



CUSTODIANS AND MECHANICS PENSION TRUST FUND OF THE
CITY OF STAMFORD

CITY OF STAMFORD

INTERIM ACTUARIAL VALUATION REPORT

JULY 1, 2015





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I. Introduction

A. Purpose of the Valuation

Liabilities were valued as of July 1, 2014 using data and cost information as of July 1, 2014. The July 1, 2014 liabilities were then projected to July 1, 2015.

The purpose of the valuation is to report the estimated funded status of the plan as of July 1, 2015 as well as an actuarially determined contribution for the fiscal year ending June 30, 2017.

It is important to note that the ultimate cost of a pension plan is based primarily on the level of benefits promised by the plan. The pension fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

$$\text{City's Ultimate Cost} = \text{Benefits Paid} + \text{Expenses Incurred} - \text{Employee Contributions} - \text{Investment Return}$$

Assets reported are actual (including accruals) through June 30, 2015 and reflect the asset smoothing method. Liabilities have been projected from the last full valuation done as of July 1, 2014.

We have assumed that no changes have been made to the plans since the July 1, 2014 actuarial valuation.

B. Comments

The market value return was approximately 0% this year. Because we are still smoothing in past asset losses, the actuarial smoothed return was 6.73% this year. The contribution increased by \$305,000 this year. \$60,000 of this was due to loading administrative expenses, \$152,000 was due to lowering the interest rate assumption from 7.625% to 7.5%, and asset returns less than the 7.625% expected increased the contribution by \$55,000. The remainder of the increase was primarily due to normal benefit accrual.



I. Introduction continued

C. Certification

This report presents the results of the July 1, 2015 Actuarial Valuation for Custodian and Mechanics Pension Trust Fund of the City of Stamford (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2017. This report is intended to satisfy the requirements of Connecticut General Statute 7-450a. This report may not be appropriate for any other purpose.

The valuation has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with all applicable Actuarial Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this valuation, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this valuation report are based on the Plan as summarized in the *Plan Provisions* section of this report and the actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.



Evan W. Woollacott, Jr., FCA, MAAA, EA
14-04513

May 4, 2016



II. Results of the Valuation

A. Assets

1. Beginning value, 7/01/2014	
a. Trust assets	\$56,990,325
b. Accrued contributions - Employee	\$0
c. Benefits payable	\$0
d. Administrative expenses payable	\$0
e. Net: (a) + (b) – (c) – (d)	\$56,990,325
2. Contributions	
a. Contributions during year - Employer	\$1,669,000
b. Contributions during year - Employee	\$1,146,675
c. Total for Plan Year	\$2,815,675
3. Disbursements	
a. Benefit payments during year	\$2,802,115
b. Administrative expenses during year	\$47,045
c. Change in benefits payable	\$0
d. Change in administrative expenses payable	\$0
e. Total for plan year	\$2,849,160
4. Net Investment Return	
a. Interest and dividends	\$1,373,010
b. Other Income	\$0
c. Realized/unrealized gain (loss)	(\$1,302,196)
d. Investment – related expenses	(\$65,796)
e. Total	\$5,018
5. Ending Value, 6/30/2015	
a. Trust assets: (1e) + (2c) - (3e) + (4e)	\$56,961,858
b. Accrued contribution – Employer	\$0
c. Accrued contribution – Employee	\$0
d. Benefit payable	\$0
e. Administrative expenses payable	\$0
f. Net: (a) + (b) + (c) – (d) – (e) or (1) + (2) – (3) + (4)	\$56,961,858
6. Approximate rate of return 2014-2015	0.01%



II. Results of the Valuation continued

1.	Actuarial Asset Value at July 1, 2014	\$55,266,448
2.	Expected Return	4,276,588
3.	Contributions	2,815,675
4.	Disbursements	2,849,160
5.	Expected Actuarial Asset Value at June 30, 2015 (1) + (2) + (3) – (4)	59,509,551
6.	Market Value of Assets	56,961,858
7.	Appreciation (Depreciation) Capitalized .20 x [(6) – (5)]	-509,539
8.	Preliminary Actuarial Asset Value at June 30, 2015 (5) + (7)	59,000,012
9.	70% of Market Value .7 x (6)	39,873,301
10.	130% of Market Value 1.3 x (6)	74,050,415
11.	Actuarial Asset Value at June 30, 2015, not less than (9); and not greater than (10)	59,000,012
12.	Round to nearest thousand	59,000,000
13.	Actuarial Asset Return	6.73%



II. Results of the Valuation (continued)

B. Development of Unfunded Accrued Liability and Funded Ratio

	July 1, 2015 Interim Valuation	July 1, 2014 Valuation	July 1, 2013 Interim Valuation
1. Projected Accrued Liability	\$67,608,000	\$62,320,000	\$58,120,000
2. Assets (Actuarial Value)	\$59,000,000	\$55,266,000	\$51,123,000
3. Unfunded Accrued Liability: (1) - (2)	\$8,608,000	\$7,054,000	\$6,997,000
4. Funded Ratio: (2) / (1)	87.3%	88.7%	88.0%



II. Results of the Valuation (continued)

C. Actuarially Determined Contribution

	July 1, 2015 for Fiscal Year Ending June 30, 2017	July 1, 2014 for Fiscal Year Ending June 30, 2016	July 1, 2013 for Fiscal Year Ending June 30, 2015
1. Ongoing Annual Cost	\$2,469,000	\$2,345,000	\$2,132,000
2. Expected Administrative Expenses	60,000	0	0
3. Estimated Actuarial Employee Contributions	1,291,000	1,253,000	1,210,000
4. City's Ongoing Annual Cost: (1) + (2) - (3)	1,238,000	1,092,000	922,000
5. Amortization of Unfunded Accrued Liability (15 years)	907,000	748,000	747,000
6. City's Annual Contribution: [(4) + (5)]	2,145,000	1,840,000	1,669,000



II. Results of the Valuation (continued)

D. Target Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
Domestic Fixed Income	15.00%	2.00%	0.30%
Domestic Equity	30.00%	5.25%	1.58%
International Equity	20.00%	5.50%	1.10%
Asset Allocation	35.00%	3.84%	1.34%
	100.00%		4.32%
Long-Term Inflation Expectation			3.00%
Long-Term Expected Nominal Return			7.32%

**Long-Term Returns are provided by HHIA and FIA. The returns are geometric means.*

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 are developed. Best estimates of the real rates of return for each major asset class are included in the pension plan's target asset allocation.

The information above is based on geometric means and does not reflect additional returns through investment selection, asset allocation and rebalancing. The results support a rate between 7.25% and 7.75%. An expected rate of return of 7.5% was used.



III. Actuarial Cost Methods and Assumptions

A. Actuarial Cost Methods

Funding Method

The actuarial method used to develop the Actuarially Determined Contribution is the Projected Unit Credit Cost Method.

The Ongoing Annual Cost equals the total present value for all participants of the benefit accruing during the coming year, increased to reflect salaries projected to the assumed retirement date.

The Accrued Liability equals the present value of all benefits accrued to date, increased to reflect salaries for all active participants. The total Accrued Liability is reduced by plan assets to develop the Unfunded Accrued Liability.

The cost of amortizing the Unfunded Accrued Liability constitutes a portion of the Actuarially Determined Contribution.

The total Actuarially Determined Contribution equals the Ongoing Annual Cost, further increased by any positive amortization of the Unfunded Accrued Liability. The amortization period is 15 years.

Asset Valuation Method

The Actuarial Value of Assets used in the development of the Annual Recommended Contribution is designed to smooth out fluctuations in the market value. An Expected Actuarial Value of Assets is determined based on the prior year's Actuarial Value of Assets and the assumed interest rate equal to the valuation interest rate. The Actuarial Value of Assets is equal to the Expected Actuarial Asset Value plus 20% of the difference between the Market Value and the Expected Value. The Actuarial Value of Assets is limited to a minimum of 70% or a maximum of 130% of the Market Value.



III. Actuarial Cost Methods and Assumptions

B. Actuarial Assumptions

Inflation

3.0%.

This assumption is based on long term (1926-2013) historical inflation numbers. While near term averages have been lower, we do not believe this trend will continue indefinitely and expect that there will be a reversion to the long term average.

Mortality

RP-2000 Mortality Table with separate male and female rates, with blue collar adjustment, combined table for non-annuitants and annuitants, projected to the valuation date with Scale AA.

Mortality Improvement

Projected to date of decrement using Scale AA (generational mortality).

We have selected a mortality table commonly used by public pension systems (such as the State of Connecticut). The plan does not have sufficiently credible data on which to perform a mortality experience study.

Investment Return

7.5% per year (net of investment expenses).

Prior: 7.625% per year (net of investment expenses).

Salary Scale

Based on age. Sample rates shown below.

Age	Rate
20	6.50%
25	6.50%
30	5.85%
35	5.20%
40	4.55%
45	3.90%
50	3.25%
55+	3.00%

The assumption is based on input from the plan sponsor regarding future expectations, as well as knowledge that younger employees generally earn higher annual percentage increases than older employees.



III. Actuarial Cost Methods and Assumptions (continued)

Retirement

Assumed annual rates of retirement after the completion of 10 years of service are as follows:

Age	Retirement Rate
60	20%
61	5%
62-69	20%
70	100%

An additional 50% probability of retirement is added upon completion of 25 years of service.

Turnover

The following annual rates of turnover are assumed:

Age	Probability
20	5.44%
25	4.89%
30	3.70%
35	2.35%
40	1.13%
45	0.00%
50	0.00%
55	0.00%
60	0.00%

Disability

The following annual rates of disability are assumed:

Age	Probability
20	.05%
25	.05%
30	.05%
35	.06%
40	.09%
45	.18%
50	.40%
55	.85%
60	.00%

The actuarial assumptions in regards to rates of decrement shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Deaths

For purposes of valuing the plan's pre-retirement death benefit, we assume all deaths are non-service related.



III. Actuarial Cost Methods and Assumptions (continued)

Payroll Growth

3%, only used to project normal cost to the next year.

Survivorship

70% of employees assumed to be married, with wives 4 years younger than husbands.

Expenses

The normal cost includes a load for expected administrative expenses. Expenses are estimated based on actual amounts for the two prior years.

Sick Bank

50% of retirees are assumed to elect an annuity from the fund and 50% of retirees are assumed to elect a lump sum paid from the operating budget.

Medicare Part B Reimbursement

3% increase assumption each year.



IV. Summary of Current Principal Pension Plan Provisions

Pension Earnings

Salary in Final Year of Employment.

Normal Retirement

Eligibility: The earlier of 1) age 60 with 10 years of service, or 2) 25 years of service.

Benefit: Educational Assistants and Security Workers: 1.5% of pension earnings per year of service to a maximum of 33 years.

Custodians: 2.25% of pension earnings times year of service to a maximum of 33 years.

Limits on Annual Benefit

Maximum: None.

Minimum: None.

Disability – Non-Service Connected

Service Requirement: 10 years of service.

Benefit: 50% of pension earnings if less than 25 years of service. Accrued retirement benefit if more than 25 years of service.

Disability – Service Connected:

Service Requirement: None.

Benefit: 50% of pension earnings.

Pre-Retirement Death Benefit – Non Service Connected

Service Requirement: None.

Benefit: Return of contributions if less than 10 years of service. 50% of pension earnings with 10 years of service.

Pre-Retirement Death Benefit – Service Connected

Service Requirement: None.

Benefit: 50% of pension earnings.

Post-Retirement Spouse's Benefit

100% of pension retiree was receiving.

Post-Retirement Death Benefit

Lump sum, excess of accumulated contributions over benefits paid to member or survivors (if not eligible for spouse's benefit).



IV. Summary of Current Principal Pension Plan Provisions (continued)

Vesting in Accrued Benefit

Eligibility: 10 years of service.

Benefit: Accrued retirement benefit.

Termination Benefit

Accumulated contributions as lump sum, if not vested.

Employee Contributions

5% of salary; no contributions for those with 33 or more years of service (7% for Custodians with a 33 year maximum).

Additional Retirement Benefits

Employees can trade in up to 125 days of sick leave for additional pension credit. Each 25 days grants an additional 1.5% of salary up to a maximum of 7.5%.

Educational Assistants and Security Workers are not eligible for this additional retirement benefit.

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