



HOOKER & HOLCOMBE, INC.  
Benefit Consultants and Actuaries

65 LaSalle Road  
West Hartford, CT 06107-2397

860-521-8400 tel  
860-521-3742 fax  
[www.hhconsultants.com](http://www.hhconsultants.com)

**Custodians and  
Mechanics Pension  
Trust  
Fund of the City of  
Stamford**

Actuarial Valuation

July 1, 2014

Evan W. Woollacott, Jr.  
Vice President and  
Consulting Actuary

Yelena Pelletier  
Actuary

Jonathan Plumb  
Actuarial Analyst

April 23, 2015

## Table of Contents

	<b>Page</b>
<b>I. Introduction</b>	
A. Purpose of the Valuation	1
B. Changes this year	1
C. Certification	2
<b>II. Results of the Valuation</b>	
A. Assets	3
B. Development of Unfunded Accrued Liability and Funded Ratio	6
C. Actuarially Determined Contribution	7
D. Determination of Actuarial Gain (Loss)	8
E. Participant Data	9
<b>III. Actuarial Cost Methods and Assumptions</b>	
A. Actuarial Cost Methods	10
B. Actuarial Assumptions	11
<b>IV. Summary of Current Principal Pension Plan Provisions</b>	13

## I. Introduction

### A. Purpose of the Valuation

Liabilities were valued as of July 1, 2014 using data provided by the City.

The purpose of the valuation is to report the funded status of the plan as of July 1, 2014 as well as an annual required contribution for the fiscal year ending June 30, 2016.

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,

<i>City's Ultimate Cost</i>	=	<i>Benefits Paid</i>	+	<i>Expenses Incurred</i>	-	<i>Employee Contributions</i>	-	<i>Investment Return</i>
-------------------------------------	---	--------------------------	---	------------------------------	---	-----------------------------------	---	------------------------------

Assets reported are actual (including accruals) through June 30, 2014 and reflect an asset smoothing method.

### B. Changes This Year

#### Plan Changes

We have assumed that no changes have been made to the plan since the July 1, 2013 actuarial valuation.

#### Assumption Changes

Beginning with this valuation, we have updated the investment return and the assumed proportion of the participant population that is married. Since there is an unsettled contract with the custodians, we have also assumed that the salaries for custodians are 6% higher than what was reported for the 2013-2014 plan year. These changes increased the City's Actuarially Determined Contribution by \$275,000.

## I. Introduction

(continued)

### C. Certification

This report presents the results of the July 1, 2014 Actuarial Valuation for the Custodians 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, 2016. 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

April 23, 2015

## II. Results of the Valuation

### A. Assets

#### Development of Market Value

<b>1. Beginning value, 7/01/2013</b>	
a. Trust assets	\$48,748,797
b. Accrued contributions - Employee	0
c. Benefits payable	0
d. Administrative expenses payable	<u>0</u>
e. Net: (a) + (b) - (c) - (d)	48,748,797
<b>2. Contributions</b>	
a. Contributions during year - Employer	1,584,000
b. Contributions during year - Employee	<u>1,097,591</u>
c. Total for Plan Year	2,681,591
<b>3. Disbursements</b>	
a. Benefit payments during year	2,832,023
b. Administrative expenses during year	51,392
c. Change in benefits payable	0
d. Change in administrative expenses payable	<u>0</u>
e. Total for plan year	2,883,415
<b>4. Net Investment Return</b>	
a. Interest and dividends	1,005,326
b. Other Income	0
c. Realized/unrealized gain (loss)	7,047,690
d. Investment - related expenses	<u>(20,633)</u>
e. Total	8,032,383
<b>5. Ending Value, 6/30/2014</b>	
a. Trust assets: (1e) + (2c) - (3e) + (4e)	56,579,356
b. Accrued contribution - Employer	0
c. Accrued contribution - Employee	0
d. Benefit payable	0
e. Administrative expenses payable	<u>0</u>
f. Net: (a) + (b) + (c) - (d) - (e) or (1) + (2) - (3) + (4)	56,579,356
<b>6. Approximate rate of return 2013-2014</b>	16.5%

## II. Results of the Valuation (continued)

### Development of the Actuarial Asset Value

1. Actuarial Asset Value at June 30, 2013	\$51,123,151
2. Expected Return	4,016,894
3. Contributions	2,681,591
4. Disbursements (includes Inv. Management Fees)	2,883,415
5. Expected Actuarial Asset Value at June 30, 2014 (1) + (2) + (3) – (4)	54,938,221
6. Market Value of Assets	56,579,356
7. Appreciation (Depreciation) Capitalized .20 x [(6) – (5)]	328,227
8. Preliminary Actuarial Asset Value at June 30, 2014 (5) + (7)	55,266,448
9. 70% of Market Value .7 x (6)	39,605,549
10. 130% of Market Value 1.3 x (6)	73,553,163
11. Actuarial Asset Value at June 30, 2014, not less than (9); and not greater than (10)	55,266,448
12. Round to nearest thousand	55,266,000
13. Actuarial Asset Return	8.41%

## II. Results of the Valuation

(continued)

### Target Allocation and Expected Rate of Return

June 30, 2014

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return*</u>	<u>Weighting</u>
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 7.625% was used.

## II. Results of the Valuation

(continued)

### B. Development of Unfunded Accrued Liability and Funded Ratio

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

## II. Results of the Valuation

(continued)

### C. Actuarially Determined Contribution

	July 1, 2014 for Fiscal Year Ending 30-Jun-16	July 1, 2013 for Fiscal Year Ending 30-Jun-15
1. Ongoing Annual Cost	\$2,345,000	\$2,132,000
2. Estimated Actuarial Employee Contributions	1,253,000	1,210,000
3. City's Ongoing Annual Cost: (1) - (2)	1,092,000	922,000
4. Amortization of Unfunded Accrued Liability (15 years)	748,000	747,000
5. City's Annual Contribution: [(3) + (4)]	1,840,000	1,669,000

## 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.

<b>Actuarial Gain (Loss)</b>	
<b>1. Expected unfunded actuarial accrued liability 7/1/2014</b>	
a. Unfunded actuarial accrued liability 7/1/2013	\$ 6,997,000
b. City normal cost 7/1/2013	922,000
c. Interest at 7.75% to 7/1/2014 on (a) and (b)	614,000
d. City Contributions for 2013/2014	1,584,000
e. Interest for full year on (d)	<u>123,000</u>
f. Expected unfunded actuarial accrued liability 7/1/2014: (a)+(b)+(c)-(d)-(e)	6,826,000
<b>2. Actual unfunded actuarial accrued liability 7/1/2014 for gain (loss) determination</b>	
a. Unfunded actuarial accrued liability 7/1/2014	7,054,000
b. Adjustments 7/1/2014	
i. Change in assumptions	1,899,000
ii. Asset method change	<u>0</u>
iii. Total	1,899,000
c. Actual unfunded actuarial accrued liability for gain (loss) determination: (a)-(b)	5,155,000
<b>3. Actuarial gain (loss): (1f)-(2c)</b>	1,671,000
<b>4. Sources of gain (loss)</b>	
a. Gain (Loss) due to salaries	\$ 166,000
b. Gain (Loss) due to return on assets	328,000
c. Gain (Loss) due to retirement, turnover and mortality and data corrections	<u>1,177,000</u>
d. Total Gain (Loss): (a)+(b)+(c)	\$ 1,671,000

## II. Results of the Valuation

(continued)

### E. 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 7/1/2014.

<b>Participant Data</b>				
	<b>Active</b>	<b>Terminated Vested</b>	<b>Retired</b>	<b>Total</b>
<b>Total Participants 7/1/2012</b>	501	10	141	652
Adjustments	+1	+1	0	+2
Retirements	-14	-1	+15	0
Terminations				
Vested	-13	+13	N/A	0
Non-vested*	-12	N/A	N/A	-12
Deaths				
Without death benefit	-1	0	-9	-10
With death benefit	0	0	-7	-7
New beneficiaries	N/A	0	+7	+7
Lump sum /cash outs	-5	-3	0	-8
Rehires	0	0	0	0
New entrants	<u>+70</u>	<u>N/A</u>	<u>N/A</u>	<u>+70</u>
<b>Total Participants 7/1/2014</b>	527	20	147	694
<b>Average age</b>				
7/1/2012	51.2	43.1	76.0	
7/1/2014	51.6	59.8	76.5	
<b>Average service</b>				
7/1/2012	12.5			
7/1/2014	12.7			
<b>Total annual plan salaries</b>				
7/1/2012	\$18,619,467			
7/1/2014	19,929,857			
<b>Total annual benefits</b>				
7/1/2012		\$ 36,251	\$2,580,491	
7/1/2014		84,085	2,668,744	

\* These participants are still due a return of their employee contributions.

### **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.

### III. Actuarial Cost Methods and Assumptions

(continued)

#### B. Actuarial Assumptions

Mortality:	RP-2000 Blue Collar Combined - Generational Mortality Table.
Mortality Improvement:	Pre and Post-retirement: Projected to date of decrement using Scale AA.
Investment Return:	7.625% per year (net of all expenses). (Prior valuation – 7.75% per year)
Salary Scale:	Yearly Rates of Increases

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

Salary for the 2013/2014 plan year assumed to be 6% higher than reported for Custodians only due to new contract not having been settled yet.

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

<b>Age</b>	<b>Retirement Rate</b>
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

(continued)

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.

Survivorship: 70% of employees assumed to be married, with wives 4 years younger than husbands. (Prior Valuation – 80% married)

Expenses: A 7.625% return net of both administrative expenses and investment expenses is assumed. Therefore, there is no direct expense assumption.

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

<u>Participation:</u>	Custodians, security workers, and educational assistants begin participating in the plan on the date they are first employed.  Custodians hired after 7/1/2011 are not allowed to participate.
<u>Pension Earnings:</u>	Salary in Final Year of Employment.
<u>Normal Retirement:</u>	
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.
<u>Limits on Annual Benefit:</u>	
Maximum:	None.
Minimum:	None.
<u>Disability – Non-Service Connected:</u>	
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.
<u>Disability – Service Connected:</u>	
Service Requirement:	None.
Benefit:	50% of pension earnings.
<u>Pre-Retirement Death Benefit – Non Service Connected:</u>	
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.

G:\Clients\497 Stamford\2014 pyb 0701 fye 0630\Valuation\Pension CUST\2014 Custodian and Mechanics Valuation Report.docx