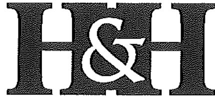

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Custodians and Mechanics Pension Trust Fund of the City of Stamford

Actuarial Valuation

July 1, 2012

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May 9, 2013

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I. Introduction

A. Purpose of the Valuation

Liabilities were valued as of July 1, 2012 using data provided by the City.

The purpose of the valuation is to report the funded status of the plan as of July 1, 2012 as well as an annual required contribution for the fiscal year ending June 30, 2014.

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,

City's Ultimate Cost	=	*Benefits Paid*	+	*Expenses Incurred*	–	*Employee Contributions*	–	*Investment Return*

Assets reported are actual (including accruals) through June 30, 2012 and reflect an asset smoothing method.

B. Changes This Year

Plan Funding Changes

We have changed the plan funding to include the cost of paying the Medicare Part B supplemental benefit from the pension fund. This change increased the City's cost by $463,000.

Assumption Changes

Beginning with this valuation, we have updated the salary scale, investment return, payroll growth, and mortality assumptions. These changes decreased the City's Annual Required Contribution by $46,000. Lastly, we updated the plan's normal cost to include a 3% payroll growth assumption since we are projecting for fiscal 2014. These changes increased the City's ARC by $26,000.

I. Introduction
continued

C. Certification

This report presents the results of the July 1, 2012 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 Annual Required Contribution (ARC) for the fiscal year ending June 30, 2014. 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.

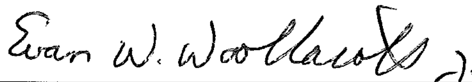
I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

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
11-04513

May 9, 2013

II. Results of the Valuation

A. Assets

Development of Market Value

1. Beginning value, 7/01/2011	
a. Trust assets	$43,448,931
b. Accrued contributions - Employee	0
c. Benefits payable	0
d. Administrative expenses payable	0
e. Net: (a) + (b) – (c) – (d)	43,448,931
2. Contributions	
a. Contributions during year - Employer	1,380,000
b. Contributions during year - Employee	985,471
c. Total for Plan Year	2,365,471
3. Disbursements	
a. Benefit payments during year	2,605,093
b. Administrative expenses during year	0
c. Change in benefits payable	0
d. Change in administrative expenses payable	0
e. Total for plan year	2,605,093
4. Net Investment Return	
a. Interest and dividends	1,070,283
b. Other Income	0
c. Realized/unrealized gain (loss)	(792,028)
d. Investment – related expenses	(61,489)
e. Total	216,766
5. Ending Value, 6/30/2012	
a. Trust assets: (1e) + (2c) - (3e) + (4e)	43,426,075
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)	43,426,075
6. Approximate rate of return 2011-2012	0.5%

Development of the Actuarial Asset Value

1. Actuarial Asset Value at June 30, 2011	$45,767,326
2. Expected Return	3,708,248
3. Contributions	2,365,471
4. Disbursements (includes Inv. Management Fees)	2,605,093
5. Expected Actuarial Asset Value at June 30, 2012 (1) + (2) + (3) – (4)	49,235,952
6. Market Value of Assets	43,426,075
7. Appreciation (Depreciation) Capitalized .20 x [(6) – (5)]	(1,161,975)
8. Preliminary Actuarial Asset Value at June 30, 2012 (5) + (7)	48,073,977
9. 70% of Market Value .7 x (6)	30,398,253
10. 130% of Market Value 1.3 x (6)	56,453,898
11. Actuarial Asset Value at June 30, 2010, not less than (9); and not greater than (10)	48,073,977
12. Round to nearest thousand	48,074,000
13. Actuarial Asset Return	5.5%

II. Results of the Valuation
continued

Return Assumption

	Target Portfolio Percent*	Expected Return	Weighted Return
US Stocks			
SSgA Russell 1000	34.00%	8.50%	2.89%
International Equity			
Templeton Institutional Foreign	14.00%	10.00%	1.40%
Domestic Fixed Income			
Metropolitan West Total Return	12.00%	6.00%	0.72%
Vanguard Total Bond Market Index Signal	9.00%	6.00%	0.54%
Total Asset Allocation			
GMO Global Balanced Asset Allocation III	20.00%	8.00%	1.60%
Pimco All Asset Institutional	11.00%	7.40%	0.81%
Totals	100.00%		7.96%

** Percentages provided for the July 1, 2010 valuation have not been updated.*

The 7.96% long term expected return is based upon the most recent Capital Market Assumptions published by Hooker & Holcombe Investment Advisors.

B. Development of Unfunded Accrued Liability and Funded Ratio

	July 1, 2012 Valuation	July 1, 2011 Interim Valuation
1. Total Accrued Liability	$54,525,000	$51,286,000
2. Assets (Actuarial Value)	$48,074,000	$45,767,000
3. Unfunded Accrued Liability: (1) - (2)	$6,451,000	$5,519,000
4. Funded Ratio: (2) ÷ (1)	88.2%	89.2%

II. Results of the Valuation
(continued)

C. Annual Recommended Contribution

	July 1, 2012 for Fiscal Year Ending June 30, 2014	July 1, 2011 for Fiscal Year Ending June 30, 2013
1. Ongoing Annual Cost	$2,070,000	$2,041,000
2. Estimated Actuarial Employee Contributions	1,175,000	1,141,000
3. City's Ongoing Annual Cost: (1) - (2)	895,000	900,000
4. Amortization of Unfunded Accrued Liability (15 years)	689,000	597,000
5. City's Annual Contribution: [(3) + (4)]	1,584,000	1,497,000

II. Results of the Valuation
(continued)

D. Determination of Actuarial Gain (Loss)

The Actuarial Gain (Loss) for a year is the difference between the Expected Unfunded Actuarial Accrued Liability and the Actual Unfunded Actuarial Accrued Liability, without regard to any plan changes or changes in methods or actuarial assumptions. Such a gain (loss) is also referred to as an Experience Gain (Loss), since it reflects the difference between what was expected and what was actually experienced.

Actuarial Gain (Loss)	
1. Expected unfunded actuarial accrued liability 7/1/2012	
a. Unfunded actuarial accrued liability 7/1/2011	$ 5,519,000
b. City normal cost 7/1/2011	900,000
c. Interest at 8% to 7/1/2012 on (a) and (b)	514,000
d. City Contributions for 2011/2012	1,380,000
e. Interest for full year on (d)	110,000
f. Expected unfunded actuarial accrued liability 7/1/2012: (a)+(b)+(c)–(d)-(e)	5,443,000
2. Actual unfunded actuarial accrued liability 7/1/2012 for gain (loss) determination	
a. Unfunded actuarial accrued liability 7/1/2012	6,451,000
b. Adjustments 7/1/2012	
i. Part B change	4,273,000
ii. Change in assumptions	(893,000)
iii. Asset method change	0
iv. Total	3,380,000
c. Actual unfunded actuarial accrued liability for gain (loss) determination: (a)–(b)	3,071,000
3. Actuarial gain (loss): (1f)–(2c)	2,372,000
4. Sources of gain (loss)	
a. Gain (Loss) due to salaries	$ 1,258,000
b. Gain (Loss) due to return on assets	(1,162,000)
c. Gain (Loss) due to retirement, turnover and mortality and data corrections	2,276,000
d. Total Gain (Loss): (a)+(b)+(c)	$ 2,372,000

E. New Accounting Standards

In June of 2012, The Government Accounting Standards Board (GASB) issued statements 67 and 68. GASB 67 is a new standard that pertains to financial reporting for pension plans. In general, it replaces GASB 25 and it is effective for fiscal years beginning after June 15, 2013. GASB 68 is a new standard that pertains to accounting and financial reporting for pensions. In general, it replaces GASB 27 and it is effective for fiscal years beginning after June 15, 2014. Both statements replace the relevant provisions of GASB 50.

Currently, your annual financial report tracks the Net Pension Obligation (NPO) and the NPO is displayed in the footnote section of the annual financial report. With GASB 68, the NPO will no longer be tracked. A new item called Net Pension Liability (NPL) will be displayed not as a footnote but directly on your balance sheet. For both standards, liabilities are calculated using the Entry Age Normal Cost Method. In general, the NPL is EAN Accrued Liability less the Market Value of Assets. A table that displays the NPL for the Police Pension Trust Fund of the City of Stanford is below.

Valuation Date	Entry Age Normal Accrued Liability	Market Value Of Assets	Net Pension Liability
July 1, 2010	49,133,000	36,378,000	12,755,000
July 1, 2012	55,261,000	43,426,000	11,835,000

In addition to replacing the NPO with NPL, the Annual Required Contribution (ARC) will also be eliminated. Even though the ARC will be eliminated, we will work with you to develop a contribution policy. The new term for this is called the Actuarially Determined Contribution (ADC). One possible ADC is to use the same concepts that were used to develop the ARC which would mean no change in the present funding policy.

Under the prior standards the ARC served as both the contribution policy and the accounting expense. As noted above the ARC is eliminated and replaced with the ADC with regard to the funding policy. The new pension expense will be quite different from the ARC and it has several components (including normal cost, interest cost, amortization components, actual return, and plan changes). The new pension expense will help reconcile the change in the Net Pension Liability each year. In addition, it will be more volatile than the ARC and so not suitable for use as a contribution policy.

If the (Town/City) wants to see how the pension expense works, please let us know and we will prepare a sample exhibit. Like the Net Pension Liability, the calculation of the pension expense is based upon the Entry Age Normal Cost Method and will no longer be a footnote but reported directly in the annual financial report.

II. Results of the Valuation
(continued)

F. Participant Data

The data reported by the City for this valuation includes all active employees who met the Plan's minimum age and service requirements as of 7/1/2012.

Participant Data				
	Active	Terminated Vested	Retired	Total
Total Participants 7/1/2010	514	4	133	651
Adjustments	0	0	+3	+3
Retirements	-18	0	+18	0
Terminations				
Vested	-8	+8	N/A	0
Non-vested	-26	N/A	N/A	-26
Deaths				
Without death benefit	0	-1	-15	-16
With death benefit	-2	0	-1	-3
New beneficiaries	N/A	0	+3	+3
Lump sum /cash outs	-4	-1	0	-5
Rehires	0	0	0	0
New entrants	+45	N/A	N/A	+45
Total Participants 7/1/2012	501	10	141	652
Average age				
7/1/2010	50.8	66.5	76.6	
7/1/2012	51.2	43.1	67.6	
Average service				
7/1/2010	12.2			
7/1/2012	12.5			
Total annual plan salaries				
7/1/2010	$18,417,850			
7/1/2012	18,619,467			
Total annual benefits				
7/1/2010		$5,725	$2,546,772	
7/1/2012		36,251	2,580,491	

III. Actuarial Cost Methods and Assumptions

A. Actuarial Cost Methods

Funding Method

The actuarial method used to develop the Annual Recommended 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 Annual Recommended Contribution.

The total Annual Recommended 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.

B. Actuarial Assumptions

Mortality: RP-2000 Blue Collar Combined - Generational Mortality Table (was 1983 Group Annuity Mortality Table).

Mortality Improvement: Pre and Post-retirement: Projected to date of decrement using Scale AA. (Prior valuation – none.)

Investment Return: 7.75% per year (net of all expenses). (Prior valuation - 8.00% per year)

Salary Scale: Yearly Rates of Increases

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%

(Prior valuation - Average of 4.5% per year over the long term.)

Retirement Age: 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.

III. Actuarial Cost Methods and Assumptions

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%

Deaths:

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

Payroll Growth:

3%, only used to project normal cost to the next year (for prior valuation, no assumption was used).

Survivorship:

80% of employees assumed to be married, with wives 4 years younger than husbands.

Expenses:

An 8% return net of both administrative expenses and investment expenses is assumed. Therefore, there is no direct expense assumption.

III. Actuarial Cost Methods and Assumptions (continued)

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.

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.

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

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).

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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