FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2021 AND 2020

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500 Victory Road, Marina Bay, Ouincy, MA 0217



Telephone: 617-786-7775 | Fax: 617-786-9919

Dorothy F. Di Pesa, CPA John F. Oteri, CPA

INDEPENDENT AUDITOR'S REPORT

To the Board of the Norfolk County Retirement System Canton, Massachusetts

Opinions

We have audited the accompanying financial statements of Norfolk County Retirement System (the System), which comprise the statements of fiduciary net position as of December 31, 2021 and 2020 and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the System's basic 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 fiduciary net position of Norfolk County Retirement System as of December 31, 2021 and 2020, and the changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

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

Responsibilities of Management for the Financial Statements

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

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

Auditor's Responsibilities for the Audit of the Financial Statements

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

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

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

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

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 3 through 7 and the supplementary Schedule of Changes in Net Pension Liability and Related Ratios, Investment Return, and Contributions, and the notes to the required supplementary information on pages 28 through 31 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 19, 2022 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

DI PESA & COMPANY

Di Pesa & Company

Certified Public Accountants Quincy, Massachusetts October 19, 2022



REQUIRED SUPPLEMENTARY INFORMATION MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) DECEMBER 31, 2021 AND 2020

The following discussion provides an overview and analysis of the fiduciary net position and changes in fiduciary net position of the Norfolk County Retirement System (the System or Plan) by management for the years ended December 31, 2021 and 2020. Please refer to the audited financial statements when reading this discussion.

Overview of the Financial Statements

The System's financial statements comprise the statements of fiduciary net position, statements of changes in fiduciary net position, notes to the financial statements and required supplementary information.

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

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pension benefits changed during the years ended December 31, 2021 and 2020. It reflects in total the contributions by members and participating employers, along with deductions for retirement benefits, refunds and withdrawals, and administrative expenses. Investment income from investing and securities lending activities is also presented.

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

The Required Supplementary Information includes management's discussion and analysis, schedules of changes in net pension liability and related ratios, schedule of investment return, schedules of contributions and related notes.

Financial Highlights and Analysis

• The net position restricted for pension benefits is available for payment of monthly retirement benefits and other qualified distributions to the System's participants. Net position restricted for pension benefits was \$1.4 billion at December 31. 2021 compared to \$1.2 billion at December 31, 2020. The increase in net position of \$224 million resulted primarily from an increase in the fair value of portfolio investments.

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2021 AND 2020

The following tables present the current and prior year condensed data on the System's financial statements.

Fiduciary Net Position

Fluuciary Net Position		
	2021	<u>2020</u>
Assets		
Cash and cash equivalents	\$ 33,483,696	\$ 31,454,138
Investments	1,390,544,668	1,170,755,871
Receivables	5,606,605	4,410,098
Total assets	1,429,634,969	1,206,620,107
Liabilities		
Accounts payable	<u>5,177,989</u>	<u>5,855,980</u>
Net Position		
Net position restricted for pensions	\$ <u>1,424,456,980</u>	\$ <u>1,200,764,127</u>
Changes in Fiduciary Net Position		
Additions		
Contributions	\$ 121,043,695	\$ 113,937,724
Net investment income	222,203,572	124,093,043
Other	<u>3,818,150</u>	4,146,800
Total additions	<u>347,065,417</u>	<u>242,177,567</u>
Deductions		
Benefits paid	119,566,434	109,037,328
Other	3,806,130	2,837,422
Total deductions	123,372,564	111,874,750
Change in net position	223,692,853	130,302,817
Net position restricted for pension		
benefits - beginning of year	1,200,764,127	<u>1,070,461,310</u>
Net position restricted for pension		
benefits – end of year	\$ <u>1,424,456,980</u>	\$ <u>1,200,764,127</u>

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2021 AND 2020

Norfolk County Retirement System 2021 Performance Summary

- The net performance for the Norfolk County Retirement System ("Norfolk") for 2021 was 18.52%. This performance exceeded the Primary Investment Policy Benchmarks, which returned 13.31%.
- Domestic Equity managers represented 33.8% of the portfolio as of December 31, 2021. Approximately 47% of the domestic equity assets were allocated to large capitalization equity mandates and the remaining assets were allocated to mid and small capitalization managers. Domestic equities had a 2021 net return of 22.6% and underperformed the Russell 3000 index that returned 25.7%.
- International Equity managers represented 15.1% of the portfolio as of December 31, 2021. Approximately 68% of the international equity assets were allocated to developed markets and the remaining to emerging markets. International equity managers' net return was 8.7%, which outperformed the MSCI AC World ex US (NET) benchmark return of 6.1%.
- Domestic Fixed Income Managers represented 20.4% of the portfolio as of December 31, 2021. The overall net return for these managers was 2.2% for the year, which exceeded the return of the Barclays Aggregate Bond Index of -1.5%.
- Real Estate investment managers had a net return of 16.7% in 2021 and represented 7.3% of the total portfolio as of year-end 2021. Norfolk's real estate exposure is comprised of core, value-add and opportunistic investment strategies. The real estate portfolio underperformed the NCREIF Property Index that returned 17.7% in 2021.
- Private Equity had a net return of 91.8% in 2021 and represented 10.0% of the total portfolio as of year-end 2021. Norfolk's private equity portfolio outperformed the Cambridge Associates U.S. Private Equity index, which returned 32.8%.
- Hedge Funds had a net return of 8.4% in 2021, which outperformed the 6.2% return
 of the HFRI Hedge Fund-of- Funds Composite Index. Hedge funds represented
 9.9% of the plan assets as of year-end 2021.
- Real Assets represented 1.7% of the portfolio as of December 31, 2021. Norfolk's real asset investment managers had a net return of 9.4% in 2021, which outperformed the Real Assets Index benchmark of 3.2%.

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2021 AND 2020

Norfolk County Retirement System 2020 Performance Summary

- The net performance for the Norfolk County Retirement System ("Norfolk") for 2020 was 11.93%. This performance was less than the Primary Investment Policy Benchmarks, which returned 13.18%.
- Domestic Equity managers represented 33.7% of the portfolio as of December 31, 2020. Approximately 44% of the domestic equity assets were allocated to large capitalization equity mandates and the remaining assets were allocated to mid and small capitalization managers. Domestic equities had a 2020 net return of 19.26% and underperformed the Russell 3000 index that returned 20.89%.
- International Equity managers represented 16.1% of the portfolio as of December 31, 2020. Approximately 76% of the international equity assets were allocated to developed markets and the remaining to emerging markets. International equity managers' net return was 14.29%, which outperformed the MSCI AC World ex US (NET) benchmark return of 11.77%.
- Domestic Fixed Income Managers represented 20.4% of the portfolio as of December 31, 2020. The overall net return for these managers was 8.32% for the year, which exceeded the return of the Barclays Aggregate Bond Index of 7.61%.
- Real estate investment managers had a net return of 3.25% in 2020 and represented 6.1% of the total portfolio as of year-end 2020. Norfolk's real estate exposure is comprised of core, value- add and opportunistic investment strategies. The real estate portfolio outperformed the NCREIF Property Index that returned 1.60% in 2020.
- Private equity had a net return of 23.75% in 2020 and represented 9.9% of the total portfolio as of year-end 2020. Norfolk's private equity portfolio underperformed the Cambridge Associates U.S. Private Equity Index, which returned 27.45%.
- Hedge funds had a net return of 1.73% in 2020, which underperformed the 10.88% return of the HFRI Hedge Fund-of- Funds Composite Index. Hedge funds represented 10.1% of the plan assets as of year-end 2020.
- Real Assets represented 2.0% of the portfolio as of December 31, 2020. Norfolk's Real Asset investment managers had a net return of 8.32% in 2020, which outperformed the Real Assets Index benchmark of 4.15%.

REQUIRED SUPPLEMENTARY INFORMATION MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued) DECEMBER 31, 2021 AND 2020

Other Information

This financial report is designed to provide a general overview of the System's finances. Questions concerning the information provided in this report or requests for additional financial information should be addressed to the Norfolk County Retirement Board, 480 Neponset Street #15, Canton, MA 02021.

STATEMENTS OF FIDUCIARY NET POSITION

DECEMBER 31, 2021 AND 2020

ASSETS

	<u>2021</u>	2020
CASH AND CASH EQUIVALENTS	\$ 33,483,696	\$ 31,454,138
INVESTMENTS, AT FAIR VALUE:		
Equities	214,745,141	250,418,181
Fixed Income	112,194,231	97,971,682
Pooled Funds:		
Equity	473,383,081	349,134,152
Fixed Income	177,894,534	145,324,087
Private Equity	167,299,450	133,853,030
Real Estate	104,383,044	72,609,790
Hedge	140,645,187	121,444,949
TOTAL INVESTMENTS, AT FAIR VALUE	1,390,544,668	1,170,755,871
RECEIVABLES: Member Contributions	2,603,890	1,989,996
Intergovernmental	1,928,797	170,633
Interest and Dividend Income Due	1,070,918	1,010,587
Receivable for Investments Sold	-	1,233,778
Miscellaneous	3,000	5,104
TOTAL RECEIVABLES	5,606,605	4,410,098
TOTAL ASSETS	1,429,634,969	1,206,620,107
<u>LIABILITIES</u>		
LIABILITIES:		
Accounts Payable	1,052,100	937,234
Payable for Investments Purchased	4,125,889	4,918,746
TOTAL LIABILITIES	5,177,989	5,855,980
NET POSITION RESTRICTED FOR PENSION BENEFITS	\$ 1,424,456,980	\$ 1,200,764,127

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

YEARS ENDED DECEMBER 31, 2021 AND 2020

	<u>2021</u>			<u>2020</u>	
ADDITIONS:					
Contributions:	_		_		
Employer	\$	85,675,573	\$	80,090,560	
Member		35,368,122		33,847,164	
Total Contributions		121,043,695		113,937,724	
Investment Income:					
Net Change in Fair Value of Investments		219,897,315		121,089,451	
Interest and Dividends		11,041,605		10,199,240	
Total Investment Income		230,938,920		131,288,691	
Less Investment Expenses		8,735,348		7,195,648	
Net Investment Income		222,203,572		124,093,043	
Other		3,818,150		4,146,800	
TOTAL ADDITIONS		347,065,417		242,177,567	
DEDUCTIONS:					
Benefits Paid		119,566,434		109,037,328	
Refunds of Contributions		2,384,004		1,672,248	
Administrative Expenses		1,422,126		1,165,174	
TOTAL DEDUCTIONS		123,372,564		111,874,750	
CHANGE IN NET POSITION		223,692,853		130,302,817	
NET POSITION RESTRICTED FOR PENSION BENEFITS:					
BEGINNING OF YEAR	1	,200,764,127		1,070,461,310	
END OF YEAR	<u>\$ 1</u>	,424,456,980	\$ ^	1,200,764,127	

NOTE 1 - PLAN DESCRIPTION

The Norfolk County Retirement System (the System or the Plan) is a cost-sharing multiple-employer contributory defined benefit governmental pension plan established under Chapter 32 of the Massachusetts General Laws ("MGL") covering all employees of governmental member units deemed eligible by the Norfolk 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 Plan is mandatory immediately upon the commencement of employment for all non-teaching permanent, full time employees.

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

The day-to-day operations of the System are managed by the Executive Director. The legislative body for the System is an Advisory Council consisting of full-time treasurers or other qualified officials of the member units. The Advisory Council meets at least twice annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

As of December 31, 2021 and 2020, the Plan's membership consisted of:

	<u>2021</u>	<u>2020</u>
Retirees and beneficiaries	3,728	3,612
Active participants	6,685	5,963
Inactive with a vested right to benefits		
or to receive refund of their contributions	3,098	3,394

The number of participating employers was 42 and 41 for 2021 and 2020, respectively.

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

Massachusetts Contributory Retirement System benefits are, with certain exceptions, uniform from system to system. The System 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 persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2021 AND 2020

NOTE 1 - PLAN DESCRIPTION (Continued)

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.

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 if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 55 years of age with 10 years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

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. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

Active members contribute between 5 and 9% of their gross regular compensation. Members joining the System after January 1, 1979 must contribute an additional 2% on regular compensation earned at a rate in excess of \$30,000. The percentage rate is keyed to the date upon which an employee's membership commences. 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 System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. In past years, retirement systems were paying only the actual retirement benefits that were due each year. Systems had no statutory authorization to put aside money for the future benefits of employees who are currently employed. Large unfunded liabilities resulted from operating under this pay-as-you-go basis. In 1977, legislation authorized local governments to appropriate funds to meet future pension obligations. In 1983, additional legislation was passed requiring the transfer of investment earnings (in excess of the amount credited to member accounts) into the Pension Reserve Fund. These initiatives have significantly reduced the rate of growth of the Retirement System's unfunded liabilities, and in some Systems have actually reduced such liability.

NOTE 1 – PLAN DESCRIPTION (Continued)

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

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

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, with at least ten years of creditable service, such employees are entitled to receive one hundred (100%) percent of the regular interest which has accrued upon those deductions. Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u>

Basis of Accounting and Financial Statement Presentation

The financial statements have been prepared using the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the standard-setting body for establishing governmental accounting and financial reporting principles. The significant accounting policies are described herein.

Reporting Entity

The System was established to provide retirement benefits to eligible employees of its member employers and their beneficiaries.

Cash and Cash Equivalents

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

Investments

Investments are reported at fair value. Fair values of securities held directly are based on quotations from national securities exchanges, except for pooled funds, alternative investments, real estate, and hedge funds, for which fair values are estimated as detailed below.

Pooled Equity and Fixed Income Funds – The fair value of shares in managed investment pools is based on unit values reported by the managers of those respective funds.

Pooled Private Equity Funds – Pooled private equity funds include holdings through equity interests in various limited partnerships. These investments are carried at the limited partnership interest or redemption value, the equivalent of net asset value, which approximates fair value. Values assigned to such investments are based on available information and do not necessarily represent amounts

NOTE 2 – <u>SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</u> (Continued)

Investments (Continued)

that may ultimately be realized in liquidation. Liquidation values depend largely on future circumstances, including marketability, and frequently cannot reasonably be estimated until at, or near, the liquidation date.

Pooled Real Estate Funds – Real estate investments consist of interests in commercial properties held by various partnerships and other limited liability entities, some of which utilize debt financing. Fair values of such holdings are reported based on net asset values of the entities, which are estimated using third-party appraisals and other information provided by the property managers.

Pooled Hedge Funds – The fair value of shares in managed hedge funds is based on unit values reported by the managers of those respective funds.

<u>Investments Sold and Investments Purchased</u>

Receivables for investments sold represent amounts due from brokers for unsettled security sales transactions at year end. Liabilities for investments purchased represent amounts due to brokers for unsettled purchases at year end.

Revenue Recognition

Contributions are recognized as additions in the period when they become due pursuant to formal statutory obligations. Investment income is recognized when earned.

Benefit Payments and Refunds of Contributions

Benefits and refunds to Plan members and beneficiaries are recognized as expenses when due and payable in accordance with the terms of the Plan.

Intergovernmental, Reimbursements and Transfers to Other Systems

When members transfer to or from other Massachusetts public retirement systems, their cumulative contributions are transferred from the prior employer to the respective Massachusetts public retirement system, and are recognized as receipts or expenses when paid.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from estimates. Fair values of real estate, alternative investment and hedge fund holdings are generally estimated absent readily available market values, and such estimates may be materially different from values that would have been used if a ready market existed

NOTE 3 – PLAN ADMINISTRATION

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

The Advisory Council consists of the full time treasurers, elected or appointed, for each town, unit or district within the System. The members of the Advisory Council elect the second member of the Board of Retirement as well as a Chair from among its members. The Advisory Council is required by statute to meet twice per year.

The investment of the System's funds is the responsibility of the Board. Disability retirement allowances must be approved by the Board and are then submitted to the PERAC Actuary for verification prior to payment. All expenses incurred by the System must be approved by a majority vote of the Board.

Board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. The MACRS program for the System provides \$50,000,000 fiduciary protection for Trustees and employees, as well as a \$1,000,000 fidelity policy for crime coverage.

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS

The System's investments are measured and reported at fair value. The fair value hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 Inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets that can be accessed at the measurement date.
- Level 2 Inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active.
- Level 3 Unobservable inputs based on the best information available, using assumptions in determining the fair value of investments.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest to Level 3 inputs.

In certain instances, where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

Fair value of certain investments that do not have a readily determinable fair value is established using net asset value (or its equivalent) as a practical expedient. These investments are not categorized according to the fair value hierarchy.

The following tables present a summary of the fair value hierarchy of investments and short-term holdings that are measured at fair value on a recurring basis at December 31, 2021 and 2020 (in thousands):

<u>2021</u>

			Fair Value Measurements Using					
			Quoted Prices in					
				larkets for	Signifi		ificant	
Investments by Fair Value Level		Total		al Assets /el 1)		able Inputs evel 2)	_	servable (Level 3)
Short-Term Investment Funds	\$	24,697	\$	<u> </u>	\$	<u>24,697</u>	\$	(<u>LCVCI O)</u> -
Equities:	·		·	_			•	_
Common Stock		<u>214,745</u>		<u>88,165</u>		<u>82,051</u>		44,529
Total Equities		<u>214,745</u>		<u>88,165</u>		<u>82,051</u>		<u>44,529</u>
Fixed Income:								
Corporate Bonds		63,839		33,778		29,415		646
Government Issues		48,022		47,964		-		58
Municipals Total Fixed Income		<u>333</u> 112,194		<u>333</u> 82,075		29,415		704
Pooled Funds:		112,134		02,073		29,413		704
Equity		473,383		_		_		473,383
Fixed Income		136,398		_		-		136,398
Private Equity		-		-		-		· -
Real Estate		37,367		-		-		37,367
Hedge		<u>-</u> _				<u>-</u> _		
Total Pooled Funds		<u>647,148</u>						<u>647,148</u>
Total Investments by Fair	Φ.	000 704	Φ.	470.040	Φ.	100 100	Φ.	000 004
Value Level	\$	998,784	<u>\$</u>	170,240	<u>\$</u>	<u>136,163</u>	\$	692,381
Investments Measured at Net								
Asset Value (NAV):								
Pooled Fixed Income Funds	\$	41,497						
Pooled Private Equity Funds		167,300						
Pooled Real Estate Funds		67,016						
Pooled Hedge Funds		140,645						
Total Investments Measured at NA	V \$	416,458						
Total Investments Measured	Φ	4 445 040						
at Fair Value	\$	1,415,242						

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

2020

			Fair Value Measurements Using					
			Quoted Prices in					
			Active N	larkets for	Signi	ficant Other	Sig	gnificant
			Identic	al Assets	Obse	rvable Inputs	Uno	bservable
Investments by Fair Value Level		<u>Total</u>	<u>(Le</u>	vel 1)		Level 2)	Input	s (Level 3)
Short-Term Investment Funds	\$	20,855	\$	<u> </u>	\$	20,855	\$	_ <u>-</u>
Equities:								
Common Stock		247,529		247,529		-		-
Real Estate Investment Trusts		<u>2,889</u>		<u>2,889</u>		<u>-</u>		
Total Equities		<u>250,418</u>		<u>250,418</u>		<u>-</u>		
Fixed Income:								
Collateralized Mortgage								
Obligations		4,207		-		4,207		-
Corporate Bonds		62,549		-		62,549		-
Government Issues		30,103		10,874		19,229		-
Municipals		1,113		-		1,113		-
Total Fixed Income		97,972		10,874		87,098		-
Pooled Funds:								
Equity		349,134		-		-		349,134
Fixed Income		107,834		-		-		107,834
Private Equity		22,997		-		-		22,997
Real Estate		46,623		-		-		46,623
Hedge								
Total Pooled Funds		526,588		=		=		526,588
Total Investments by Fair								
Value Level	\$	895,833	\$	261,292	\$	107,953	\$	526,588
Investments Measured at Net								
Asset Value (NAV):								
Pooled Fixed Income Funds	\$	37,490						
Pooled Private Equity Funds		110,856						
Pooled Real Estate Funds		25,987						
Pooled Hedge Funds		121,445						
Total Investments Measured at NA	√\$	295,778						
Total Investments Measured	•							
at Fair Value	\$	1,191,611						

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2021 AND 2020

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

Reconciliation of Total Investments Measured at Fair Value (listed above) to the Statement of Fiduciary Net Position (in thousands):

riduolary Not roomon (in mousands).	<u>2021</u>	2020
Total Investments Measured at Fair Value per above:	\$1,415,242	\$1,191,611
Short-Term Investment Funds classified as Cash and Cash Equivalents on Statement of Fiduciary Net Position	<u>(24,697</u>)	(20,855)
Total Investments on Statement of Fiduciary Net Position	\$ <u>1,390,545</u>	\$ <u>1,170,756</u>

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u>

The following disclosures represent essential risk information about the System's deposits and investments.

Custodial Credit Risk - Deposits

Custodial credit risk is the risk that in the event of bank failure, the System's deposits may not be returned. The System carries deposits that are insured by FDIC insurance up to \$250,000 per financial institution. The System evaluates each financial institution and assesses the level of risk of each institution and only uses those institutions with an acceptable level of risk. At December 31, 2021 and 2020, the System had cash balances at two financial institutions in excess of FDIC limits of approximately \$10,164,000 and \$11,306,000, respectively.

Investment Policy

The provisions of M.G.L. Chapter 32 § 23 (2) and the Plan's own investment policy govern the System's investment practice. The Board retains an investment consultant to assure that strategic investment diversification is attained, to employ investment managers with expertise in their respective asset classes, and to closely monitor the implementation and performance of the respective investment strategies. The System invests in stocks (domestic and foreign), fixed income securities (domestic and foreign), private equity, real estate and hedge funds.

Custodial Credit Risk - Investments

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System would not be able to recover the value of investment or securities. The System's investments are held by the System's custodian and registered in the System's name. All of the System's securities are held by the System's custodial bank in the System's name, except for investments in pooled funds, which by their nature, do not have securities that are used as evidence of the investment.

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Interest Rate Risk

The following is a listing of the System's fixed income investments (in thousands) and related maturity schedule (in years) as of December 31, 2021 and 2020:

202	21
-----	----

Investment Type	Fair Value	Less than 1	<u>1 – 5</u>	<u>6 – 10</u>	More than 10
U.S. Agencies Domestic Corporate International Corporate Domestic Government	\$ 48,022 63,839 - 333 \$ <u>112,194</u>	\$ - 1,060 - - - \$ <u>1,060</u>	\$ 7,378 16,580 - 333 \$ <u>24,291</u>	\$ 4,462 7,447 - - \$ <u>11,909</u>	\$36,182 38,752 - - \$ <u>74,934</u>
		<u>2020</u>			
Investment Type	Fair Value	Less than 1	<u>1 – 5</u>	<u>6 – 10</u>	More than 10
U.S. Agencies Domestic Corporate International Corporate Domestic Government	\$ 30,104 58,714 8,041 	\$ - 2,405 - - <u>-</u> \$ <u>2,405</u>	\$ 4,695 13,119 4,965 1,113 \$ 23,892	\$ 2,218 4,740 1,934 ————————————————————————————————————	\$23,191 38,450 1,142 \$ <u>62,783</u>

The System's guidelines do not specifically address limits on maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The managers of each fixed income portfolio are responsible for determining the maturity and commensurate returns of their portfolio.

Credit Risk

The System allows investment managers to apply discretion under the Prudent Person rule. Investments are made, as a prudent person would be expected to act with discretion and intelligence, to seek reasonable income, preserve capital and, in general, avoid speculative investments.

The System's fixed income investments as of December 31, 2021 and 2020 were rated by Standard & Poor's and/or an equivalent national rating organization and the ratings are presented below (in thousands) using the Standard & Poor's rating scale:

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2021 AND 2020

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Credit Risk (Continued)

<u> 2021</u>

Investment <u>Type</u>	Fair <u>Value</u>	<u> AAA</u>	<u>AA</u>	<u>A</u>	<u>BBB</u>	<u>BB</u>	<u>B</u>	CC to D	Not <u>Rated</u>
U.S. Agencies	\$ 48,022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,022
Domestic									
Corporate	63,839	4,874	915	9,510	27,032	4,004	1,226	470	15,808
International									
Corporate	-	-	-	-	-	-	-	-	-
Domestic									
Government	333	-	-	-	333	-	-	-	-
Pooled Funds	177,894	-	-	-	-	-	-	-	177,894
_	\$ 290,088	\$ 4,874	\$ 915	\$ 9,510	\$ 27,365	\$ 4,004	\$1,226	\$ 470	\$ 241,724

2020

Investment <u>Type</u>	Fair <u>Value</u>	AAA	<u>AA</u>	<u>A</u>	<u>BBB</u>	<u>BB</u>	<u>B</u>	CC to D	Not <u>Rated</u>
U.S. Agencies	\$ 30,104	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,104
Domestic									
Corporate	58,714	4,823	789	5,128	22,367	7,337	1,139	551	16,580
International									
Corporate	8,041	-	-	886	5,294	1,861	-	-	-
Domestic									
Government	1,113	-	655	-	458	-	-	-	-
Pooled Funds	145,324	-	-	-	-	-	-	-	145,324
<u>-</u>	\$ 243,296	\$ 4,823	\$ 1,444	\$ 6,014	\$ 28,119	\$ 9,198	\$1,139	\$ 551	\$ 192,008

Concentration Risk

Other than investments in two and four pooled funds, respectively, the System has no individual investment at fair value that exceeds 5% of total investments at December 31, 2021 and 2020. The System adheres to the provisions of MGL Chapter 32 § 23, the rules and regulations of PERAC, and the Plan's own investment policy when managing concentration risk.

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Similar to the investments in domestic equities, the System employs or encourages its investment advisor to employ diversification, asset allocation, and quality strategies. Risk of loss arises from changes in currency exchange rates. The System's exposure to foreign currency risk as of December 31, 2021 and 2020 is presented on the following tables (in thousands):

<u>202</u>1

<u>Currency</u>	Cash and Cash Equivalents	<u>Equity</u>	Fixed Income	Pooled <u>Funds</u>	<u>Total</u>
Argentine Peso	\$ -	\$ -	\$ -	\$ 26	\$ 26
Australian Dollar	-	-	-	3,348	3,348
Bermudian Dollar	-	-	-	303	303
Brazilian Real	-	-	-	2,748	2,748
British Pound Sterling	-	16,552	-	11,215	27,767
Canadian Dollar	-	10,432	-	400	10,832
Cayman Islands Dollar	-	-	-	406	406
Chinese Yuan Renminbi	-	-	-	25,361	25,361
Czech Koruna	-	-	-	596	596
Danish Kroner	-	3,264	-	210	3,474
Euro Currency	-	40,244	-	41,762	82,006
Hong Kong Dollar	-	1,494	-	792	2,286
Indian Rupee	-	· -	-	7,192	7,192
Indonesian Rupiah	-	-	-	1,659	1,659
Israeli Shekel	-	-	-	263	263
Japanese Yen	-	17,792	-	16,262	34,054
Jordanian Dinar	-	_	-	115	115
Kazakhstani Tenge	-	-	-	74	74
Kenyan Shilling	-	-	-	325	325
Macanase Pataca	-	-	-	508	508
Mexican Peso	-	-	-	378	378
New Russian Ruble	-	-	-	3,622	3,622
Peruvian Sol	-	-	-	575	575
Philippine Peso	-	-	-	745	745
Singapore Dollar	-	313	-	_	313
South African Rand	-	-	-	2,166	2,166
South Korean Won	-	-	-	9,018	9,018
Swedish Krona	-	-	-	1,608	1608

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Foreign Currency Risk (Continued)

2021 (Continued)

Currency	Cash and Cash Equivalents	<u>Equity</u>	Fixed Income	Pooled <u>Funds</u>	<u>Total</u>
Swiss Franc	-	15,584	-	1,051	16,635
Tanzanian Shilling	-	-	-	274	274
Thai Baht	-	-	-	1,361	1,361
Taiwan New Dollar	-	-	-	9,296	9,296
Turkish Lira	-	-	-	521	521
Ukranian Hryvnia Total Securities Subject to	<u> </u>			<u>88</u>	<u>88</u>
Foreign Currency Risk	\$ <u></u>	\$ <u>105,675</u>	\$ <u></u> _	\$ <u>144,268</u>	\$ <u>249,943</u>

2020

<u>Currency</u>	Cash and Cash Equivalents	<u>Equity</u>	Fixed Income	Pooled <u>Funds</u>	<u>Total</u>
Argentine Peso	\$ -	\$ -	\$ -	\$ 253	\$ 253
Australian Dollar	-	-	-	3,696	3,696
Bermudian Dollar	-	-	-	1,382	1,382
Brazilian Real	-	-	-	2,832	2,832
British Pound Sterling	-	9,365	-	9,122	18,487
Canadian Dollar	=	288	-	244	532
Cayman Islands Dollar	-	-	-	4,120	4,120
Chinese Yuan Renminbi	-	-	-	19,986	19,986
Czech Koruna	-	-	-	283	283
Danish Kroner	-	2,169	-	643	2,812
Euro Currency	-	35,227	-	28,224	63,451
Hong Kong Dollar	-	2,490	-	2,111	4,601
Indian Rupee	-	-	-	4,140	4,140
Indonesian Rupiah	-	-	-	747	747
Israeli Shekel	-	-	-	298	298
Japanese Yen	-	13,646	-	19,708	33,354
Kazakhstani Tenge	-	-	-	303	303
Kenyan Shilling	-	-	-	348	348
Mexican Peso	-	-	-	891	891
New Russian Ruble	-	-	-	1,480	1,480

NOTE 5 – <u>DEPOSIT AND INVESTMENT RISK DISCLOSURES</u> (Continued)

Foreign Currency Risk (Continued)

2020 (Continued)

<u>Currency</u>	Cash and Cash Equivalents	<u>Equity</u>	Fixed Income	Pooled <u>Funds</u>	<u>Total</u>
Philippine Peso		-	-	238	238
Singapore Dollar	=	1,021	-	-	1,021
South African Rand	-	-	-	2,021	2,021
South Korean Won	-	-	-	5,954	5,954
Swedish Krona	=	634	-	1,497	2,131
Swiss Franc	=	13,461	-	553	14,014
Thai Baht	=	-	-	1,165	1,165
Taiwan New Dollar	-	-	-	10,298	10,298
Turkish Lira Total Securities Subject to	<u></u>			<u>496</u>	<u>496</u>
Foreign Currency Risk	\$ <u></u>	\$ <u>78,301</u>	\$ <u></u>	\$ <u>123,033</u>	\$ <u>201,334</u>

NOTE 6 – <u>LEGALLY REQUIRED RESERVES</u>

The System's legally required reserves are all funded at levels required by state statute and were as follows as of December 31:

	<u>2021</u>	<u>2020</u>
Annuity Savings Fund	\$ 314,733,667	\$ 308,439,412
Annuity Reserve Fund	89,264,339	84,381,588
Military Service Fund	38,029	37,991
Pension Fund	12,717,120	17,946,471
Pension Reserve Fund	1,007,703,825	789,958,665
Expense Fund	_	<u>-</u>
	\$ <u>1,424,456,980</u>	\$ <u>1,200,764,127</u>

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2021 AND 2020

NOTE 6 - LEGALLY REQUIRED RESERVES (Continued)

The *Annuity Savings Fund* is the fund in which member's contributions are deposited. Voluntary contributions, redeposits, and transfers to and from other systems are also accounted for in this fund. Members' contributions to the fund earn interest at a rate determined by PERAC. Interest for some members who withdraw from the System with less than 10 years of service is transferred to the Pension Reserve Fund. Upon retirement, a member's contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of 10 years of inactivity.

The Annuity Reserve Fund is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and the Military Service Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The *Military Service Fund* contains contributions and interest for members while on military leave for service in the Armed Forces who will receive creditable service for the period of that leave. Creditable service is granted provided the member returns to the same governmental unit within two years of the date of discharge from the military. Upon retirement, a member's contributions and interest are transferred to the Annuity Reserve Fund.

The *Pension Fund* contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The *Pension Reserve Fund* contains the amounts set aside by the system for the purpose of establishing a reserve to meet future pension liabilities. Any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund and Military Service Fund is credited to the Pension Reserve Fund. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain or loss of market valued investments as of the valuation date is credited to the Pension Reserve Fund.

The *Expense Fund* contains amounts transferred from investment income for the purpose of administering the System.

The *Investment Income Account* is credited with all interest and dividends derived from invested funds. At the end of the year, the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Special Military Credit Service Fund and Expense Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

NOTE 7 – FUNDING POLICY

Participating employers are required to pay into the System their share of the remaining actuarially determined contribution and plan administration costs, which are apportioned among the participating employers based on an actuarial computation.

The participating employers' budgeted contributions to the System for the employer fiscal years ended June 30, 2022 and 2021 were as follows (in thousands):

	,	<u>2022</u>	<u>2021</u>
Town of Avon	\$	1,590	\$ 1,446
Avon Housing Authority		15	14
Town of Bellingham		3,338	3,628
Bellingham Housing Authority		51	34
Town of Canton		6,581	6,144
Canton Housing Authority		113	100
Town of Cohasset		3,274	2,686
Cohasset Housing Authority		20	19
Norfolk County		4,302	4,137
Charles River Pollution Control		172	192
Town of Dover		1,504	1,550
Dover-Sherborn Regional High School		834	961
Town of Foxboro		5,576	5,283
Foxboro Housing Authority		115	88
Town of Franklin		6,819	6,290
Franklin Housing Authority		107	100
Town of Holbrook		2,444	2,335
Holbrook Housing Authority		58	45
King Philip Regional School District		894	819
Town of Medfield		3,162	3,027
Medfield Housing Authority		17	16
Town of Medway		3,332	2,867
Medway Housing Authority		81	99
Metacomet Emergency Communication		371	-
Town of Millis		2,243	1,984
Millis Housing Authority		58	48
Town of Norfolk		2,633	2,464
Norfolk Housing Authority		39	37
Norfolk Mosquito Control		246	229
Town of Plainville		2,438	2,151
Town of Randolph		7,170	6,805
Randolph Housing Authority		117	109

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2021 AND 2020

NOTE 7 – FUNDING POLICY (Continued)

Town of Sharon	5,027	4,838
Sharon Housing Authority	41	14
Town of Stoughton	6,829	6,423
Stoughton Housing Authority	114	89
Town of Walpole	6,083	5,549
Walpole Housing Authority	69	63
Town of Westwood	6,242	5,896
Town of Wrentham	2,452	2,342
Wrentham Housing Authority	32	31
Dedham Westwood Water District	636	600
	\$87,239	\$81,552

NOTE 8 – <u>NET PENSION LIABILITY</u>

The components of the net pension liability of the System as of December 31, 2021 and 2020, are as follows:

	<u>2021</u>	<u>2020</u>
Total Pension Liability	\$1,793,000,074	\$1,711,518,701
Fiduciary Net Position	<u>1,424,456,980</u>	<u>1,200,764,127</u>
System's Net Pension Liability	\$ <u>368,543,094</u>	\$ <u>516,754,574</u>
Fiducian Net Desition		

Fiduciary Net Position as a percentage of

total pension liability 79.4% 70.2%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2022. The following actuarial assumptions were applied to all periods included in the measurement:

Actuarial cost method: Entry Age Normal Cost Method

Amortization method Open-Level percent of payroll

Asset valuation method Market value

Investment rate of return 7.75%

Projected salary increases 3.5% - 5.5%

Inflation 3.0%

Cost of living increases 3.0% of first \$18,000

Mortality: The RP-2014 Blue Collar Mortality Table with Scale

with MP-2014

NOTE 8 - NET PENSION LIABILITY (Continued)

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

			Long-term			
	Target		Expected	Real		
Asset Class	Allocation		Rate of Re	<u>eturn</u>		
	<u> 2021</u>	<u>2020</u>	<u>2021</u>	2020		
Domestic Equity	30.5%	30.5%	7.0%	6.6%		
International Equities	15.5	15.5	7.7%	8.0%		
Fixed Income	20.5	20.5	4.3%	3.8%		
Real Estate	9.5	9.5	6.9%	8.2%		
Private Equity	10.0	10.0	9.4%	9.9%		
Hedge Funds	11.5	11.5	8.6%	7.2%		
Real Assets	2.5	2.5	8.9%	8.2%		
Total	<u>100.0</u> %	<u>100.0</u> %				

The annual money-weighted rate of return on investments, net of investment expense was 18.52% and 11.93% for the years ended December 31, 2021 and 2020, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The above was the Board's adopted asset allocation policy and best estimates of real rates of return for each major asset class as of December 31, 2021 and 2020.

Discount Rate

The discount rate used to measure the total pension liability as of December 31, 2021 and 2020 was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Under Chapter 32 of the MGL, employers are required to make the necessary contributions such that the Plan reaches full funding status by 2040. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current Plan members. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System as of December 31, 2021 and 2020. For 2021 and 2020, the net pension liability was calculated using the discount rate of 7.75%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one-percentage point lower (6.75%) or one-percentage point higher (8.75%) than the current rate.

NOTE 8 - NET PENSION LIABILITY (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate (Continued)

	<u>2021</u>		
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
System's Net Pension Liability	\$555,622,368	\$368,543,094	\$209,554,987
	<u>2020</u>	0	
	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
System's Net Pension Liability	\$687,611,099	\$510,754,574	\$357,870,076

NOTE 9 – LEASE COMMITMENTS

The System leases office space under an operating lease through August 2026. The lease also provides for the payment of common area costs, real estate taxes and utilities. Future minimum lease payments under the lease is as follows:

<u>Year</u>	<u>Amount</u>
2022	\$ 49,250
2023	50,750
2024	52,250
2025	53,750
2026	36,500
Total	\$ <u>242,500</u>

Rent expense for the years ended December 31, 2021 and 2020 was \$62,546 and \$60,342, respectively.

NOTE 10 – UNCERTAINTIES

The System is, from time to time, involved in legal matters arising in the normal course of its administration of member benefits that, in the opinion of management, will not have a material effect on the net assets of the System.

NOTE 11 – SUBSEQUENT EVENTS

The System has performed an evaluation of subsequent events through October 19, 2022, the date the basic financial statements were available to be issued. No material events were identified by the System.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

YEARS ENDED DECEMBER 31, 2014 - 2021

<u>2021</u>	2020	2019	2018	<u>2017</u>	2016	2015	<u>2014</u>
TOTAL PENSION LIABILITY:							
Service Cost 38,807,940	\$ 37,495,594	\$ 36,227,627	\$ 33,120,792	\$ 34,738,004	\$ 33,401,927	\$ 31,963,567	\$ 31,799,628
Interest on Liability and Service Cost 131,012,909	127,157,996	119,795,961	116,162,593	107,709,293	103,990,120	106,603,992	102,271,303
Difference Between Actual and Expected Experience 33,610,962	-	41,916,868	-	61,837,812	-	13,828,826	-
Assumption Changes -	-	-	-	36,207,214	-	(57,518,820)	-
Change in Plan Provisions -	-	5,395,128	-	12,205,895	-	-	-
Benefit Payments, Including Refunds of Contributions (121,950,438)	(110,709,576)	(108,549,848)	(102,577,621)	(94,665,189)	(89,903,327)	(84,888,359)	(81,095,471)
NET CHANGE IN TOTAL PENSION LIABILITY 81,481,373	53,944,014	94,785,736	46,705,764	158,033,029	47,488,720	9,989,206	52,975,460
TOTAL PENSION LIABILITY - BEGINNING OF YEAR 1,711,518,701	1,657,574,687	1,562,788,951	1,516,083,187	1,358,050,158	1,310,561,438	1,300,572,232	1,247,596,772
TOTAL PENSION LIABILITY - END OF YEAR (a) \$ 1,793,000,074	\$ 1,711,518,701	\$ 1,657,574,687	\$ 1,562,788,951	\$ 1,516,083,187	\$ 1,358,050,158	\$ 1,310,561,438	\$ 1,300,572,232
CHANGE IN FIDUCIARY NET POSITION							
Contributions - Employer 85,675,573	80,090,560	74,899,528	69,957,756	\$ 64,009,904	\$ 58,539,478	\$ 53,201,068	\$ 48,383,549
Contributions - Member 35,368,122	33,847,164	33,722,562	32,290,608	29,351,605	29,448,483	26,920,012	26,322,747
Net Investment Income 222,203,572	124,093,043	156,013,794	(53,017,332)	125,637,080	68,848,066	(11,383,452)	34,539,916
Benefit Payments, Including Refunds of Contributions (121,950,438)	(110,709,576)	(108,549,848)	(102,577,621)	(94,665,189)	(89,903,327)	(84,888,359)	(81,095,471)
Administrative Expenses (1,422,126)	(1,165,174)	(1,233,819)	(1,215,116)	(1,215,601)	(1,193,583)		(1,077,892)
Other <u>3,818,150</u>	4,146,800	3,760,532	3,331,428	3,933,503	2,939,696	2,711,397	2,021,260
NET CHANGE IN FIDUCIARY NET POSITION 223,692,853	130,302,817	158,612,749	(51,230,277)	127,051,302	68,678,813	(14,598,305)	29,094,109
FIDUCIARY NET POSITION - BEGINNING OF YEAR 1,200,764,127	1,070,461,310	911,848,561	963,078,838	836,027,536	767,348,723	781,947,028	752,852,919
FIDUCIARY NET POSITION - END OF YEAR (b) \$ 1,424,456,980	\$ 1,200,764,127	\$ 1,070,461,310	\$ 911,848,561	\$ 963,078,838	\$ 836,027,536	\$ 767,348,723	\$ 781,947,028
NET PENSION LIABILITY - END OF YEAR (a) - (b) \$ 368,543,094	\$ 510,754,574	\$ 587,113,377	\$ 650,940,390	\$ 553,004,349	\$ 522,022,622	\$ 543,212,715	\$ 518,625,204
FIDUCIARY NET POSITION as a PERCENTAGE OF							
TOTAL PENSION LIABILITY 79.4%	70.2%	64.6%	58.3%	63.5%	61.6%	58.6%	60.1%
COVERED EMPLOYEE PAYROLL \$ 339,571,217	\$ 322,391,403	\$ 311,489,280	\$ 299,245,268	\$ 289,125,863	\$ 279,489,744	\$ 267,454,300	\$ 246,722,941
NET PENSION LIABILTY as a PERCENTAGE OF	450.40/	100 50/	0.47.50/	404.00/	100.00/	202.40/	0.10.00/
COVERED EMPLOYEE PAYROLL 108.5%	158.4%	188.5%	217.5%	191.3%	186.8%	203.1%	210.2%

This schedule is intended to present 10 years of data. Additional years will be presented when available.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF INVESTMENT RETURN

YEARS ENDED DECEMBER 31, 2014 - 2021

Annual Money-Weighted Rate of Return, Net of Investment Expense:

2021	18.52%
2020	11.93%
2019	16.28%
2018	-4.54%
2017	14.81%
2016	8.59%
2015	-0.75%
2014	5.07%

This schedule is intended to present 10 years of data. Additional years will be presented when available.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF CONTRIBUTIONS

YEARS ENDED DECEMBER 31, 2014 - 2021

	2021	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially Determined Contribution	\$ 87,239,000	\$ 81,552,000	\$ 76,217,000	\$ 71,227,000	\$ 65,170,000	\$ 59,628,000	\$ 54,208,000	\$ 49,280,000
Actual Contributions in Relation to Actuarially Determined Contribution	87,239,000	81,552,000	76,217,000	71,227,000	65,170,000	59,628,000	54,208,000	49,280,000
Contribution Deficiency (Excess)	\$ -	\$ -	<u>\$</u>	\$ -	\$ -	<u>\$</u>	\$ -	\$ -
Covered-Employee Payroll	\$ 339,571,217	\$ 322,391,403	\$ 311,489,280	\$ 299,245,268	\$ 289,125,863	\$ 279,489,744	\$ 267,454,300	\$ 246,722,941
Contributions as a Percentage of Covered-Employee Payroll	25.7%	6 25.3%	24.5%	23.8%	22.5%	21.3%	20.3%	20.0%

This schedule is intended to present 10 years of data. Additional years will be presented when available.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

DECEMBER 31, 2021 AND 2020

1. SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

The total pension liability presented in the schedule were provided by the System's actuarial consultant, Sherman Actuarial Services, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System. The related ratios show Plan net position as a percentage of the total pension liability and the net pension liability as a percentage of covered employee payroll.

2. SCHEDULE OF INVESTMENT RETURN

The annual money-weighted rate of return is calculated as the internal rate of return on Plan investments, net of Plan investment expense. A money-weighted rate of return expresses investment performance, net of Plan investment expense, adjusted for changing amounts actually invested.

3. SCHEDULE OF CONTRIBUTIONS

The actuarially determined contribution amount in the schedule of contributions was calculated as of January 1, 2022 for 2021; January 1, 2020 (for 2020 and 2019); January 1, 2018 (for 2018 and 2017); January 1, 2016 (for 2016 and 2015) and as of January 1, 2015 for 2014. The following actuarial methods and assumptions were used to determine the contribution amount reported in that schedule:

A (' 1 O (
Actuarial Cost Method	Individual entry age norma	al activarial cost mathod
Actualial Cost Mctilou	III WIN WALL CITTING AGE HOTTING	ai actuariai cost ilictilou

Amortization Method Open – Level percent of payroll

Payroll assumed to grow 3.5%-5.5% per year

(January 1, 2022, 2020, 2018 and 2016) and 4% per year

(January 1, 2015)

Asset Valuation Method Market value as reported to PERAC

Inflation 3.0% (January 1, 2022 and 2020)

4.0% (January 1, 2018 and 2016)

4.5% (January 1, 2015)

Investment Rate of Return 7.75% (January 1, 2022, 2020 and 2018)

8.0% (January 1, 2016) 8.25% (January 1, 2015)

Cost of Living Adjustments 3.0% of first \$18,000 (January 1, 2022 and 2020) and

3% of first \$17,000 (January 1, 2018) and 3% of first \$15,000 (January 1, 2016 and 2015) of

retirement income

Mortality Table RP-2014 Blue Collar Mortality Table with Scale with

MP-2014 (January 1, 2022, 2020, 2018 and 2016) RP-2000 Mortality Table adjusted with Scale AA

(January 1, 2015)

500 Victory Road, Marina Bay, Quincy, MA 02171



Telephone: 617-786-7775 | Fax: 617-786-9919

Dorothy F. Di Pesa, CPA John F. Oteri, CPA

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

To the Board of the Norfolk County Retirement System Canton, Massachusetts

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Norfolk County Retirement System, as of and for the years ended December 31, 2021 and 2020, and the related notes to the financial statements, which collectively comprise the Norfolk County Retirement System's basic financial statements, and have issued our report thereon dated October 19, 2022.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Norfolk County Retirement System's internal control over financial reporting (internal control) as a basis for designing 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 our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Norfolk County Retirement System's internal control.

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

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

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether Norfolk County Retirement System's financial statements are free from 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 financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

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

DI PESA & COMPANY

Di Pesa & Company

Certified Public Accountants Quincy, Massachusetts

October 19, 2022