176,767	\$ 1,436,589	\$ 942,086	\$ 729,368	\$ 111,513	\$ 215,647	\$ 38,207
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(51,124)	78,386	51,583	(43,304)	(47,182)	(285,819)	36,435	(49,320)
Total Employer Pension Expense.....	\$ 310,260	\$ 255,153	\$ 1,488,172	\$ 898,782	\$ 682,186	\$ (174,306)	\$ 252,082	\$ (11,113)
Contributions								
Statutory required contribution.....	\$ 402,171	\$ 101,700	\$ 1,501,550	\$ 965,562	\$ 752,050	\$ 167,851	\$ 171,167	\$ 59,844
Contribution in relation to statutory required contribution...	(402,171)	(101,700)	(1,501,550)	(965,562)	(752,050)	(167,851)	(171,167)	(59,844)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Hopkinton Housing Authority	Sudbury Housing Authority	Wilmington Housing Authority	Acton Housing Authority	Burlington Housing Authority	Ayer Housing Authority	Holliston Housing Authority	Littleton Housing Authority
<u>Net Pension Liability</u>								
Ending net pension liability/(asset).....	\$ 600,672	\$ 535,384	\$ 136,164	\$ 974,160	\$ 41,359	\$ 660,150	18,947	\$ 669,777
<u>Deferred Outflows of Resources</u>								
Differences between expected and actual experience.....	\$ 13,277	\$ 11,834	\$ 3,010	\$ 21,532	\$ 914	\$ 14,591	\$ 419	\$ 14,804
Net difference between projected and actual investment earnings on pension plan investments.....	18,722	16,687	4,244	30,363	1,289	20,576	591	20,876
Changes of assumptions.....	2,006	1,788	455	3,253	138	2,204	63	2,236
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	21,709	20,957	18,016	31,406	80,204	3,304	21,442	34,258
Total Deferred Outflows of Resources.....	\$ 55,714	\$ 51,266	\$ 25,725	\$ 86,554	\$ 82,545	\$ 40,675	\$ 22,515	\$ 72,174
<u>Deferred Inflows of Resources</u>								
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 18,922	\$ 17,420	\$ 73,849	\$ 24,929	\$ 127,742	\$ 88,165	\$ 68,268	\$ 69,524
<u>Pension Expense</u>								
Proportionate share of plan pension expense.....	\$ 61,365	\$ 54,695	\$ 13,912	\$ 99,522	\$ 4,225	\$ 67,445	\$ 1,934	\$ 68,426
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	3,079	4,595	(36,981)	(478)	(45,701)	(45,669)	(19,853)	(5,693)
Total Employer Pension Expense.....	\$ 64,444	\$ 59,290	\$ (23,069)	\$ 99,044	\$ (41,476)	\$ 21,776	\$ (17,919)	\$ 62,733
<u>Contributions</u>								
Statutory required contribution.....	\$ 59,470	\$ 56,227	\$ 25,667	\$ 93,590	\$ 19,101	\$ 77,872	\$ 20,184	\$ 61,262
Contribution in relation to statutory required contribution....	(59,470)	(56,227)	(25,667)	(93,590)	(19,101)	(77,872)	(20,184)	(61,262)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	Westford Housing Authority	Shirley Water District	Tyngsborough Housing Authority	Pepperell Housing Authority	Groton Housing Authority	Tyngsborough Water District
<u>Net Pension Liability</u>						
Ending net pension liability/(asset).....	\$ 800,216	\$ 366,517	\$ 545,494	\$ 237,848	\$ -	\$ 696,211
<u>Deferred Outflows of Resources</u>						
Differences between expected and actual experience.....	\$ 17,687	\$ 8,101	\$ 12,057	\$ 5,257	\$ -	\$ 15,388
Net difference between projected and actual investment earnings on pension plan investments.....	24,941	11,424	17,002	7,413	-	21,700
Changes of assumptions.....	2,672	1,224	1,821	794	-	2,325
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	202,687	53,414	10,291	7,159	-	93,706
Total Deferred Outflows of Resources.....	\$ 247,987	\$ 74,163	\$ 41,171	\$ 20,623	\$ -	\$ 133,119
<u>Deferred Inflows of Resources</u>						
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 37,878	\$ 115,921	\$ 25,172	\$ 7,093	\$ -	\$ 8,095
<u>Pension Expense</u>						
Proportionate share of plan pension expense.....	\$ 81,754	\$ 37,445	\$ 55,732	\$ 24,301	\$ -	\$ 71,129
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	34,912	(29,412)	(56)	(1,536)	573	30,116
Total Employer Pension Expense.....	\$ 116,666	\$ 8,033	\$ 55,676	\$ 22,765	\$ 573	\$ 101,245
<u>Contributions</u>						
Statutory required contribution.....	\$ 49,753	\$ 41,259	\$ 62,343	\$ 30,417	\$ -	\$ 56,624
Contribution in relation to statutory required contribution...	(49,753)	(41,259)	(62,343)	(30,417)	-	(56,624)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

Middlesex County Retirement System

Schedule of Pension Amounts by Employer (continued)

Year Ended December 31, 2024

	North Reading Housing Authority	West Groton Water	Ayer-Shirley Regional School District	Northern Middlesex Regional Emergency Communications Center	Totals
<u>Net Pension Liability</u>					
Ending net pension liability/(asset).....	\$ 31,705	\$ 78,523	\$ 4,896,180	\$ 3,998	\$ 1,627,283,168
<u>Deferred Outflows of Resources</u>					
Differences between expected and actual experience.....	\$ 701	\$ 1,736	\$ 108,221	\$ 89	\$ 35,968,087
Net difference between projected and actual investment earnings on pension plan investments.....	988	2,447	152,606	124	50,719,655
Changes of assumptions.....	106	262	16,348	10	5,433,275
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	18,524	44,716	975,510	108,429	39,041,193
Total Deferred Outflows of Resources.....	\$ 20,319	\$ 49,161	\$ 1,252,685	\$ 108,652	\$ 131,162,210
<u>Deferred Inflows of Resources</u>					
Changes in proportion and differences between employer contributions and proportionate share of contributions.....	\$ 43,871	\$ 19,313	\$ 319,560	\$ 238,786	\$ 39,041,193
<u>Pension Expense</u>					
Proportionate share of plan pension expense.....	\$ 3,237	\$ 8,022	\$ 500,211	\$ 412	\$ 166,734,486
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions.....	(25,963)	5,682	111,422	7,521	-
Total Employer Pension Expense.....	\$ (22,726)	\$ 13,704	\$ 611,633	\$ 7,933	\$ 166,734,486
<u>Contributions</u>					
Statutory required contribution.....	\$ 9,124	2,573	\$ 526,471	\$ 66,785	\$ 174,367,693
Contribution in relation to statutory required contribution...	(9,124)	(2,573)	(526,471)	(66,785)	(176,414,830)
Contribution deficiency/(excess).....	\$ -	\$ -	\$ -	\$ -	\$ (2,047,137)

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

Middlesex County Retirement System

Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

Year Ended December 31, 2024

NOTE A – Schedule of Employer Allocations

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

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

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the system. The Public Employee Retirement Administration Commission (PERAC) approves each system's proportionate share of the annual required contribution. PERAC can accept alternative allocation methodologies and as such the MCRS has elected to use an actuarial based allocation methodology. Accordingly, each member unit's proportionate share of the total pension liability has been calculated based on each member unit's actual current employees, retirees and inactive participants. Each member's share of the MCRS's net position at year end is calculated by starting with the balance carried forward from the prior year. Each member unit is then credited with the actual required contribution received during the year along with any excess contributions received. Each member unit's share is reduced by the actual payment made to their specific retirees. Net investment income is allocated based on each member's money-weighted rate of return. All other shared expenses are allocated based on the proportionate share of the total pension liability. The difference between the total pension liability and the net position is reported as the net pension liability.

The County of Middlesex was abolished on July 11, 1997, pursuant to Chapter 48 of the Acts of 1997. This Act required that active employees of Middlesex County and Middlesex Hospital be transferred to the Commonwealth. The legislation required that County and Hospital retirees and beneficiaries remain with the County Retirement System. The Commonwealth provided a mechanism, in the legislation, that fully funded the actuarially determined liability of those retirees. On December 31, 2018, the remaining liabilities for Middlesex County and the Middlesex Hospital retirees and beneficiaries were actuarially determined and are separately identified in the MCRS's funding schedule. No assets have been allocated

Middlesex County Retirement System

Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer

Year Ended December 31, 2024

to cover the remaining liability and therefore the liability has been allocated to the remaining member units.

The current employees, retirees, beneficiaries and inactive participants of the MCRS have been identified and their total pension liability has been actuarially determined. For transparency purposes, the MCRS has historically paid a contribution as an employer to itself. However, with the implementation of GASB 67 & 68 the net pension liability is allocated to each member unit.

NOTE B – Schedule of Pension Amounts by Employer

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

NOTE C – Changes in Assumptions and Plan Provisions

Changes in Assumptions – None.

Changes in Plan Provisions – January 1, 2024 – pursuant to chapter 269 of the Acts of 2022, the Board approved a one-time increase in the COLA from 3% to 5% effective July 1, 2022.

Other Information
(Unaudited)

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited

Year Ended December 31, 2024

	Middlesex County Retirement Board	Middlesex County	Middlesex Hospital	Town of Acton	Town of Ashby	Town of Ashland	Town of Ayer	Town of Bedford
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ -	\$ -	\$ -	\$ 844,067	\$ 3,692	\$ 791,546	\$ 924,485	\$ 1,493,900
June 30, 2027.....	-	-	-	2,463,754	57,896	2,079,930	1,472,107	2,942,381
June 30, 2028.....	-	-	-	(225,031)	(99,447)	(190,356)	206,548	(204,460)
June 30, 2029.....	-	-	-	(228,810)	2,548	(144,486)	(92,900)	(299,566)
Total Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense.....	\$ -	\$ -	\$ -	\$ 2,853,980	\$ (35,311)	\$ 2,536,634	\$ 2,510,240	\$ 3,932,255
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ -	\$ -	\$ -	\$ 69,476,805	\$ 1,729,422	\$ 47,210,421	\$ 27,254,608	\$ 71,987,669
Current discount rate (7.15%).....	\$ -	\$ -	\$ -	\$ 54,779,793	\$ 1,363,583	\$ 37,223,604	\$ 21,489,212	\$ 56,759,513
1% increase (8.15%).....	\$ -	\$ -	\$ -	\$ 42,417,846	\$ 1,055,868	\$ 28,823,495	\$ 16,639,824	\$ 43,950,810
Covered Payroll.....	\$ 1,306,465	\$ -	\$ -	\$ 16,755,168	\$ 1,107,656	\$ 17,364,829	\$ 8,736,882	\$ 23,145,430
Contributions as a percentage of covered payroll.....	37.12%	N/A	N/A	33.76%	24.28%	23.91%	28.97%	25.12%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Town of Billerica	Town of Boxborough	Town of Burlington	Town of Carlisle	Town of Chelmsford	Town of Dracut	Town of Dunstable	Town of Groton
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ 2,092,399	\$ 297,801	\$ 1,961,885	\$ 1,202,976	\$ 2,114,020	\$ 1,658,794	\$ 212,004	\$ (6,200)
June 30, 2027.....	5,131,105	681,889	4,857,285	1,565,794	4,116,888	2,509,507	395,093	963,961
June 30, 2028.....	(736,272)	93,445	(538,101)	384,485	31,301	(281,838)	126,341	(310,959)
June 30, 2029.....	(683,173)	(51,830)	(644,472)	(66,039)	(423,958)	(258,117)	(7,606)	(87,667)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense.....	\$ 5,804,059	\$ 1,021,305	\$ 5,636,597	\$ 3,087,216	\$ 5,838,251	\$ 3,628,346	\$ 725,832	\$ 559,135
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ 200,539,794	\$ 16,635,973	\$ 177,490,983	\$ 20,071,816	\$ 148,445,542	\$ 92,141,213	\$ 5,029,426	\$ 28,672,412
Current discount rate (7.15%).....	\$ 158,117,928	\$ 13,116,826	\$ 139,944,825	\$ 15,825,856	\$ 117,043,610	\$ 72,649,809	\$ 3,965,509	\$ 22,607,096
1% increase (8.15%).....	\$ 122,436,059	\$ 10,156,802	\$ 108,364,011	\$ 12,254,496	\$ 90,630,826	\$ 56,255,204	\$ 3,070,628	\$ 17,505,439
Covered Payroll.....	\$ 43,789,945	\$ 3,570,527	\$ 42,574,940	\$ 6,872,512	\$ 34,604,806	\$ 20,258,214	\$ 1,511,827	\$ 9,462,612
Contributions as a percentage of covered payroll.....	37.54%	37.12%	33.57%	21.66%	35.41%	37.89%	25.59%	28.04%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Town of Holliston	Town of Hopkinton	Town of Hudson	Town of Lincoln	Town of Littleton	Town of North Reading	Town of Pepperell	Town of Sherborn
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ 806,835	\$ 1,023,541	\$ 1,250,396	\$ 1,087,814	\$ 1,413,060	\$ 829,040	\$ (51,111)	\$ 637,114
June 30, 2027.....	2,147,260	2,373,035	2,350,090	1,487,310	1,773,259	1,895,789	314,366	891,565
June 30, 2028.....	44,316	(342,356)	(933,050)	(172,169)	(406,514)	(366,985)	(443,319)	124,915
June 30, 2029.....	(100,670)	(89,678)	(239,740)	(138,909)	(108,614)	(223,634)	(74,737)	(40,794)
Total Deferred Outflows/(Inflows) Recognized in								
Future Pension Expense.....	\$ 2,897,741	\$ 2,964,542	\$ 2,427,696	\$ 2,264,046	\$ 2,671,191	\$ 2,134,210	\$ (254,801)	\$ 1,612,800
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ 34,368,304	\$ 32,472,310	\$ 86,886,425	\$ 39,257,581	\$ 30,606,794	\$ 66,572,609	\$ 20,219,297	\$ 15,614,410
Current discount rate (7.15%).....	\$ 27,098,088	\$ 25,603,170	\$ 68,506,610	\$ 30,953,095	\$ 24,132,282	\$ 52,489,946	\$ 15,942,139	\$ 12,311,363
1% increase (8.15%).....	\$ 20,982,966	\$ 19,825,400	\$ 53,046,985	\$ 23,968,028	\$ 18,686,442	\$ 40,644,740	\$ 12,344,537	\$ 9,533,105
Covered Payroll.....	\$ 13,929,020	\$ 21,613,923	\$ 24,392,416	\$ 12,727,353	\$ 17,481,386	\$ 16,106,191	\$ 6,653,906	\$ 5,195,257
Contributions as a percentage of covered payroll.....	20.75%	15.24%	32.47%	25.54%	18.89%	34.48%	31.05%	25.28%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

		Town of Shirley	Town of Stow	Town of Sudbury	Town of Tewksbury	Town of Townsend	Town of Tyngsborough	Town of Wayland	Town of Westford
<u>Deferred Outflows/(Inflows) Recognized in</u>									
<u>Future Pension Expense</u>									
June 30, 2026.....	\$	298,383	\$ 576,616	\$ 832,394	\$ 2,213,694	\$ (26,127)	\$ 668,765	\$ 1,300,902	\$ 1,761,950
June 30, 2027.....		369,402	606,395	2,177,400	3,204,500	566,759	1,167,980	3,285,795	3,860,896
June 30, 2028.....		10,602	(9,427)	(438,750)	(286,443)	(76,006)	(206,429)	90,657	(568,459)
June 30, 2029.....		(33,804)	(59,909)	(225,971)	(439,413)	2,093	(73,338)	(251,471)	(203,459)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense.....	\$	<u>644,583</u>	\$ <u>1,113,675</u>	\$ <u>2,345,073</u>	\$ <u>4,692,338</u>	\$ <u>466,719</u>	\$ <u>1,556,978</u>	\$ <u>4,425,883</u>	\$ <u>4,850,928</u>
<u>Discount Rate Sensitivity</u>									
1% decrease (6.15%).....	\$	12,923,057	\$ 17,891,852	\$ 80,489,706	\$ 143,697,094	\$ 8,275,300	\$ 32,315,009	\$ 76,038,598	\$ 76,165,553
Current discount rate (7.15%).....	\$	10,189,334	\$ 14,107,038	\$ 63,463,043	\$ 113,299,641	\$ 6,524,756	\$ 25,479,144	\$ 59,953,515	\$ 60,053,614
1% increase (8.15%).....	\$	7,889,946	\$ 10,923,557	\$ 49,141,580	\$ 87,731,744	\$ 5,052,339	\$ 19,729,363	\$ 46,424,034	\$ 46,501,544
Covered Payroll.....	\$	2,481,107	\$ 4,729,851	\$ 21,068,326	\$ 27,644,071	\$ 4,629,359	\$ 10,838,556	\$ 23,305,774	\$ 30,542,782
Contributions as a percentage of covered payroll.....		43.61%	30.07%	32.25%	42.17%	20.36%	27.49%	26.98%	22.69%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Town of Weston	Town of Wilmington	Acton- Boxborough Regional School District	Acton Water Supply	Bedford Housing Authority	Billerica Housing Authority	Chelmsford Housing Authority	Chelmsford Water District
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ 1,989,469	\$ 1,669,667	\$ 705,316	\$ 119,884	\$ 11,068	\$ 49,500	\$ 202,312	\$ 149,777
June 30, 2027.....	3,116,571	3,262,436	1,649,068	202,004	23,693	172,537	270,202	362,461
June 30, 2028.....	(30,832)	(641,935)	(140,433)	(22,323)	587	86,068	(14,476)	(37,647)
June 30, 2029.....	(105,665)	(542,082)	(96,133)	(36,937)	(2,006)	(11,429)	(16,966)	(18,270)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense.....	\$ 4,969,543	\$ 3,748,086	\$ 2,117,818	\$ 262,628	\$ 33,342	\$ 296,676	\$ 441,072	\$ 456,321
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ 91,467,201	\$ 110,384,586	\$ 39,341,332	\$ 5,539,382	\$ 461,927	\$ 2,398,397	\$ 3,228,799	\$ 808,160
Current discount rate (7.15%).....	\$ 72,118,376	\$ 87,034,008	\$ 31,019,130	\$ 4,367,590	\$ 364,212	\$ 1,891,044	\$ 2,545,784	\$ 637,203
1% increase (8.15%).....	\$ 55,843,698	\$ 67,393,376	\$ 24,019,161	\$ 3,381,973	\$ 282,022	\$ 1,464,299	\$ 1,971,287	\$ 493,408
Covered Payroll.....	\$ 24,213,806	\$ 28,113,580	\$ 17,481,711	\$ 1,203,105	\$ 136,994	\$ 413,909	\$ 3,724,506	\$ 1,387,960
Contributions as a percentage of covered payroll.....	30.43%	39.11%	20.47%	29.49%	25.42%	29.33%	10.10%	3.96%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Dracut Housing Authority	Dracut Water Supply	East Chelmsford Water District	East Middlesex Mosquito Control	Greater Lowell Regional Vocation Technical School District	Groton- Dunstable Regional School District	Hudson Housing Authority	Lincoln- Sudbury Regional School District
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ (83,345)	\$ 70,551	\$ (536)	\$ 18,233	\$ 295,662	\$ 533,829	\$ 51,774	\$ 254,727
June 30, 2027.....	23,760	88,223	34,622	56,760	435,096	747,769	65,679	351,938
June 30, 2028.....	(30,290)	(24,866)	(4,721)	(20,832)	(158,925)	(31,212)	9,767	(57,594)
June 30, 2029.....	(10,670)	(22,004)	(1,706)	(9,208)	(92,073)	(81,436)	(4,722)	(60,444)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense.....	\$ (100,545)	\$ 111,904	\$ 27,659	\$ 44,953	\$ 479,760	\$ 1,168,950	\$ 122,498	\$ 488,627
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ 2,291,807	\$ 4,696,865	\$ 409,464	\$ 939,729	\$ 24,687,321	\$ 18,801,612	\$ 1,123,754	\$ 12,686,863
Current discount rate (7.15%).....	\$ 1,807,002	\$ 3,703,298	\$ 322,847	\$ 740,940	\$ 19,465,005	\$ 14,824,349	\$ 886,037	\$ 10,003,104
1% increase (8.15%).....	\$ 1,399,223	\$ 2,867,589	\$ 249,991	\$ 573,735	\$ 15,072,412	\$ 11,478,995	\$ 686,088	\$ 7,745,742
Covered Payroll.....	\$ 463,007	\$ 784,727	\$ 243,825	\$ 360,004	\$ 5,473,694	\$ 4,679,641	\$ 511,974	\$ 3,259,994
Contributions as a percentage of covered payroll.....	38.10%	43.21%	15.29%	19.33%	34.76%	31.29%	15.11%	29.92%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Nashoba Valley Technical High School District	North Chelmsford Water District	North Middlesex Regional School District	Shawsheen Valley Regional Vocational Technical School	South Middlesex Regional Vocational Technical School	Sudbury Water District	Tewksbury Housing Authority	Wayland Housing Authority
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ 11,229	\$ 128,766	\$ 364,218	\$ 157,617	\$ 116,290	\$ (244,373)	\$ 84,875	\$ (36,938)
June 30, 2027.....	44,014	217,022	668,575	252,674	214,468	(54,775)	127,558	8,318
June 30, 2028.....	(24,320)	62,900	(72,077)	(86,584)	(87,560)	(197,216)	39,731	(45,261)
June 30, 2029.....	(11,783)	(14,036)	(57,745)	(46,146)	(29,646)	(15,794)	(12,313)	(2,644)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense.....	\$ 19,140	\$ 394,652	\$ 902,971	\$ 277,561	\$ 213,552	\$ (512,158)	\$ 239,851	\$ (76,525)
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ 4,486,338	\$ 2,194,439	\$ 17,834,251	\$ 11,695,344	\$ 9,054,591	\$ 1,384,351	\$ 2,677,107	\$ 474,345
Current discount rate (7.15%).....	\$ 3,537,305	\$ 1,730,231	\$ 14,061,622	\$ 9,221,330	\$ 7,139,197	\$ 1,091,508	\$ 2,110,796	\$ 374,003
1% increase (8.15%).....	\$ 2,739,055	\$ 1,339,776	\$ 10,888,389	\$ 7,140,388	\$ 5,528,122	\$ 845,192	\$ 1,634,461	\$ 289,603
Covered Payroll.....	\$ 1,082,918	\$ 702,322	\$ 6,115,493	\$ 3,484,565	\$ 2,726,690	\$ 1,089,659	\$ 561,086	\$ 339,769
Contributions as a percentage of covered payroll.....	37.14%	14.48%	24.55%	27.71%	27.58%	15.40%	30.51%	17.61%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Hopkinton Housing Authority	Sudbury Housing Authority	Wilmington Housing Authority	Acton Housing Authority	Burlington Housing Authority	Ayer Housing Authority	Holliston Housing Authority	Littleton Housing Authority
<u>Deferred Outflows/(Inflows) Recognized in</u>								
<u>Future Pension Expense</u>								
June 30, 2026.....	\$ 16,679	\$ 16,580	\$ (34,855)	\$ 24,150	\$ (41,125)	\$ (31,739)	\$ (19,679)	\$ 8,539
June 30, 2027.....	21,828	18,239	(3,082)	53,441	17,476	(1,535)	(8,803)	(2,158)
June 30, 2028.....	1,281	1,176	(12,636)	(9,157)	(22,459)	(12,347)	(18,275)	(544)
June 30, 2029.....	(2,996)	(2,149)	2,449	(6,809)	911	(1,869)	1,004	(3,187)
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense.....	\$ 36,792	\$ 33,846	\$ (48,124)	\$ 61,625	\$ (45,197)	\$ (47,490)	\$ (45,753)	\$ 2,650
<u>Discount Rate Sensitivity</u>								
1% decrease (6.15%).....	\$ 761,828	\$ 679,024	\$ 172,696	\$ 1,235,520	\$ 52,455	\$ 837,263	\$ 24,030	\$ 849,473
Current discount rate (7.15%).....	\$ 600,672	\$ 535,384	\$ 136,164	\$ 974,160	\$ 41,359	\$ 660,150	\$ 18,947	\$ 669,777
1% increase (8.15%).....	\$ 465,121	\$ 414,566	\$ 105,436	\$ 754,325	\$ 32,026	\$ 511,176	\$ 14,671	\$ 518,631
Covered Payroll.....	\$ 106,674	\$ 101,180	\$ 195,724	\$ 541,138	\$ 233,489	\$ 196,504	\$ 107,978	\$ -
Contributions as a percentage of covered payroll.....	55.75%	55.57%	13.11%	17.30%	8.18%	39.63%	18.69%	N/A

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	Westford Housing Authority	Shirley Water District	Tyngsborough Housing Authority	Pepperell Housing Authority	Groton Housing Authority	Tyngsborough Water District
<u>Deferred Outflows/(Inflows) Recognized in</u>						
<u>Future Pension Expense</u>						
June 30, 2026.....	\$ 53,469	\$ (16,272)	\$ 10,079	\$ 3,069	\$ -	\$ 49,012
June 30, 2027.....	108,990	11,340	11,815	9,068	-	67,385
June 30, 2028.....	50,611	(33,011)	(3,108)	788	-	12,736
June 30, 2029.....	(2,961)	(3,815)	(2,787)	605	-	(4,109)
Total Deferred Outflows/(Inflows) Recognized in						
Future Pension Expense.....	\$ 210,109	\$ (41,758)	\$ 15,999	\$ 13,530	\$ -	\$ 125,024
<u>Discount Rate Sensitivity</u>						
1% decrease (6.15%).....	\$ 1,014,908	\$ 464,851	\$ 691,846	\$ 301,661	\$ -	\$ 882,999
Current discount rate (7.15%).....	\$ 800,216	\$ 366,517	\$ 545,494	\$ 237,848	\$ -	\$ 696,211
1% increase (8.15%).....	\$ 619,634	\$ 283,807	\$ 422,394	\$ 184,174	\$ -	\$ 539,100
Covered Payroll.....	\$ 460,096	\$ 265,519	\$ 144,373	\$ 112,383	\$ -	\$ 200,763
Contributions as a percentage of covered payroll.....	10.81%	15.54%	43.18%	27.07%	N/A	28.20%

Middlesex County Retirement System

Other Information – Schedule of Employer Allocations – Unaudited (Continued)

Year Ended December 31, 2024

	North Reading Housing Authority	West Groton Water	Ayer-Shirley Regional School District	Northern Middlesex Regional Emergency Communications Center	Totals
<u>Deferred Outflows/(Inflows) Recognized in</u>					
<u>Future Pension Expense</u>					
June 30, 2026.....	\$ (26,527)	\$ 10,504	\$ 246,714	\$ 10,223	\$ 35,113,028
June 30, 2027.....	6,954	23,557	667,450	(60,449)	70,991,580
June 30, 2028.....	(3,834)	(1,894)	40,633	(79,475)	(7,343,327)
June 30, 2029.....	(145)	(2,319)	(21,672)	(433)	(6,640,264)
Total Deferred Outflows/(Inflows) Recognized in					
Future Pension Expense.....	\$ (23,552)	\$ 29,848	\$ 933,125	\$ (130,134)	\$ 92,121,017
<u>Discount Rate Sensitivity</u>					
1% decrease (6.15%).....	\$ 40,211	\$ 99,590	\$ 6,209,789	\$ 5,070	\$ 2,063,871,162
Current discount rate (7.15%).....	\$ 31,705	\$ 78,523	\$ 4,896,180	\$ 3,998	\$ 1,627,283,168
1% increase (8.15%).....	\$ 24,550	\$ 60,803	\$ 3,791,278	\$ 3,096	\$ 1,260,060,391
Covered Payroll.....	\$ 33,190	\$ 238,976	\$ 4,525,595	\$ 1,128,722	\$ 591,548,334
Contributions as a percentage of covered payroll.....	27.49%	1.08%	11.63%	5.92%	29.82%