City of Leominster Post-employment Medical, Dental and Life Insurance Benefits

Actuarial Valuation January 1, 2006

STONE CONSULTING, INC.

October 2007

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POST-EMPLOYMENT MEDICAL AND LIFE INSURANCE BENEFITS
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INTRODUCTION

This report presents the results of the actuarial valuation of the City of Leominster Post-employment Medical and Life Insurance Benefits as of January 1, 2006. The valuation was performed for the purpose of measuring the actuarial accrued liabilities associated with these benefits and calculating a funding schedule.

The valuation was based on participant data as of January 1, 2006 supplied by the City of Leominster. The provisions reflected in the valuation are based on the benefits provided by the City and Chapter 32B of the General Laws of the Commonwealth of Massachusetts and related statutes.

We are pleased to present the results of this valuation. We are available to respond to any questions on the content of this report.

Respectfully submitted,

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October 12, 2007

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SUMMARY OF ACTUARIAL RESULTS

The actuarial values in this report were calculated consistent with the Governmental Accounting Standards Board (GASB) Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, issued June 2004. Values at two discount rates are presented. The 7.75% discount rate represents the expected rate of return for a funded plan with a longer-term investment horizon. For an unfunded plan, the GASB Statement No. 45 calls for the use of a discount rate approximating the rate of return of Leominster's general assets. If Leominster is ultimately required by GASB to use this lower discount rate, illustrated here at 4.75%, the liability and normal cost increase dramatically.

- Actuarial Accrued Liability ("AAL") is the "price" attributable to benefits earned in past years. The total AAL as of January 1, 2006 (at 7.75% discount rate) is $78.4 million. This is made up of $42.5 million for current active Leominster employees, and $35.9 for Leominster retirees, spouses and survivors.

- The Normal Cost is the "price" attributable to benefits earned in the current year. The Normal Cost as of January 1, 2006 (at 7.75% discount rate) is $3.6 million.

- Based on a thirty-year funding schedule, the Fiscal 2006 contribution would be $7,432,283. This compares to the pay-as-you-go contribution of the existing costs for current retirees of $2,950,226.

The following table shows the breakdown of the Actuarial Accrued Liability between future retirees and current retirees, as well as the normal cost, at the two different discount rates:

Leominster

Liability as of January 1, 2006:	7.75% discount rate	4.75% discount rate
Future Retirees	$42,531,799	$76,057,465
Current Retirees, Beneficiaries, Vesteds and Survivors	$25,863,743	$49,262,047
Total AAL	**$78,395,542**	**$125,319,512**
Normal Cost	$3,612,023	$7,123,065

VALUATION ASSUMPTIONS AND METHODOLOGY

Valuation Method

The valuation of the post-employment medical and life insurance benefits is based upon the projected unit credit actuarial cost method. Under this method, future health care benefit cost is projected using assumed rates of annual health care cost increases (health care cost trend rates). The cost of future expected life insurance death benefits is added to the projected medical cost. The actuarial value of the future expected benefits is allocated proportionately over a health plan member's working lifetime.

A normal cost (or service cost) is determined for each year of the member's creditable service and is equal to the value of the future expected benefits divided by the total expected number of years of service. This is similar to a normal cost in a retirement actuarial valuation. The Actuarial Accrued Liability is the accumulated value of prior normal costs, similar to the actuarial accrued liability in a retirement actuarial valuation, and represents the liability associated with prior service.

GASB Statement No. 45

The actuarial cost method used in this valuation is consistent with the Governmental Accounting Standards Board (GASB) Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, issued June 2004. It is one of the allowable methods specified in that accounting standard, and is the method most similar to the prescribed method of accounting for these benefits in the private sector described in the Financial Accounting Standards Board Statement 106 (FAS106).

Difference Between FAS 106 and GASB Statement No. 45

The GASB Statement No. 45 differs in one important regard from the actuarial cost method described in the private sector accounting standard. In the FAS 106 methodology, benefits are considered to be fully earned in the first 10 years of service, since members become vested in the retirement benefits in 10 years. Compared to the FAS 106 method, the GASB attribution method produces a lower accrued liability for the future retirees. Spreading the benefit accrual over the full working lifetime in this fashion is appropriate for the public sector since the taxpayer who receives the service "pays" for the benefit instead of concentrating the cost in the first ten years of service. There are other significant differences between the GASB Statement No. 45 and FAS106, most noticeably in the choice of discount rate. The GASB discount rate assumption is discussed below.

Actuarial Assumptions

Details of the assumptions used in this valuation are shown in Section II. Here we present a brief discussion of the assumptions selected.

Demographic and financial assumptions

The actuarial assumptions used in this valuation are generally the same as the assumptions used in the January 1, 2006 actuarial valuation of the Leominster Retirement System. These include a 7.75% discount (interest) rate, and consistent mortality, disability, withdrawal and retirement rates. Because the GASB Statement No. 45 indicates that the discount rate for an unfunded postemployment benefit plan should be based on the rate of return on the employer's general assets, we have also calculated results using a discount rate of only 4.75%.

Health care plan assumptions

Assumptions unique to post-retirement medical plans include initial annual health care costs and annual health care cost increase (trend) rates, Medicare eligibility, plan participation and coverage election rates.

Current health care costs by age

Because actual claim costs for the Leominster population were not available, initial health care cost assumptions were derived from premium rates determined by

Leominster for the various health care plans offered in fiscal 2006. Leominster offers a number of Medicare supplement or wrap plans to Medicare-eligible retirees, plus Indemnity, HMO (Health Care Maintenance Organization), POS (Point of Service) and PPO (Preferred Provider Organization) plan options. Separate cost assumptions were determined for Medicare-eligible participants, recognizing the much lower cost of Medicare supplement plans. The HMO, POS, and PPO plans, which have negotiated levels of reimbursement to the medical providers, were combined for valuation purposes under the category "Managed Care" Plans. Indemnity Plans, not tied to a negotiated reimbursement structure were valued separately. There is only one retiree dental plan, so no combining of plans was done.

Weighted-average costs for each plan grouping were calculated based on actual Leominster active and retiree population enrollment. However, in order to capture the effect of aging on health care costs, an assumption is required for the increase in health care costs as a person ages. We based our aging assumption on a study sponsored by the Society of Actuaries Health Section in August 2003. The effect of this aging assumption is illustrated in the table of "Initial Monthly Health Care Costs" in the Actuarial Methods and Assumptions section of this report.

A similar method was used for the development of dental claim costs. However, a different aging curve was used since these costs do not increase anywhere near as much with age. The reasons for this slower rate of increase are two-fold. First, certain preventive and low cost procedures actually decrease in frequency with aging. Secondly, the relatively low annual plan maximum on a dental plan puts a cap on the rate of increase.

Cost trends

The initial health care cost trend assumptions were selected based upon a review of Leominster's actual rate increases for fiscal year 2006. Premium rate increases typically include factors other than health care cost increases, such as aging of the covered population, that are reflected elsewhere in our valuation methodology. Therefore, premium rate increases are not themselves a proxy for health care trends. However, they do give some indication of the level of expected cost increases.

As is typical in post-retirement medical valuations, initially higher rates of health care cost trend are assumed to decrease over time to an ultimate rate consistent with long-term economic assumptions. We have developed different trends for Medical Indemnity, Medical Managed Care, Medicare Managed Care, Medicare Indemnity and Dental. The Medical Indemnity trends begin at 12% and scales down to 7%. The Managed Care trends begin at 11% and scale down to 6%. For Medicare, the indemnity trend rates begin at 10% and scale down to 7% and the Managed Care Trend rates begin at 9% and scale down to 6%. Dental Trends begin at 10% and scale down to 5%.

In addition, the above first year trends have been modified to reflect rate increases that have actually been put in for Fiscal 2007. This modification is reasonable when the valuation is done late enough that the actuary actually knows the first year rate increase.

In recent years, health care cost increases have been particularly volatile, and this actuarial assumption should be reviewed and most likely reset every year or two. Implicit in our health care cost trend assumptions is that Leominster will continue to take action, through negotiation with its health plan provider(s) and/or plan design changes, to keep annual premium rate increases in line with reasonable budget expectations. As expectations of future health care cost increases change, they will be reflected in future valuations, resulting in actuarial gains/losses. These will be incorporated in the future costs and funding schedules. In this manner, there is a systematic means of adjusting to changes in the health care environment.

Sensitivity analysis

The effect of increasing health care costs is extremely significant in an actuarial valuation of postretirement health benefits. As experience emerges the trend assumptions we have used are unlikely to be exactly realized. To illustrate the effect of different trend rates on the actuarial valuation results, we have included a sensitivity analysis of the effect on the actuarial accrued liability, normal cost and annual required contribution of a 1% increase or decrease in the health care cost trend assumption.

Medicare

Medicare eligibility is an important assumption with regard to future costs. We have assumed that active employees who were hired after March 1986 will be Medicare eligible due to their mandated participation in the Medicare program. Active employees prior to that employment date are assumed to be 85% Medicare eligible. This assumption is based on the percentage of current retirees, beneficiaries and survivors who are enrolled in Medicare plan options.

Medicare Changes

The Medicare Prescription Drug, Improvement and Modernization Act of 2003, which was signed into law in December of that year, will introduce significant changes to the Medicare program and its interaction with employer-sponsored post-retirement benefits. In future years, Medicare beneficiaries will be able to participate in a new, voluntary, prescription drug coverage program. In order to encourage employers, including public-sector employers, to continue providing prescription drug coverage to retirees, the Act provides for a cash subsidy to employers whose prescription drug coverage is deemed to be actuarially equivalent to the new Medicare Part D drug coverage. This cash subsidy could be used to partially offset the cost of retiree medical benefits, including potentially reducing the accrued liability for a portion of the drug benefits provided by a retiree medical plan. The Act may have additional impact on retiree plan choices, as Medicare-eligible retirees may opt for the Part D coverage rather than an employer's plan options. Such changes, if they occur, may affect the selection of future actuarial assumptions.

No reflection of the provisions of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 has been included in this valuation. The Act will may affect future valuations through changes in claims experience and future plan design changes.

Health plan coverage election

Assumptions must also be made regarding the participation in health plans when active members retire. The assumptions are based on the employee's current plan choice, Medicare eligibility, and an examination of the current retirees' choices. We assumed that 90% of future eligible retirees and spouses will elect health plan coverage. We also assume that 85% of future retirees will have a covered spouse at the time of retirement. We assume that future retirees who re currently covered will elect coverage of the same type (Indemnity, or Managed Care) upon retirement. For those employees currently active and not enrolled in Leominster's medical plans, we have assumed that they opt for a medical plan that reflects the historical pattern of choice by retired employees. We assume that current retirees will continue the coverage they have now, if any. If they have opted out of Leominster coverage, we assume they will continue to do so. Due to Leominster's adoption of Section 18 of Chapter 32B of Massachusetts General Laws, we have assumed that all retirees will enroll in Medicare, if eligible, on the later of age 65 or retirement. Once a retiree is in Medicare, we have assumed enrollment in a Medicare supplement plan. The type of Medicare supplement plan they choose, Managed Care or Indemnity, is based on their prior plan election type.

DATA

The participant census data for the valuation study was supplied by the Leominster Retirement Board and the City of Leominster. Participants include Leominster active employees including teachers, retirees, disability retirees, surviving spouses, and inactive former employees with 10 or more years of service who qualify for a vested retirement benefit.

The participant census data was not audited by Stone Consulting, Inc. However, it was checked for reasonableness.

Summaries of active participants and Leominster retiree census data are included in Section II.

FUNDING

There are alternative ways to plan for the payment of post-retirement health and life insurance benefits: continue to fund on a pay-as-you go method, contribute on an ad-hoc basis to a fund for this purpose, or develop a funding schedule in which the unfunded amount is amortized over some number of years. With the funding schedule, the normal cost must continue to be paid each year to keep current.

There is no legal requirement to prefund these post-employment benefit liabilities. Nor does GASB Statement No. 45 require actual prefunding; however, its accounting requirements will serve to highlight the substantial unfunded accrued liabilities associated with these benefits.

Illustrative funding schedule

The GASB Statement No. 45 is designed to account for non-pension post-employment benefits using an approach similar to the accounting for retirement benefits. It develops an Annual Required Contribution ("ARC") that is based on the Normal Cost plus an amortization of the Unfunded Actuarial Accrued Liability ("UAAL"). To the extent that actual contributions equal to the ARC are made by the employer to the post-employment health benefit plan, no additional liability will be required to be shown on Leominster's balance sheet. Employer contributions may be in the form of benefit payments or contributions to a fund set aside for future benefit payments. Such a fund must meet the requirements set out in the accounting standard.

We have calculated an illustrative funding schedule for the post-employment medical and life insurance benefits, consistent with the GASB Statement No. 45. This funding schedule begins with Leominster's Fiscal Year 2006. The full schedule is shown in Section II.

Development of funding schedule

The contribution amount for fiscal 2006 is $7,423,283. The January 1, 2006 Unfunded Actuarial Accrued Liability is $78,395,542. Because there are no funds set aside, it is equal to the total actuarial accrued liability (AAL). The UAAL is amortized over thirty years using an increasing amortization payment at the rate of assumed salary increases (4.75%). The funding contribution is the amortization payment plus the projected normal cost. Under the GASB Statement No. 45, thirty years is the maximum amortization period allowed. Shorter periods of time and/or other amortization patterns could be considered. The thirty-year funding schedule shown produces the lowest possible Fiscal 2006 contribution under the GASB parameters. Note that the contribution is assumed to be made mid-Fiscal year (January 1). So the first contribution was assumed to be made January 1, 2006.

Yearly contributions will increase, as both normal cost and amortization payments increase each year.

Cash flow consideration

We have analyzed the cash flow of a funded post-employment medical trust by comparing the expected payouts of claims over the thirty-year period to expected contribution levels. If the actuarial assumptions are met, the funded amounts will be more than sufficient to cover annual benefit payments each year. Prior to adopting a funding schedule we recommend additional analysis be conducted to examine the effects of potential actuarial gains and losses on the cash flow.

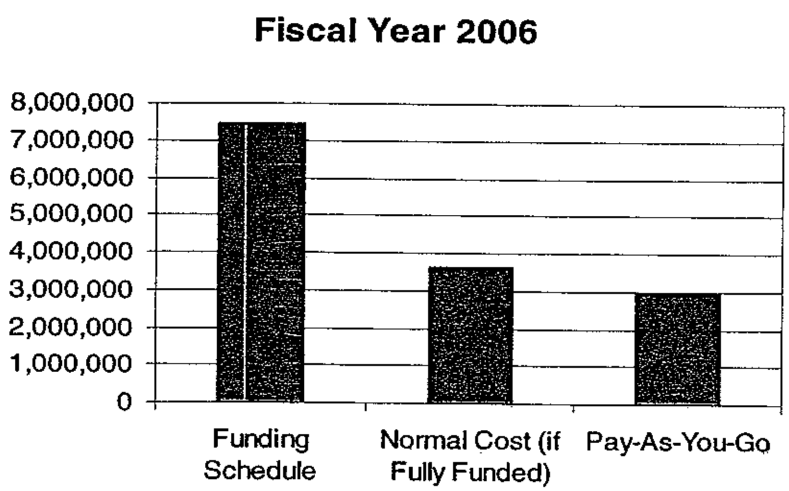
Funding versus Pay-As-You-Go

Currently, post-employment medical benefits are paid for on a pay-as-you-go basis. Leominster's pay-as-you-go cost for fiscal 2006 is projected to be $2,950,226. If the retiree medical plan were 100% funded, and the fund earned the assumed 7.75% rate of return, then the cost for fiscal 2006 would be the normal cost for the year, which is projected to be $3,612,023.

Like almost all Massachusetts public entities, Leominster has not yet set aside any money to pre-fund retiree medical and life insurance benefits. Therefore, there is a large unfunded accrued liability for benefits already earned by employees and retirees. This amount is over $78,000,000 as of January 1, 2006. This leads to the $3,612,203 amortization payment required for fiscal 2006 under the illustrative 30-year increasing funding schedule.

The total contribution required under the funding schedule equals $7,432,283, which is the sum of the normal cost plus the amortization payment.

A comparison of the funding schedule amount, the normal cost (the contribution amount if the UAAL was $0) and the pay-as-you-go amount is illustrated in the following chart:



To reach the level illustrated in the second column of the above chart, the accrued liability would have to have been fully funded over past years. As can be seen in the funding schedule, the retiree medical plan's normal cost will increase each year, so that by the time the initial unfunded liability is fully amortized, the required annual contribution will be substantially higher than is illustrated here for the first year. The current pay-as-you-go method does not provide any funding of the unfunded liability, and pay-as-you-go costs are projected to increase dramatically as more and more employees retire. A projection of annual expected retiree pay-as-you-go costs is included with the funding schedule.

The partial subsidy of prescription drug benefit costs that may become available under the Medicare Prescription Drug, Improvement and Modernization Act of 2003 is a potential source of funds for a portion of the retiree medical costs. To the extent that this subsidy reimburses Leominster for drug benefits it would already be paying for, the additional cash from the subsidy could be used to help pre-fund future benefits. The magnitude of any future subsidy is as yet undetermined.

IMPLEMENTATION

According to the GASB Statement No. 45, its provisions would be effective for Leominster fiscal years beginning after December 15, 2006. The timing is due to Leominster being a "phase 1 government under GASB 34". In the first fiscal year of adoption, Fiscal 2008, Leominster would need to record a liability on its balance sheet to the extent that its contributions (including benefit payments) for post-retirement medical and life insurance benefits were less than the Annual Required Contribution ("ARC") determined in accordance with the GASB standard. The ARC, simply stated, is the sum of the normal cost for a given year plus the amortization of the unfunded actuarial liability. The total actuarial liability is determined by a valuation to be performed at least every two years. The total actuarial liability is reduced by any assets set aside to pre-fund the post-retirement benefits, with the resulting unfunded actuarial liability being amortized according to a funding schedule similar to that illustrated in this report.

To be considered a funded system, the retiree medical plan assets must be "segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employers or plan administrator, for the payment of benefits in accordance with the terms of the plan." (GASB 45, p. 47, "Plan Assets"). Therefore, for Leominster to receive "credit" under the GASB accounting standard for assets set aside to pre-fund post-retirement benefits, these assets must be segregated in a trust or other account that is not subject to use for any other purpose by Leominster. The Authority's enabling legislation may allow it to establish a segregated fund for post-retirement benefits or to invest post-retirement medical plan assets in a similar manner as retirement assets. A few Massachusetts municipalities have already sponsored home rule petitions to allow them to pre-fund their post-retirement medical and life insurance benefits. It seems likely that the Legislature will need to address this issue in the future.

If Leominster were to set aside assets prior to implementation of the proposed GASB standard, when the standard is implemented, the assets would be recognized on Leominster's financial statement slowly over the entire length of the funding schedule, probably thirty years. This may not be the most desirable option. An alternative would be to set aside money before Fiscal 2008 in a Leominster account, not a true segregated trust fund, and then contribute the money to a trust fund once Leominster implements the proposed statement. In this manner, the contributions would be recognized immediately on Leominster's financial statement as opposed to over a thirty-year period. The downside of this approach is possible restrictions on how the money may be invested in Leominster's account as well as the possibility that the money may be used for another purpose prior to transfer to a segregated trust fund.

RECOMMENDATION AND COMMENTS

We commend Leominster for taking the lead in examining its liabilities associated with post-employment medical and life insurance benefits. Post-employment medical benefits are a significant long-term liability that is only now starting to be addressed by Massachusetts government employers.

We recommend that Leominster examine the effect of recognizing the post-employment medical benefit costs on their financial statement. Some of the related issues that should be examined are the possibility of regular or ad hoc funding, as well as the effect of any changes to Leominster's post employment medical benefits program. We recommend that Leominster develop a group that is cognizant of the relevant financial and employee benefits issues, to provide leadership to Leominster as this topic gains visibility and importance in the coming years.

SECTION II

ACTUARIAL VALUATION DETAILS

Plan Participation

Distribution by Age: Retirees, Beneficiaries and Survivors *

Age	Number
0-19	0
20-24	0
25-29	1
30-34	1
35-39	1
40-44	11
45-49	13
50-54	17
55-59	80
60-64	64
65-69	76
70-74	88
75-79	57
80-84	63
85+	43
TOTAL	515

* includes 44 inactive vested participants

B. Future Retirees - Active participants

	# OF PARTICIPANTS*		
CURRENT PLAN	**Medicare eligible**	**Pre-Medicare eligible**	**Total**
No Medical / Unknown	180	9	189
Indemnity	14	7	21
Managed Care	736	137	873
TOTAL	930	153	1083

* "Pre-Medicare eligible" means hired prior to April 1, 1986 and "Medicare eligible" means hired April 1, 1986 or after.

Plan Definitions	Type of Plan	Managed Care
Network Blue	Pre-Medicare	Managed Care
Blue Choice	Pre-Medicare	Managed Care
Major Medical	Pre-Medicare	Managed Care
Master Health Plus	Pre-Medicare	Indemnity
Medex III	Medicare	Managed Care
Blue Care 65	Medicare	Managed Care
Secure Horizons	Medicare	Managed Care
Dental Blue	Dental	Indemnity

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C. Distribution by Age and Service: Active participants

Credited Service	Under 20	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 – 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75+	Total
Less than 5 years	1	20	97	72	53	53	46	36	128	12	4	0	1	**423**
5 but less than 10 years	0	0	7	38	44	36	45	42	34	13	1	0	0	**260**
10 but less than 15 years	0	0	0	3	20	16	26	24	16	6	3	0	0	**114**
15 but less than 20 years	0	0	0	0	10	32	25	31	24	10	4	0	0	**136**
20 but less than 25 years	0	0	0	0	0	4	16	17	10	4	2	0	1	**54**
25 but less than 30 years	0	0	0	0	0	0	4	16	10	2	1	0	0	**33**
30 or more years	0	0	0	0	0	0	0	11	45	6	2	0	0	**63**
Total	**1**	**20**	**104**	**113**	**127**	**141**	**162**	**177**	**167**	**53**	**16**	**0**	**2**	**1,083**

SECTION II

ACTUARIAL VALUATION DETAILS

Summary of Results

Members

• Actives	
– Pre-Medicare Coverage	153
– Post-Medicare Coverage	930
– Total	1,083
• Inactive vested members	44
• Retired, Disabled, Survivors and Beneficiaries	515

Actuarial Accrued Liability (AAL)
as of January 1, 2006

	at 7.75% discount	at 4.75% discount
– Active Employees	$ 42,531,799	$76,057,465
– Current Retirees	2,432,489	5,435,913
– Current Terminated Vesteds	33,432,254	43,826,134
– Total	$78,395,541	$125,319,511
Unfunded Accrued Liability		
• **January 1, 2006**	$78,395,541	$125,319,511
Normal (Service) Cost as of January 1, 2006	$3,612,023	$7,123,065

Summary of Results
(continued)

Thirty-Year Funding Schedule (Fiscal 2006)

	at 7.75% discount	at 4.75% discount
• Thirty year amortization of UAAL	$ 3,820,260	$ 4,177,317
• Normal Cost	3,612,023	7,123,065
• Total	$7,423,283	$11,300,382

Expected Claims

• Calendar 2006	$2,950,226

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FUNDING SCHEDULE

Fiscal Year	Normal Cost (1)	Amortization (2)	Contribution (3)	Remaining AAL (4)	Pay-as-You-Go Cost (5)
2006	$3,612,023	$3,820,260	$7,432,283	$80,354,866	$2,950,226
2007	$3,891,955	$4,001,722	$7,893,677	$82,270,513	$3,368,139
2008	$4,193,581	$4,191,804	$8,385,386	$84,129,808	$3,781,802
2009	$4,518,584	$4,390,915	$8,909,499	$85,918,657	$4,207,388
2010	$4,868,774	$4,599,483	$9,468,257	$87,621,410	$4,567,987
2011	$5,246,104	$4,817,959	$10,064,063	$89,220,719	$4,874,135
2012	$5,652,677	$5,046,812	$10,699,489	$90,697,385	$5,012,311
2013	$6,090,760	$5,286,535	$11,377,295	$92,030,190	$5,212,167
2014	$6,562,793	$5,537,646	$12,100,439	$93,195,716	$5,343,081
2015	$7,071,410	$5,800,684	$12,872,094	$94,168,147	$5,482,836
2016	$7,619,444	$6,076,217	$13,695,661	$94,919,055	$5,737,907
2017	$8,209,951	$6,364,837	$14,574,788	$95,417,170	$5,994,480
2018	$8,846,222	$6,667,167	$15,513,389	$95,628,129	$6,170,226
2019	$9,531,805	$6,983,857	$16,515,662	$95,514,203	$6,460,181
2020	$10,270,519	$7,315,590	$17,586,110	$95,034,005	$6,641,619
2021	$11,066,485	$7,663,081	$18,729,566	$94,142,171	$6,912,485
2022	$11,924,137	$8,027,077	$19,951,214	$92,789,014	$7,161,528
2023	$12,848,258	$8,408,363	$21,256,621	$90,920,151	$7,364,119
2024	$13,843,998	$8,807,761	$22,651,758	$88,476,101	$7,651,848
2025	$14,916,908	$9,226,129	$24,143,037	$85,391,844	$7,893,447
2026	$16,072,968	$9,664,370	$25,737,338	$81,596,353	$8,139,868
2027	$17,318,623	$10,123,428	$27,442,051	$77,012,077	$8,324,253
2028	$18,660,816	$10,604,291	$29,265,107	$71,554,390	$8,588,203
2029	$20,107,030	$11,107,994	$31,215,024	$65,130,991	$8,760,422
2030	$21,665,325	$11,635,624	$33,300,949	$57,641,258	$8,990,721
2031	$23,344,387	$12,188,316	$35,532,704	$48,975,544	$9,078,292
2032	$25,153,577	$12,767,261	$37,920,839	$39,014,425	$9,191,682
2033	$27,102,979	$13,373,706	$40,476,686	$27,627,874	$9,090,419
2034	$29,203,460	$14,008,957	$43,212,418	$14,674,383	$9,115,537
2035	$31,466,729	$14,674,383	$46,141,111	$0	$9,077,444

[1]Asssumes 7.75% annual increase in normal cost and a static group of actives

[2]Asssumes 4.75% annual increase in amortization payment

[3]Assumes mid-year fiscal year contribution

[4]Remaining AAL is as of January 1 of the following calendar year.

[5]The Pay-As-You-Go amount is for the current group of actives and retirees and is shown for the calendar year. It does not include any future hires. It is not directly comparable to the funding contribution but it included for illustrative purposes only. It does illustrate in the short-term, the estimated amount of claims costs for retirees. However, the retiree amount is expected to grow as new employees retire or become disabled.

Sensitivity analysis

The results of any actuarial valuation are sensitive to the assumptions used. That is, a change in an actuarial assumption will produce a change in the actuarial accrued liability and/or normal cost each year of the valuation. For example, the table on page 3 shows the effect of a much lower discount rate (4.75% versus 7.75%) on these values.

For postretirement medical plans in particular, the calculated actuarial values are highly sensitive to the assumed rate of health care cost trend. This is due to the compounding effect of the annual trend rates assumed for medical costs, as opposed to pension valuations where benefit levels typically remain fixed.

The following table illustrates the effect on our valuation results of a 1% increase or decrease in the assumed rates of health care cost trend in each year.

at 7.75% discount rate As of January 1, 2006	Health Care Cost Trend Rates		
Liability for:	As Reported	+1% each	-1% each year
Future Retirees	$42,531,799	$50,866,777	$35,907,293
Current Retirees, Beneficiaries, and Survivors	35,863,742	38,338,611	32,916,916
Total AAL	$78,395,541	$90,205,388	$67,016,151
Normal Cost as of January 1, 2006:	$3,612,023	$4,445,973	$2,959,618
Annual Required Contribution for Fiscal Year 2006:	$7,432,283	$8,851,734	$6,225,354

The cumulative effect of a 1% increase in health care cost trend increases the AAL by approximately 15%, the normal cost by 23%, and the required contribution by 19%. A 1% decrease in trend would decrease the AAL by 15%, the normal cost by 18%, and the required contribution by 16%.

There is also the likelihood – based on historical experience – of significant deviations from the smooth rates of health care cost increase typically projected in any actuarial valuation. Therefore, emerging experience under the plan is likely to differ from the assumptions made as of any valuation date. This will produce actuarial gains and losses each year, even if the underlying assumptions remain reasonable for the future. Amortization of gains and losses will affect the updated funding schedule calculated at any point in the future.

It is prudent, and under the GASB Statement No. 45 it will be required, to perform an updated actuarial valuation periodically. For an entity of Leominster's size, a new valuation will be required at least every two years.

ACTUARIAL METHODS AND ASSUMPTIONS

1. Actuarial Cost Method

   Costs are attributed between past and future service using the Projected Unit Credit cost method. For attribution purposes, benefits are assumed to accrue over all employee service until decrement.

2. Interest Rate/Discount Rate

   7.75% per year net of investment expenses

3. Mortality

   Actives: The RP-2000 Mortality Tables (Sex-distinct) for Employees
   Retirees: The RP-2000 Mortality Tables (Sex-distinct) for Healthy Annuitants
   Disableds: The RP-2000 Mortality Tables (Sex-distinct) for Healthy Annuitants set forward 5 years

4. Withdrawal Prior to Retirement (all except teachers)

   The rates shown at the following sample ages illustrate the withdrawal assumption:

	Rate of Withdrawal	
Age	***Group 1 and 2***	***Group 4***
20	37.51%	3.15%
25	28.23	2.85
30	17.35	2,48
35	10.07	1.88
40	7.21	.84
45	5.68	.02
50	4.57	.00
55	.00	.00

Withdrawal Prior to Retirement for Teachers

		Rate of Withdrawal		
	Service	0	5	10
Male Teachers	**Age**			
	25	9.00%	4.00%	4.00%
	35	11.00	4.80	3.70
	45	7.60	4.60	2.50
	55	5.00	3.70	1.50
Female Teachers	25	6.30%	9.00%	4.00%
	35	13.60	8.30	3.70
	45	9.10	5.80	2.50
	55	5.00	3.20	1.50

ACTUARIAL METHODS AND ASSUMPTIONS
(Continued)

5. Eligibility for Vested Post-Retirement Medical Benefits upon Withdrawal

   10 years of Service; assumed that individuals who withdraw prior to age 40 will elect a return of pension contributions and therefore be ineligible for retiree medical coverage

6. Disability Prior to Retirement

   The rates shown at the following sample ages illustrate the assumption regarding the incidence of disability. Disability is assumed to be 45% ordinary and 55% accidental for Group 1 (including teachers) and 2 and 10% ordinary and 90% accidental for Group 4.

	Rate of Disability	
Age	***Group 1 and 2***	***Group 4***
20	.03%	.10%
25	.04	.12
30	.06	.12
35	.08	.26
40	.12	.38
45	.18	.58
50	.31	.98
55	.50	1.60
60	.61	1.97

ACTUARIAL METHODS AND ASSUMPTIONS
(Continued)

7. Rates of Retirement

The rates shown at the following ages illustrate the assumption regarding the incidence of retirement, once the member (other than teachers) has achieved 10 years of service:

	Rates of Retirement	
Age	*Group 1 and 2*	*Group 4*
50	N/A	2.0%
51	N/A	2.0%
52	N/A	2.0%
53	N/A	2.0%
54	N/A	2.0%
55	10.0%	5.0%
56	3.0%	5.0%
57	3.0%	5.0%
58	3.0%	5.0%
59	5.0%	5.0%
60	5.0%	10.0%
61	5.0%	10.0%
62	10.0%	20.0%
63	10.0%	20.0%
64	10.0%	20.0%
65	100.0%	100.0%

7. Rates of retirement (continued)

The rates shown at the following ages illustrate the assumption for members of the Massachusetts Teachers Retirement System regarding the incidence of retirement, once the member has achieved 10 years of service:

	Males		**Females**		**Males and Females**
	<20 years	*20 + years*	*<20 years*	*20 + years*	*30+ years*
50	N/A	1.0%	N/A	1.0%	
51	N/A	1.0	N/A	1.0	
52	N/A	1.0	N/A	1.0	
53	N/A	1.0	N/A	1.0	
54	N/A	2.0	N/A	2.0	3.5%
55	2.0	3.0	2.0	4.0	6.0
56	4.0	3.0	4.0	4.0	18.0
57	7.0	5.0	7.0	5.0	30.0
58	8.0	7.0	8.0	7.0	40.0
59	9.0	10.0	9.0	11.0	40.0
60	12.0	20.0	12.0	16.0	35.0
61	15.0	30.0	15.0	20.0	35.0
62	18.0	35.0	18.0	25.0	40.0
63	15.0	35.0	15.0	25.0	40.0
64	25.0	30.0	25.0	30.0	40.0
65	40.0	50.0	40.0	40.0	40.0
66	40.0	30.0	40.0	30.0	40.0
67	40.0	30.0	40.0	25.0	40.0
68	40.0	30.0	40.0	35.0	40.0
69	40.0	40.0	40.0	35.0	40.0
70	100.0	100.0	100.0	100.0	100.0

8. Initial Health Care Claim Costs (Individual only)

Age	Managed Care Commercial	Indemnity Commercial	Managed Care Medicare	Indemnity Medicare	Dental
50	$7,930.63	$4,893.74	$1,472.31	$1,776.87	$375.65
55	$9,464.70	$4,893.74	$1,731.81	$2,090.05	$396.60
60	$11,626.40	$5,756.29	$2,066.80	$2,494.34	$417.56
65	$13,478.19	$6,869.75	$2,538.85	$3,064.04	$426.35
70	$15,249.33	$8,438.78	$2,943.22	$3,552.06	$435.34
75	$16,836.49	$9,782.86	$3,329.99	$4,018.83	$444.51
80	$17,695.32	$11,068.41	$3,676.57	$4,437.11	$435.70
85	$18,142.15	$12,220.42	$3,864.12	$4,663.45	$439.81

ACTUARIAL METHODS AND ASSUMPTIONS
(Continued)

9. Trend Rates By Plan

	2006	2007	2008	2009	2010	2011
Commercial Man. Care	11.83%	10.00%	9.00%	8.00%	7.00%	6.00%
Commercial Indemnity	27.46%	11.00%	10.00%	9.00%	8.00%	7.00%
Medicare Man. Care	8.99%	8.00%	7.00%	6.00%	6.00%	6.00%
Medicare Indemnity	7.55%	9.00%	8.00%	7.00%	7.00%	7.00%
Dental	7.51%	9.00%	8.00%	7.00%	6.00%	5.00%

10. Medicare Eligibility

Employees: 100% if hired April 1, 1986 or after;
85% if hired pre-April 1, 1986
Spouses: 100%

11. Participation Rates

Current retirees and spouses are assumed to continue the same coverage they have as of the valuation date. No future election of coverage is assumed for those retirees and spouses who currently have not elected coverage.

All (100%) of the active employees eligible for post-employment medical benefits are assumed to elect coverage immediately upon retirement. Of those electing coverage, 85% are assumed to have a covered spouse at retirement. Participants with no or unknown current coverage (e.g. active employees and/or vested inactives who do not currently participate in Leominster's medical plans) are assumed to elect retiree coverage at the same rates as currently covered active employees. Medicare-eligible retirees currently under age 65 are assumed to elect a Medicare plan option at age 65.

12. Expenses

Administrative expenses are included in the per capita medical cost assumption.

PRINCIPAL PLAN PROVISIONS RECOGNIZED IN VALUATION

1.	Eligibility for Benefits	Current retirees, beneficiaries and spouses of Leominster are eligible for medical benefits. Current employees or spouses who retiree with a benefit from the Leominster Retirement Board. Survivors of Leominster employees and retirees are also eligible for medical benefits.
2.	Medical Benefits	Various medical plans offered by Leominster to its own employees.
3.	Life Insurance	Leominster retirees are eligible for a $5,000 life insurance benefit offered by Leominster, provided the retiree makes the required contributions.
4.	Retiree Contributions	Twenty-five percent of projected premium for all participants.