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

City of Meriden Fire Employees' Pension Plan

Actuarial Valuation Report

July 1, 2012

Timothy Ryor, FSPA, FCA, MAAA, EA
Senior Vice President and Consulting Actuary

Brian Middendorf
Pension Analyst

Robert P. Lessard
Pension Analyst

April 4, 2013

Table of Contents

Executive Summary		
	2012	**2010**
Number of participants		
Active	61	70
Terminated vested	0	0
Vested in employee contributions only	0	0
Retired, Disabled and Beneficiaries	113	106
Total	174	176
Total annual plan salaries	$4,349,943	$4,800,571
Average plan salary	71,311	68,580
Actuarial accrued liability	79,799,856	74,993,738
Asset value		
Market	46,235,786	43,199,620
Actuarial	53,337,981	51,296,883
Unfunded actuarial accrued liability	26,461,875	23,696,855
Funded Ratio	67%	68%
Normal cost - City	479,425	520,280
Contributions for next two fiscal years		
1st Fiscal Year	2,808,242	2,620,905
2nd Fiscal Year	2,823,649	2,643,414

Introduction

Purpose of the Valuation

The purpose of the valuation is to determine the funded status of the plan as well as the recommended cash contribution for the plan year.

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 service to reduce the cost of plan benefits and expenses. Thus,

City's ultimate cost	=	*benefits paid*	+	*expenses incurred*	-	*investment return*	-	*employee contributions*

The actuarial cost method distributes this ultimate cost over the working lifetime of current plan participants. By means of this budgeting process, costs are allocated to both past and future years, and a cost is assigned to the current year. The current year's allocated cost, or normal cost, is the building block upon which the range of annual cash contributions is developed.

Information Available in the Valuation Report

The Executive Summary and Introduction are intended to emphasize the notable results of the valuation from the perspective of the Plan Sponsor. Supporting technical detail is documented in Valuation Results and Actuarial Basis. A concise summary of the principal provisions of the Plan is outlined in Summary of Plan Provisions.

Contribution for 2014 and 2015 Fiscal Years

The actuarial valuation as of July 1, 2012 produces the contribution for the City's 2014 and 2015 fiscal years. The actuarially calculated contribution payable (after allowing for employee contributions) is as follows:

Fiscal Year Ending	
2014	**2015**
Amount	**Amount**
$2,808,242	$2,823,649

Introduction
(continued)

Asset Performance

The plan's assets provided the following rates of return on plan assets during the past two fiscal years.

	Fiscal Year Ending	
	2011	**2012**
Market Value Basis	20.0%	-3.6%
Actuarial Value Basis	6.5%	4.6%

The Actuarial Value of assets, rather than the Market Value, is used to determine plan contributions. The Actuarial Value spreads the asset volatility over five years, thereby smoothing out fluctuations that are inherent in the Market Value.

The valuation uses a long-term investment return assumption of 8.00% on the Actuarial Value of assets. Because the actual return in 2011 and 2012 was less than this assumption, there was an actuarial loss from assets.

Participant Data

The valuation incorporates assumptions anticipating changes in the demographics of the participant population. Actual experience will produce greater or smaller than expected increases in the actuarial liabilities.

There were some liability losses which combined with the asset losses caused an increase in the contribution.

Plan Changes

The Employee Contributions percentages have been updated.

Assumption and Cost Method Changes

There was an adjustment to the Salary Scale to better reflect plan experience.

Changes since the Last Valuation

There were no additional changes from the last valuation.

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 City's pension plan is below.

Valuation Date	Entry Age Normal Accrued Liability	Market Value Of Assets	Net Pension Liability
July 1, 2008	70,302,239	50,657,660	19,644,579
July 1, 2010	74,993,738	43,199,620	31,794,118
July 1, 2012	79,799,856	46,235,786	33,564,070

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 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.

Certification

This report presents the results of the July 1, 2012 Actuarial Valuation for the City of Meriden Fire Employees' Pension Plan (the Plan) for the purpose of estimating the funded status of the Plan and determining the Annual Required Contribution (ARC) for the fiscal years ending June 30, 2014 and June 30, 2015. 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 Plan Sponsor. 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 *Summary of Plan Provisions* section of this report and the actuarial assumptions and methods detailed in the *Actuarial Basis* 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.

Timothy A. Ryor, FSPA, FCA, MAAA, Enrolled Actuary
11-05126

April 4, 2013

Valuation Results

A. Actuarial Balance Sheet and Funded Ratio

	July 1, 2012	July 1, 2010
Actuarial Liabilities		
Accrued Liability for:		
Active Employees	$24,878,097	$26,342,865
Retirees, Disabled and Beneficiaries	54,921,759	48,650,873
Terminated Vested Employees	0	0
Total	79,799,856	74,993,738
Source of Funds		
Plan Assets	$53,337,981	$51,296,883
Unfunded Accrued Liability	26,461,875	23,696,855
Total	$79,799,856	$74,993,738
Funded Ratio		
Plan Assets divided by Actuarial Accrued Liability	67%	68%

Valuation Results
(continued)

B. 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 July 1, 2012	
a. Expected unfunded actuarial accrued liability July 1, 2011	
i. Unfunded actuarial accrued liability July 1, 2010	$23,696,855
ii. Employer Normal Cost July 1, 2010	520,280
iii. Employer Contributions for 2010/2011	2,441,615
iv. Interest at 8.00% to July 1, 2011 on (i), (ii) and (iii)	1,841,585
v. Expected unfunded actuarial accrued liability July 1, 2011: (i) + (ii) - (iii) + (iv)	23,617,105
b. Expected unfunded actuarial accrued liability July 1, 2011	
i. Unfunded actuarial accrued liability July 1, 2011	23,617,105
ii. Estimated Employer Normal Cost July 1, 2011	520,280
iii. Employer Contributions for 2011/2012	2,620,905
iv. Interest at 8.00% to July 1, 2012 on (i), (ii) and (iii)	1,828,171
v. Expected unfunded actuarial accrued liability July 1, 2012: (i) + (ii) - (iii) + (iv)	23,344,651
2. Actual unfunded actuarial accrued liability July 1, 2012 for gain/(loss) determination	27,388,499
3. Actuarial gain/(loss): (1b)(v) - (2)	(4,043,848)
4. Sources of gain/(loss)	
a. Net gain/(loss) from investments	(2,514,029)
b. Net gain/(loss) from liabilities	(1,529,819)
c. Total net gain/(loss): (a) + (b)	(4,043,848)

Valuation Results
(continued)

C. Valuation Results - July 1, 2012 and Employer Contribution for Fiscal 2014 and 2015

Based on the employee data and asset information furnished us, the actuarial methods and assumptions and the plan provisions, the results of the July 1, 2012 valuation are:

	Fire Plan
1. a. Total normal cost	747,181
b. Employee contributions	267,756
c. Town normal cost	479,425
2. Accrued liability	
a. Active	24,878,097
b. Vested	-
c. Retirees, Beneficiaries, Disabled	54,921,759
d. Total accrued liabilitity	79,799,856
3. Market value of assets	46,235,786
4. Actuarial value of assets	53,337,981
5. Unfunded accrued liability: (2d) - (4)	26,461,875
6. Payment on unfunded accrued liabilty	
a. Interest rate	8.00%
b. Amortization years	30
c. Payment	2,176,426
7. Estimated administrative expenses	30,000
8. Annual town cost, adjusted for timing	2,793,285
9. Payroll	4,349,943
a. Cost as a percentage of payroll	64.21%
10. Budget for Fiscal Year ending June 30, 2014	
a. Normal cost	493,807
b. Amortization	2,176,426
c. Expenses	30,000
d. Total, adjusted for timing	2,808,242
11. Budget for Fiscal Year ending June 30, 2015	
a. Total, adjusted for timing	2,823,649

Valuation Results
(continued)

D. Assets

Development of Asset Market Values

Summary of Fund Activity		
	July 1, 2010 - June 30, 2011	**July 1, 2011 - June 30, 2012**
1. Beginning value	$ 43,199,620	$ 49,816,153
2. Contributions		
a. City contributions during year	2,441,615	2,620,905
b. Employee contributions during year	307,505	298,328
c. Total for plan year	2,749,120	2,919,233
3. Disbursements		
a. Benefit payments during year	4,542,122	4,698,192
b. Administrative expenses during year	26,305	26,954
c. Transfers to OPEB	0	0
d. Other	6,833	1,000
e. Total for plan year	4,575,260	4,726,146
4. Net investment return		
a. Interest and dividends	1,297,738	1,100,960
b. Realized and unrealized gain (loss)	7,409,363	(2,609,122)
c. Investment-related expenses	(264,428)	(265,292)
d. Total	8,442,673	(1,773,454)
5. Ending value	49,816,153	46,235,786
6. Approximate rate of return	20.0%	-3.6%

Valuation Results
(continued)

D. Assets

The Actuarial Value of assets is used in the determination of plan contributions. It phases in differences between the Market Value and the Expected Actuarial Value by recognizing 20% of the difference each year. A method of smoothing is used because the Market Value can swing widely from one year to the next, resulting in undesirable fluctuations in pension contributions.

Determination of the Actuarial Value of Assets	
1. Actuarial value of assets at July 1, 2010	$51,296,883
2. Employer and employee contributions for 2011	2,749,120
3. Disbursements during 2011	(4,568,427)
4. Expected return during 2011	4,030,978
5. Expected actuarial asset value at July 1, 2011	53,508,554
6. Market value July 1, 2011	49,816,153
7. Appreciation (depreciation) recognized 20% x [(6) - (5)]	(738,480)
8. Actuarial asset value at July 1, 2011 (5) + (7)	52,770,074
9. Contributions for 2012	2,919,233
10. Disbursements during 2012	(4,725,146)
11. Expected return during 2012	4,149,369
12. Expected actuarial asset value at July 1, 2012	55,113,530
13. Market value July 1, 2010	46,235,786
14. Appreciation (depreciation) recognized 20% x [(13) - (12)]	(1,775,549)
15. Actuarial asset value at July 1, 2012	53,337,981
16. Actuarial value as a percent of market value	115.4%
2010-2011 Year return on Actuarial Value of Assets	6.5%
2011-2012 Year return on Actuarial Value of Assets	4.6%

Valuation Results
(continued)

E. Membership Data

Employee Participation: July 1, 2010 - July 1, 2012

Participant Data

	Active	Terminated Vested: With Monthly Benefit	Terminated Vested: Contributions Only	Retired, Disabled and Beneficiaries	Total
Total Participants July 1, 2010	70	0	0	106	176
Adjustments	0	0	0	0	0
Retirements - non disabled	-4	0	N/A	+4	0
Disability Retirement	-5	N/A	N/A	+5	0
Terminations					
With vested benefit	0	0	N/A	N/A	0
Vested in contributions only	0	N/A	0	N/A	0
Lump sum settlements	0	0	0	0	0
Deaths					
Without beneficiary	0	0	0	–2	-2
With beneficiary	0	0	0	-3	-3
New beneficiaries	N/A	0	0	+3	+3
Rehires	0	0	0	0	0
New entrants	N/A	N/A	N/A	N/A	N/A
Total Participants July 1, 2012	61	0	0	113	174
Average age					
July 1, 2010	47.3				
July 1, 2012	48.4				
Average service					
July 1, 2010	21.1				
July 1, 2012	22.4				
Total annual plan salaries					
July 1, 2010	$4,800,571				
July 1, 2012	4,349,943				
Total monthly benefits					
July 1, 2010		$0		$366,642	
July 1, 2012		0		415,486	

Actuarial Basis

A. Actuarial Cost Methods

Asset Valuation Method

The Actuarial Value of assets used in the development of plan contributions phases in differences between the Market Value and the Expected Actuarial Value by recognizing 20% of the difference each year.

Actuarial Funding Method

The actuarial valuation method used in the cost calculations is the Entry Age Normal Actuarial Cost Method. Recommended annual contributions until the actuarial accrued liability is completely funded will consist of two pieces:

a. Normal Cost - The actuarial cost to fund benefit units earned during the year.

b. Amortization Payments of Unfunded Actuarial Accrued Liability - The actuarial cost to amortize the unfunded portion of the actuarial liability. The amortization period is 30 years.

Process

The valuation is performed as of the first day of a plan year. The valuation is used to determine the City contributions for the following two fiscal years. To accomplish this objective, we apply the City's Normal Cost Accrual Rate from the valuation year, to the estimated payroll for the target year to determine the Normal Cost for that year. We assume the dollar amount of the amortization payments on the unfunded liability will remain unchanged between the two years.

Actuarial Basis
(continued)

B. Actuarial Assumptions

The actuarial assumptions used in the determination of costs and liabilities are as follows:

Interest:	8% compounded annually, net of investment expenses.
Salary Scale:	It is assumed that salaries will increase by 3% per annum (compounded) plus a 3% annual general wage inflation. Prior Valuation: It is assumed that salaries will increase by 4% per annum (compounded).
Mortality:	Retirement: RP-2000 Mortality Table with separate male and female rates, with blue collar adjustment, separate tables for non-annuitants and annuitants, projected to the valuation date with Scale AA. Disability: RP-2000 Mortality Table with separate male and female rates, with no collar adjustment, combined table for non-annuitants and annuitants.
Mortality Improvement:	Retirement: Projected to date of decrement using Scale AA (generational mortality). Disability: None.
Termination prior to retirement:	Sample rates are as follows:

Age	Disability*	Withdrawal
20	0.06%	0.00%
25	0.09	0.00
30	0.11	0.00
35	0.15	0.00
40	0.22	0.00
45	0.36	0.00
50	0.61	0.00
55	1.01	0.00
60	1.63	0.00

**100% of disabilities with less than 10 years of service are considered service connected.*

Actuarial Basis
(continued)

B. Actuarial Assumptions (continued)

Retirement Rates: Sample rates are as follows:

Years of Service	Retirement
25	10%
26-29	5
30	40
31-34	20
35	100

Percent Married: 75%.

Age of Spouse: Males are assumed to be three years older than their spouses.

Administrative Expense: We have included estimated administrative expenses in the development of the normal cost.

Cost of Living: Retirement date prior to April 1, 2003: 3.75%

Retirement date on or after April 1, 2003: 3.00%

Portion of benefit due to Emoluments: Active liabilities are loaded 7.3% to reflect the portion of future benefits based on 50% of emoluments.

Summary of Plan Provisions

This summary outlines the major features of the Plan. It does not give full details or cover all aspects of the Plan. The actual terms and conditions of the Plan are stated documents with the City.

Effective date	Originally effective June 6, 1913. Amended and restated as of July 1, 2006.
Eligibility for Participation	Regular full-time firefighters hired prior to March 18, 2003, covered under the IAFF, Local 1148 collective bargaining agreement.
Years of Service	Completed whole years of employment during which employee has made required contributions.
Base Rate of Pay	Salary or wages including elective deferrals under 401(k) or Sec. 125, limited by IRC 401(a)(17).
Emoluments	Longevity payments, holiday pay, life insurance and health insurance minus cost share.
Accrued Benefit	2.2% of Base Pay x Years of Service up to 30 Years, plus 50% of current Emoluments.
Normal Retirement	
Age & Service Requirements	Earlier of • 25 Years of Service • Age 65
Benefit	Accrued Benefit
Termination	
Prior to completion of 25 Years of Service	Return of employee contributions plus regular interest.
After completion of 10 Years of Service	Accrued Benefit, payable when Member would have completed 20 Years.

Summary of Plan Provisions
(continued)

Disability	
Eligibility	None if service-related; otherwise completion of 10 Years of Service.
Benefit	50% of Base Pay plus Emoluments.
Death Prior to Retirement	Non-service related: Return of employee contributions plus regular interest. Service-related: Surviving spouse receives 100% of Accrued Benefit as if Officer had 25 Years of Service. Upon attainment of date Officer would have attained 25 Years, spouse's benefit decreases to 50% of the pension amount. Payable until death or remarriage.
Post-retirement Death Benefit	Surviving spouse receives one-half of amount Member was receiving at time of death. Payable until death or remarriage.
Normal Form of Retirement Benefit	Single life annuity.
Employee Contributions	6% of Base Pay plus Emoluments. (In addition, 2% is contributed to the Retiree Health Insurance Fund.) Prior Valuation: 6½% of Base Pay plus Emoluments. (In addition, 1% is contributed to the Retiree Health Insurance Fund.)
COLA	Retirement prior to January 1, 2003: based on increases in Base Pay for the rank held at retirement. Retirement after January 1, 2003: active members retiring with at least 25 Years of Service: 3% of Base Pay, excluding Emoluments.

G:\Clients\451 Meriden\2012 pyb 0701 fye 0630\Valuation (biennial)\Pension Fire\2012 Report.docx