



buck

JUNE 30, 2009

ACTUARIAL VALUATION OF

THE POST RETIREMENT BENEFITS PLAN

OF

THE TOWN OF ANDOVER

September, 2009

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SECTION I - OVERVIEW

The Town of Andover has engaged Buck Consultants to prepare an actuarial valuation of their post-retirement benefits program as of June 30, 2009. The Town provided employee data and premium information.

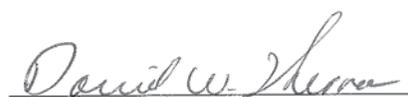
The purposes of the valuation are to analyze the current funded position of the Town's post-retirement benefits program, determine the level of contributions necessary to assure sound funding and provide reporting and disclosure information for financial statements, governmental agencies and other interested parties. This valuation report contains information required by the Government Accounting Standards Board's Statements Nos. 43 and 45, respectively entitled "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans" and "Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions." Liabilities have been determined based on an 8.0% discount rate. According to GASB principles, if the benefits are not pre-funded, the rate earned by the General Asset Account must be used. To estimate that impact we have used an alternative discount rate of 3.5%.

Section II provides a summary of the principal valuation results. Section V provides a projection of funding amounts.

Daniel Sherman is an Associate of the Society of Actuaries, a Member of the American Academy of Actuaries, and meets the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions concerning it.

Respectfully Submitted,

BUCK CONSULTANTS, AN ACS COMPANY



Daniel Sherman, ASA, MAAA, EA
Director and Consulting Actuary

2/23/2010

Date

SECTION II – REQUIRED INFORMATION

	Full prefunding 8%	Pay-as-you-go 3.5%	
	June 30, 2009	June 30, 2009	Difference
a) Actuarial valuation date			
b) Actuarial Value of Assets	\$ 0	\$ 0	\$ 0
c) Actuarial Accrued Liability			
Active participants	\$ 63,668,958	\$ 153,253,466	\$ 89,584,508
Retired participants	<u>60,202,786</u>	<u>91,854,728</u>	<u>31,651,942</u>
Total AAL	\$ 123,871,744	\$ 245,108,194	\$ 121,236,450
d) Unfunded Actuarial Liability "UAL" [c - b]	\$ 123,871,744	\$ 245,108,194	\$ 121,236,450
e) Funded ratio [b / c]	0.0%	0.0%	0.0%
f) Annual covered payroll	\$ 80,768,302	\$ 80,768,302	
g) UAL as percentage of covered payroll	153.4%	303.5%	
h) Normal Cost for fiscal year 2009	\$ 3,715,179	\$ 10,968,278	\$ 7,253,099
i) Amortization of UAL for fiscal year 2009*	6,394,330	7,082,432	688,102
j) Interest to end of fiscal year	0	0	0
k) Annual Required Contribution "ARC" for fiscal year 2009 [h + i + j]	\$ 10,109,509	\$ 18,050,710	\$ 7,941,201
l) Expected benefit payments	\$ 5,362,992	\$ 5,362,992	\$ 0
m) Increase in annual cost to fund the Plan [k - l]	\$ 4,746,517	N/A	
n) Increase in Net OPEB Obligation (NOO)	N/A	\$ 12,687,718	

* 30-year amortization, increasing 4.5% per year

SECTION III - MEMBERSHIP DATA AND MEDICAL PREMIUM

Monthly Premiums effective July 1, 2009

Health benefits are available to employees and retirees through a number of plans. The following are the most popular (gross monthly rates/subscriber):

Retired Town Employees:

Master Medical (Individual)	\$845.31
Master Medical (Family)	\$2,017.72
Master Health Plus (Individual)	\$1,111.38
Master Health Plus (Family)	\$2,656.25
HMO Blue New England (Individual)	\$562.29
HMO Blue New England (Family)	\$1,506.91
Medex II (Individual)	\$405.53
Managed Blue Senior (Individual)	\$394.12

Retired Teachers:

Unicare Basic (Individual)	\$740.10
Unicare Basic (Family)	\$1,779.40
Unicare Basic CIC (Individual)	\$1,164.90
Unicare Basic CIC (Family)	\$2,822.80
Unicare OME/CIC with Part B (Individual)	\$452.40
Unicare OME/CIC with Part A&B (Individual)	\$895.40
Fallon Select (Individual)	\$490.40
Health New England MedPlus (Individual)	\$362.20
NHP Care (Individual)	\$415.50
NHP Care (Family)	\$1,101.00

SECTION III - MEMBERSHIP DATA AND MEDICAL PREMIUM

Number of Employees	School	Sewer	Water	Town	Total
Actives	878	5	23	329	1,235
Retirees and Beneficiaries	508	1	7	263	779
Total	<u>1,386</u>	<u>6</u>	<u>30</u>	<u>592</u>	<u>2,014</u>
Accrued Liability @ 8%					
Active	43,614,270	327,180	1,458,700	18,268,808	63,668,958
Retirees and Beneficiaries	41,126,837	14,886	553,899	18,507,164	60,202,786
Total	<u>84,741,107</u>	<u>342,066</u>	<u>2,012,599</u>	<u>36,775,972</u>	<u>123,871,744</u>
Annual Required Contribution @ 8%					
Normal Cost with interest	2,929,160	4,890	38,046	743,083	3,715,179
Amortization of UAL with interest	4,374,384	17,658	103,892	1,898,396	6,394,330
Total	<u>7,303,544</u>	<u>22,548</u>	<u>141,938</u>	<u>2,641,479</u>	<u>10,109,509</u>
Pay-as-you-go	3,876,485	3,163	39,849	1,443,495	5,362,992
Difference	3,427,059	19,385	102,089	1,197,984	4,746,517
Accrued Liability @ 3.5%					
Active	103,076,457	851,142	3,669,442	45,656,425	153,253,466
Retirees and Beneficiaries	61,841,189	17,079	935,517	29,060,943	91,854,728
Total	<u>164,917,646</u>	<u>868,221</u>	<u>4,604,959</u>	<u>74,717,368</u>	<u>245,108,194</u>
Annual Required Contribution @ 3.5%					
Normal Cost with interest	8,411,483	19,502	116,032	2,421,261	10,968,278
Amortization of UAL with interest	4,765,316	25,087	133,061	2,158,968	7,082,432
Total	<u>13,176,799</u>	<u>44,589</u>	<u>249,093</u>	<u>4,580,229</u>	<u>18,050,710</u>
Pay-as-you-go	3,876,485	3,163	39,849	1,443,495	5,362,992
Difference	9,300,314	41,426	209,244	3,136,734	12,687,718

SECTION IV – REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF FUNDING PROGRESS - 8%

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Actuarial Accrued Liability (AAL)	(b) - (a) Unfunded AAL (UAL)	(a) / (b) Funded Ratio	(c) Payroll	(d) Unfunded AAL as % of Payroll
June 30, 2009	0	123,871,744	123,871,744	0.00%	80,768,302	153.4%

SCHEDULE OF FUNDING PROGRESS - 3.5%

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Actuarial Accrued Liability (AAL)	(b) - (a) Unfunded AAL (UAL)	(a) / (b) Funded Ratio	(c) Payroll	(d) Unfunded AAL as % of Payroll
June 30, 2009	0	245,108,194	245,108,194	0.00%	80,768,302	303.5%

SECTION V – SCHEDULE OF EMPLOYER CONTRIBUTIONS

The Government Accounting Standards Board's Statement No. 45 "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions" outlines various requirements of a funding schedule that will amortize the unfunded actuarial liability and cover normal costs. Amortization of the unfunded actuarial liability is to be based on a schedule that extends no longer than 30 years. The contribution towards the amortization of the unfunded actuarial liability may be made in level payments or in payments increasing at the same rate as salary increases.

In the amortization schedule shown on the following pages, the amortization of the unfunded accrued liability is assumed to increase annually by 4.5%. The normal cost is expected to increase at the same rate as the assumed health care trend rate. The contributions were computed assuming that the contribution is paid on June 30th.

SECTION V – SCHEDULE OF EMPLOYER CONTRIBUTIONS

Full Prefunding 8%

Fiscal Year	Amortization			
<u>Ending In</u>	<u>Normal Cost</u>	<u>of UAL</u>	<u>ARC</u>	<u>Pay-as-You-Go</u>
2009	3,715,179	6,394,330	10,109,509	5,362,992
2010	3,900,938	6,682,075	10,583,013	5,548,018
2011	4,095,985	6,982,768	11,078,753	5,900,559
2012	4,300,784	7,296,993	11,597,777	6,496,776
2013	4,515,823	7,625,358	12,141,181	7,092,235
2014	4,741,614	7,968,499	12,710,113	7,617,609
2015	4,978,695	8,327,081	13,305,776	8,249,320
2016	5,227,630	8,701,800	13,929,430	8,820,678
2017	5,489,012	9,093,381	14,582,393	9,483,486
2018	5,763,463	9,502,583	15,266,046	10,143,405
2019	6,051,636	9,930,199	15,981,835	10,782,430
2020	6,354,218	10,377,058	16,731,276	11,410,288
2021	6,671,929	10,844,026	17,515,955	12,000,601
2022	7,005,525	11,332,007	18,337,532	12,615,364
2023	7,355,801	11,841,947	19,197,748	13,188,104
2024	7,723,591	12,374,835	20,098,426	13,840,254
2025	8,109,771	12,931,703	21,041,474	14,524,654
2026	8,515,260	13,513,630	22,028,890	15,242,896
2027	8,941,023	14,121,743	23,062,766	15,996,656
2028	9,388,074	14,757,221	24,145,295	16,787,689
2029	9,857,478	15,421,296	25,278,774	17,617,838
2030	10,350,352	16,115,254	26,465,606	18,489,039
2031	10,867,870	16,840,440	27,708,310	19,403,320
2032	11,411,264	17,598,260	29,009,524	20,362,812
2033	11,981,827	18,390,182	30,372,009	21,369,751
2034	12,580,918	19,217,740	31,798,658	22,426,483
2035	13,209,964	20,082,538	33,292,502	23,535,470
2036	13,870,462	20,986,252	34,856,714	24,699,297
2037	14,563,985	21,930,633	36,494,618	25,920,674
2038	15,292,184	22,917,511	38,209,695	27,202,449
2039	16,056,793	-	16,056,793	28,547,607
2040	16,859,633	-	16,859,633	29,959,283

* Assumes payment is made at the end of the fiscal year.

SECTION V – SCHEDULE OF EMPLOYER CONTRIBUTIONS

Pay-as-You-Go 3.5%

Fiscal Year	Amortization			
<u>Ending In</u>	<u>Normal Cost</u>	<u>of UAL</u>	<u>ARC</u>	<u>Pay-as-You-Go</u>
2009	10,968,278	7,082,432	18,050,710	5,362,992
2010	11,516,692	7,511,648	19,028,340	5,548,018
2011	12,092,527	7,962,745	20,055,272	5,900,559
2012	12,697,153	8,430,186	21,127,339	6,496,776
2013	13,332,011	8,915,469	22,247,480	7,092,235
2014	13,998,612	9,422,229	23,420,841	7,617,609
2015	14,698,543	9,949,087	24,647,630	8,249,320
2016	15,433,470	10,499,569	25,933,039	8,820,678
2017	16,205,144	11,072,912	27,278,056	9,483,486
2018	17,015,401	11,671,154	28,686,555	10,143,405
2019	17,866,171	12,296,993	30,163,164	10,782,430
2020	18,759,480	12,952,996	31,712,476	11,410,288
2021	19,697,454	13,642,657	33,340,111	12,000,601
2022	20,682,327	14,367,838	35,050,165	12,615,364
2023	21,716,443	15,132,491	36,848,934	13,188,104
2024	22,802,265	15,937,208	38,739,473	13,840,254
2025	23,942,378	16,784,069	40,726,447	14,524,654
2026	25,139,497	17,675,258	42,814,755	15,242,896
2027	26,396,472	18,613,072	45,009,544	15,996,656
2028	27,716,296	19,599,927	47,316,223	16,787,689
2029	29,102,111	20,638,364	49,740,475	17,617,838
2030	30,557,217	21,731,053	52,288,270	18,489,039
2031	32,085,078	22,880,802	54,965,880	19,403,320
2032	33,689,332	24,090,564	57,779,896	20,362,812
2033	35,373,799	25,363,445	60,737,244	21,369,751
2034	37,142,489	26,702,706	63,845,195	22,426,483
2035	38,999,613	28,111,782	67,111,395	23,535,470
2036	40,949,594	29,594,280	70,543,874	24,699,297
2037	42,997,074	31,153,995	74,151,069	25,920,674
2038	45,146,928	32,794,914	77,941,842	27,202,449
2039	47,404,274	34,521,231	81,925,505	28,547,607
2040	49,774,488	36,337,357	86,111,845	29,959,283

* Assumes payment is made at the end of the fiscal year.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF ANDOVER, ALL GROUPS

- Pre-Age 65 Retirees:*** Current retirees who are under age 65 are assumed to remain in their current medical plan until age 65.
- Current active employees who are assumed to retire prior to age 65 are valued with a weighted-average premium. This weighted-average premium is based on the medical plan coverage of current retirees under age 65.
- At age 65, all participants are assumed to participate in post 65 plans in the same proportions as current retirees over age 65.
- Post-Age 65 Retirees:*** Current retirees over age 65 remain in their current medical plan until death.
- It is assumed that future retirees are Medicare eligible. Costs were developed from a weighted average of the Town developed monthly costs.
- Termination Benefit:*** 65% of current actives over age 50 with at least 10 years of service are expected to elect medical coverage starting at age 65.
- Medical Plan Costs:*** It is assumed that future retirees participate in the same manner as current retirees. The Town is fully insured. Employee cost sharing is based on current rates. Future cost sharing is based on the weighted average of the current cost sharing of retirees and beneficiaries.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

GROUPS 1 AND 2 (NON-TEACHERS)

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, disability, death and service retirement are as follows:

Age	Disability	Service Retirement		Years of Service	Rates of Withdrawal
		Male	Female		
25	.02%			0	15.0%
30	.03			1	12.0
35	.06			2	10.0
40	.10			3	9.0
45	.15			4	8.0
50	.19	1.0%	1.5%	5	7.6
55	.24	2.0	5.5	10	5.4
60	.28	12.0	5.0	15	3.3
62	.30	30.0	15.0	20	2.0
65	.30	40.0	15.0	25	1.0
69		30.0	20.0	30+	0.0

Mortality: The RP-2000 Combined Healthy Table. For the period after disability retirement, the RP-2000 Combined Healthy Table set forward 2 years is used.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

GROUPS 1 AND 2 (TEACHERS)

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of withdrawal and vesting, disability, death and service retirement are as follows:

Age	Disability	Years of Service	Rates of Withdrawal
25	.02%	0	15.0%
30	.03	1	12.0
35	.06	2	10.0
40	.10	3	9.0
45	.15	4	8.0
50	.19	5	7.6
55	.24	10	5.4
60	.28	15	3.3
62	.30	20	2.0
65	.30	25	1.0
69		30+	0.0

Age	Male Service Retirement		Female Service Retirement	
	<20	20+	<20	20+
50	0.00	0.01	0.00	0.01
55	0.02	0.03	0.02	0.04
60	0.12	0.20	0.12	0.16
61	0.15	0.30	0.15	0.20
62	0.18	0.35	0.18	0.25
63	0.15	0.35	0.15	0.25
64	0.25	0.30	0.25	0.30
65	0.40	0.50	0.40	0.40
66	0.40	0.30	0.40	0.30
67	0.40	0.30	0.40	0.25
68	0.40	0.30	0.40	0.35
69	0.40	0.40	0.40	0.35
70	1.00	1.00	1.00	1.00

Teachers electing the increased benefit under Chapter 114 of the Acts of 2000 were assumed to have higher rates of retirement from ages 54 to 62 if their service was greater than 30 years. These rates are the same for males and females. The rate at age 54 is 0.035. The rate increases to 0.06 at age 55, 0.18 at age 56, and 0.30 at age 57. The rate for ages 58, 59, and 62 is 0.40. The rate for ages 60 and 61 is 0.35.

Mortality: The RP-2000 Combined Healthy Table. For the period after disability retirement, the RP-2000 Combined Healthy Table set forward 2 years is used.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS**GROUP 4**

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of disability, service retirement, and withdrawal are as follows:

Age	Disability	Service Retirements	Years of Service	Rates of Withdrawal
25	0.20%		0	15.0%
30	0.30		1	15.0
35	0.30		2	15.0
40	0.30		3	15.0
45	1.00	1.0%	4	15.0
50	1.25	2.0	5	15.0
55	1.20	15.0	6	15.0
60	0.85	20.0	7	15.0
62	0.75	25.0	8	15.0
65	0.00	100.0	9	15.0
69			10	15.0
			11+	0.0

Mortality: The RP-2000 Combined Healthy Table. For the period after disability retirement, the RP-2000 Combined Healthy Table set forward 2 years is used.

SCHEDULE B - SUMMARY OF PROGRAM PROVISIONS

Retirement Medical Insurance: Retired town employees pay a variable portion of their post-retirement medical costs, which varies by plan. Retired teachers pay 10% of their post-retirement medical costs.

Life Insurance: The Town of Andover contributes \$1.28 per month for each retired town employee receiving life insurance.

Spousal Coverage: Current and future retirees may elect to include their spouses as part of their post-retirement benefits.

Section 18A Coverage: The Town has elected to adopt Section 18A under Chapter 32B of the General Laws of Massachusetts, which requires that an employee or retiree must participate in the Medicare program as the primary payer once one reaches age 65 and is Medicare eligible.

Retirement Eligibility: Age 55 with 10 years of service, or 20 years of service.

Ordinary Disability Eligibility: 10 years of service and under age 55.

Termination Eligibility: 10 years of service.

SCHEDULE C - GLOSSARY OF TERMS

Actuarial accrued liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of OPEB benefits and expenses which is not provided for by future Normal Costs and therefore is the value of benefits already earned.

Actuarial assumptions

Assumptions as to the occurrence of future events affecting OPEB costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided OPEB benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.

Actuarial cost method

A procedure for determining the Actuarial Present Value of OPEB benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarial experience gain or loss

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Amortization (of unfunded actuarial accrued liability)

That portion of the OPEB plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability.

Annual OPEB cost

An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.

Annual required contributions of the employer (ARC)

The employer's periodic expense to a defined benefit OPEB plan, calculated in accordance with the parameters. It is the value of the cash contributions for a funded plan and the value of the expense entry in the profit and loss section of the financial statements.

Closed amortization period (closed basis)

A specific number of years that is counted from one date and, therefore, declines to zero with the passage of time. For example, if the amortization period initially is thirty years on a closed basis, twenty-nine years remain after the first year, twenty-eight years after the second year, and so forth. In contrast, an open amortization period (open basis) is one that begins again or is recalculated at each actuarial valuation date. Within a maximum number of years specified by law or policy (for example, thirty years), the period may increase, decrease, or remain stable.

Covered payroll

Annual compensation paid to active employees covered by an OPEB plan. If employees also are covered by a pension plan, the covered payroll should include all elements included in compensation on which contributions to the pension plan are based. For example, if pension contributions are calculated on base pay including overtime, covered payroll includes overtime compensation.

Defined benefit OPEB plan

An OPEB plan having terms that specify the benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

Funded ratio

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

SCHEDULE C - GLOSSARY OF TERMS

Funding policy

The program for the amounts and timing of contributions to be made by plan members, employer(s), and other contributing entities (for example, state government contributions to a local government plan) to provide the benefits specified by an OPEB plan.

Healthcare cost trend rate

The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

Investment return assumption (discount rate)

The rate used to adjust a series of future payments to reflect the time value of money.

Level dollar amortization method

The amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

Level percentage of projected payroll amortization method

Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases due to inflation; in dollars adjusted for inflation, the payments can be expected to remain level.

Net OPEB obligation

The cumulative difference since the effective date of this Statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt. It will be included as a balance sheet entry on the financial statements.

Normal cost

That portion of the Actuarial Present Value of OPEB benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. It is the value of benefits to be accrued in the valuation year by active employees.

OPEB-related debt

All long-term liabilities of an employer to an OPEB plan, the payment of which is not included in the annual required contributions of a sole or agent employer (ARC) or the actuarially determined required contributions of a cost-sharing employer. Payments generally are made in accordance with installment contracts that usually include interest. Examples include contractually deferred contributions and amounts assessed to an employer upon joining a multiple-employer plan.

Other postemployment benefits

Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-as-you-go

A method of financing an OPEB plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

Required supplementary information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.