

**CONCORD, MASSACHUSETTS
CONTRIBUTORY RETIREMENT SYSTEM**

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

For the Year Ended December 31, 2015

MELANSON HEATH
ACCOUNTANTS • AUDITORS



TABLE OF CONTENTS

	<u>PAGE</u>
Independent Auditors' Report	1
Schedule of Employer Allocations	3
Schedule of Pension Amounts by Employer	4
Notes to Schedules	5



Independent Auditors' Report

To the Honorable Concord Contributory Retirement Board
Town of Concord, Massachusetts

Additional Offices:
Nashua, NH
Manchester, NH
Greenfield, MA
Ellsworth, ME

Report on Schedules

We have audited the accompanying schedule of employer allocations of the Concord Contributory Retirement System (the System) as of and for the year ended December 31, 2015. 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, and total pension expense (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2015.

Management's Responsibility for the Schedules

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

Auditors' Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

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

included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities for the Concord Contributory Retirement System as of and for the year ended December 31, 2015, in accordance with accounting principles generally accepted in the United States of America.

Restriction on Use

Our report is intended solely for the information and use of the System's management, the Retirement Board, System employers and their auditors as of and for the year ended December 31, 2015 and is not intended to be and should not be used by anyone other than these specified parties.

Melanson Heath

December 8, 2016

**CONCORD CONTRIBUTORY RETIREMENT SYSTEM
TOWN OF CONCORD, MASSACHUSETTS**

SCHEDULE OF EMPLOYER ALLOCATIONS

<u>Employer</u>	FY 2016 Actual Employer <u>Contributions</u>	Employer Allocation <u>Percentage</u>
Town of Concord	\$ 3,901,380	86.19%
Concord-Carlisle Regional School District	580,748	12.83%
Concord Housing Authority	<u>44,360</u>	<u>0.98%</u>
Subtotal excluding ERI	4,526,488	<u>100.00%</u>
Concord Housing Authority - ERI	<u>11,311</u>	
Total	<u>\$ 4,537,799</u>	

See actuarial assumptions in the Notes to Schedules

**CONCORD CONTRIBUTORY RETIREMENT SYSTEM
TOWN OF CONCORD, MASSACHUSETTS**

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

As of and for the year ended December 31, 2015

Entity	Deferred Outflows of Resources				Deferred Inflows of Resources				Pension Expense		
	Net Pension Liability	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Pension Expense	Change in Proportionate Share of Pension Expense	Total Employer Pension Expense
Town of Concord	\$ 27,522,599	\$ 1,071,573	\$ 5,472,469	\$ 3,304,464	\$ 59,518	\$ 9,908,024	\$ -	\$ -	\$ 4,832,345	\$ 12,389	\$ 4,844,744
Concord-Carlisle Regional School District	4,096,936	159,511	814,615	491,893	-	1,466,019	59,518	59,518	719,329	(12,389)	706,930
Concord Housing Authority	312,938	12,184	62,224	37,573	-	111,981	-	-	54,945	-	54,945
Total for All Entities	\$ 31,932,473	\$ 1,243,268	\$ 6,349,308	\$ 3,833,930	\$ 59,518	\$ 11,486,024	\$ 59,518	\$ 59,518	\$ 5,606,619	\$ -	\$ 5,606,619

See actuarial assumptions in the Notes to Schedules

NOTES TO SCHEDULES

1. Description of the Entity

A. Plan Description

The Concord Contributory Retirement System (the System) is a member of the Massachusetts Contributory Retirement Systems and is governed by Chapter 32 of the Massachusetts General Laws. Because of the significance of its operational and financial relationship with the Town of Concord, Massachusetts (the Town), the System is included as a pension trust fund in the Town's basic financial statements.

Substantially all employees of the Town (except teachers), Concord Housing Authority, and Concord-Carlisle Regional School District (except teachers) are members of the System, a cost sharing, multiple employer public employee retirement system (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages and benefits paid.

The System is governed by a five-member board. The five members include two appointed by the Town, two elected by the members and retirees, and a fifth member chosen by the other four members with the approval of the Public Employee Retirement Administration Commission. The System Retirement Board does not have the authority to amend benefit provisions.

Membership of each plan consisted of the following at January 1, 2015 (the latest actuarial valuation):

Retirees and beneficiaries receiving benefits	274
Terminated plan members entitled to but not yet receiving benefits	120
Active plan members	<u>513</u>
Total	<u>907</u>
Number of participating employers	3

Participant Retirement Benefits

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3 year average annual rate of regular com-

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

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

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

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

Participant Refunds

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

Participants Contributions

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

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

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

Employer Contributions

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

B. Summary of Significant Accounting Policies

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the System and additions to/deductions from the System's fiduciary net position have been determined on the same basis as they are reported by the System. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

2. Actuarial Assumptions

Actuarial valuation of the ongoing System involves estimates of the reported amounts and assumptions about probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The actuarial assumptions used in the December 31, 2015 measurement date were based on the results of the most recent actuarial experience study, dated January 1, 2015, which was for the period January 1, 2014 through December 31, 2014.

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

Valuation Date	January 1, 2015 rolled forward to December 31, 2015
Actuarial cost method	Entry Age Normal Cost Method
Actuarial assumptions:	
Investment rate of return	7.25%
Projected salary increases	
Group 1 and 2	3.00% for 10 years
Fire	4.70% for 3 years
Police	5.20% in year 1, 5.60% in year 2, 7.30% in year 3, 5.99% in year 4, and 4.80% in year 5
Inflation rate	3.00%
Post-retirement cost-of-living adjustment	3% of first \$12,000
Mortality	Generational Mortality, Scale BB (sex-distinct). During employment the healthy employee mortality table is used. Post-employment the healthy annuitant table is used. In-service death is assumed to be 55% accidental for group 1 and 2 and 90% accidental for group 4.
Disabled life mortality	Generational Mortality, Scale BB for health annuitants, set forward by 2 years (sex-distinct). Death is assumed to be due to the same cause as the disability 40% of the time.

3. Net Pension Liability

The net pension liability was based on an actuarial valuation dated January 1, 2015 and rolled forward to December 31, 2015. The components of the net pension liability of the System at December 31, 2015 were as follows:

Total pension liability	\$ 165,699,237
Plan fiduciary net position	<u>(133,766,764)</u>
Employers' net pension liability	<u>\$ 31,932,473</u>
Plan fiduciary net position as a percentage of total pension liability	80.7%
Covered payroll	\$ 29,283,408
Plan net pension liability as a percentage of covered payroll	109.0%

A. Target Allocations

The long-term expected rate of return on pension plan investments was selected from a best estimate range determined using the building block approach. Under this method, an expected future real return range (expected returns, net of pension plan investment expense and inflation) is

calculated separately for each asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return net of investment expenses 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 class are summarized in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-term Expected Real Rate of Return</u>
Cash	1.0%	-2.9%
Global Equity	49.8%	4.9%
Core Fixed Income	25.6%	0.7%
Value-Added Fixed Income	3.6%	3.7%
Private equity	3.6%	6.3%
Real Estate	8.8%	3.4%
Timberland	1.5%	4.0%
Hedge Funds	4.6%	3.4%
Portfolio Completion	1.5%	3.1%
Total	<u>100.0%</u>	

B. Discount Rate

The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed that the plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments to current active and inactive 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.

C. Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the System's net pension liability calculated using the discount rate of 7.25%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower (6.25%) or 1 percentage-point higher (8.25%) than the current rate:

<u>Year Ended</u>	<u>1% Decrease (6.25%)</u>	<u>Current Discount Rate (7.25%)</u>	<u>1% Increase (8.25%)</u>
12/31/2015	\$ 51,155,837	\$ 31,932,473	\$ 16,149,072

4. Deferred Outflows/Inflows of Resources

The following schedule reflects the deferred outflows/inflows of resources for the System for the year ended December 31, 2015:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 1,243,268	\$ -
Net difference between projected and actual earnings on pension plan investments	6,349,308	-
Changes of assumptions	3,833,930	-
Changes in proportion and differences between contributions and proportionate share of contributions	<u>59,518</u>	<u>(59,518)</u>
Total	<u>\$ 11,486,024</u>	<u>\$ (59,518)</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the collective pension expense as follows:

	<u>Measurement Year</u>	<u>Amortization Period</u>	<u>Beginning Balance on Prior Measurement Period Deferrals</u>	<u>Current Measurement Period Additions</u>	<u>Amortization of Amounts Recognized in Current Period Pension Expense</u>	<u>End of Year Balance</u>
<u>Deferred Outflows of Resources:</u>						
Difference between expected and actual experience	2015	5.8	\$ -	\$ 1,502,282	\$ (259,014)	\$ 1,243,268
Net differences between projected and actual earnings on pension plan investments	2014	5	(1,362,190)	-	340,547	(1,021,643)
	2015	5	-	9,213,689	(1,842,738)	7,370,951
Change of assumptions	2015	5.8	-	4,632,665	(798,735)	3,833,930
Changes in proportion and differences between employer contributions and proportionate share of contributions	2015	5.8	-	71,917	(12,399)	59,518
Total Deferred Outflows of Resources			(1,362,190)	15,420,553	(2,572,339)	11,486,024
<u>Deferred (Inflows) of Resources:</u>						
Changes in proportion and differences between employer contributions and proportionate share of contributions	2015	5.8	-	(71,917)	12,399	(59,518)
Total Deferred (Inflows) of Resources			-	(71,917)	12,399	(59,518)
Total Collective Deferred (Inflows) Outflows of Resources			<u>\$ (1,362,190)</u>	<u>\$ 15,348,636</u>	<u>\$ (2,559,940)</u>	<u>\$ 11,426,506</u>

The following schedule reflects the amortization of the balance of deferred outflows/inflows of resources, excluding employer-specific amounts, for the deferred outflows and inflows:

	<u>Deferred Outflows</u>	<u>Deferred Inflows</u>
Year ended June 30:		
2017	\$ 2,572,339	\$ (12,399)
2018	2,572,339	(12,399)
2019	2,572,339	(12,339)
2020	2,912,887	(12,339)
Thereafter	<u>856,120</u>	<u>(10,042)</u>
Total	<u>\$ 11,486,024</u>	<u>\$ (59,518)</u>

5. Rate of Return

For the year ended December 31, 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 0.26%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

6. Additional Financial and Actuarial Information

Information contained in these Notes to Schedules was extracted from the audited financial statements of the Town of Concord, Massachusetts for the year ended June 30, 2016. Additional financial information supporting the preparation of the Schedules is located in the audited financial statements of the Town, which can be obtained by contacting the Town's Finance Department at 22 Monument Square, Concord, Massachusetts 01742.