

DRAFT

**REPORT ON THE JANUARY 1, 2006
ACTUARIAL VALUATION OF THE
BELMONT CONTRIBUTORY
RETIREMENT SYSTEM**

 **October 2006**

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SECTION I - OVERVIEW

The Belmont Retirement Board has engaged Buck Consultants, LLC, to prepare an actuarial valuation of the Retirement System as of January 1, 2006. Employee data and asset information as of this date were provided by the Retirement Board.

The valuation was prepared pursuant to Chapter 32 of the Massachusetts General Laws, based upon the acceptance of Section 22D.

The purposes of the valuation are to:

- 1) analyze the current funded position of the Retirement System and determine the level of contributions necessary to assure sound funding;
- 2) update the Section 22D funding schedule currently in place for the Retirement System; and
- 3) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

Section II provides a summary of the principal valuation results. Section VI provides a projection of the Section 22D funding amounts. The assumptions used in this valuation are summarized in Schedule B of this report.

SECTION II - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation as of January 1, 2006, are summarized below along with a comparison with the amounts developed in the previous valuation as of January 1, 2004.

Valuation Date	January 1, 2004	January 1, 2006
Active members:		
Number	421	421
Annual compensation	\$ 16,082,587	\$ 17,493,684
Average age	46.9	46.8
Average service	9.7	9.7
Average compensation	\$ 38,201	\$ 41,553
Accumulated employee contributions	\$ 12,960,944	\$ 14,046,942
Pensioners and beneficiaries:		
Number	345	343
Annual benefit payments ¹	\$ 6,833,056	\$ 7,309,343
State-funded COLA payments	\$ 238,254	\$ 213,652
Net benefit (funded by town)	\$ 6,594,802	\$ 7,095,691
Average net benefit	\$ 19,115	\$ 20,687
Inactive employees		
Number	48	80
Accumulated employee contributions	\$ 374,257	\$ 570,004
Assets for valuation purposes	\$ 53,364,538	\$ 53,736,253
Unfunded actuarial liability	\$ 41,583,284	\$ 47,923,699
Section 22D funding for fiscal 2008	\$ 4,499,973	\$ 4,875,999
Funded percentage	56.2%	52.9%

¹ Benefit amount includes cost-of-living adjustments implemented after July 1, 1981 and prior to July 1, 1998.

2. A projection of Section 22D costs is presented in Section VI.

3. Schedule B of this report outlines the full set of actuarial assumptions and methods employed.
4. The provisions of the System are summarized in Schedule C. The valuation recognizes the adoption of Section 288 of Chapter 194 of the Acts of 1998 concerning the “Option (c) Pop-up” provision for members who retired prior to January 12, 1988. It also reflects the decision of the Retirement Board to recognize longevity payments to Police Officers in the computation of their pension benefits.
5. This valuation reflects liabilities arising under the 2002 and 2003 Early Retirement Incentive (ERI) Programs, which were reflected in the prior valuation as well. The additional liability associated with the 2002 ERI Program, under which retirement was elected only by three Housing Authority employees, is being amortized in level annual installments over fiscal years 2004 through 2018. The additional liability associated with the 2003 ERI Program is being amortized in installments increasing at the rate of 4½% per year over fiscal years 2006 through 2025.

SECTION III - MEMBERSHIP DATA

1. In order to calculate the aggregate liabilities and assets on account of members of the System as of January 1, 2006, data were needed with respect to each active and retired member and beneficiary of the System. This was provided in electronic format by the Retirement Board.
2. From the data, tabulations were made showing, as of January 1, 2006, the number and annual compensation of members classified by age and years of service and the number and annual retirement allowances of retired members and beneficiaries as of January 1, 2006, classified by age. These tables are presented in Schedule D of this report.
3. The following tables show the number of active and retired members of the Retirement System as of January 1, 2006.

TABLE I

THE NUMBER AND ANNUAL COMPENSATION
OF ACTIVE MEMBERS
AS OF JANUARY 1, 2006

GROUP	NUMBER	COMPENSATION
General Employees	326	\$ 11,829,153
Police and Fire	95	\$ 5,664,531
Total	421	\$ 17,493,684

TABLE II
 THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF
 RETIRED MEMBERS AND BENEFICIARIES
 AS OF JANUARY 1, 2006

Group	Number	Annual Retirement Allowance	
		Total Pension	COLA*
Service Retirements	273	\$ 5,904,034	\$ 120,725
Disability Retirements	42	\$ 947,659	\$ 64,420
Beneficiaries	28	\$ 457,650	\$ 28,507
Total	343	\$ 7,309,343	\$ 213,652

* Amount shown under "COLA" is the sum of the adjustments made after July 1, 1981 and before July 1, 1998, which are funded by the State.

In addition, there are 80 inactive members with accumulated employee contributions of \$570,004.

SECTION IV - ASSETS

The asset value utilized in this valuation is based on financial information reported by the Retirement Board. As of January 1, 2006, the reported market value of the System's assets amounted to \$55,139,738. The actuarial value of assets for funding purposes is \$53,736,253. The actuarial value of assets is developed using a smoothing method that, as described in Schedule B of this report, moderates the impact of year-to-year fluctuations in asset values caused by investment gains and losses.

1.	Market value of System assets, January 1, 2005	\$54,071,647
2.	Town and member contributions, net transfers and reimbursements in 2005	5,406,632
3.	Expenses in 2005	(531,301)
4.	Benefits and refunds in 2005	(7,743,738)
5.	Expected interest in 2005	<u>4,332,729</u>
6.	Expected market value of System assets, January 1, 2006	55,535,969
7.	Actual market value of System assets, January 1, 2006	55,139,738
8.	Investment gain (loss) for 2005, (7)-(6)	(396,231)
9.	Investment gain (loss) for 2004	1,980,263
10.	Investment gain (loss) for 2003	4,814,075
11.	Investment gain (loss) for 2002	(6,966,586)
12.	Preliminary actuarial value of assets, January 1, 2006 [(7) - 80% X (8) - 60% X (9) - 40% X (10) - 20% X (11)]	53,736,253
13.	80% of market value of assets, January 1, 2006 = 80% X (7)	44,111,791
14.	120% of market value of assets, January 1, 2006 = 120% X (7)	66,167,686
15.	Actuarial value of assets, January 1, 2006 [(12), but not less than (13) or greater than (14)]	53,736,253

SECTION V - COMMENTS ON VALUATION

Schedule A of this report contains the results of the valuation, which include present and prospective assets and liabilities of the System as of January 1, 2006.

The schedule shows that the System has actuarial liabilities of \$123,738,867, of which \$63,139,882 is for benefits payable on account of present retired members and beneficiaries, \$60,028,981 is for benefits payable on account of present active members, and \$570,004 is for benefits payable on account of present inactive members. Against these liabilities, there are anticipated future contributions by members of \$14,310,111 and future normal contributions of \$7,768,804 payable by the Town. Subtracting these amounts from the total actuarial liabilities leaves \$101,659,952 as the actuarial accrued liability. Against this amount there are assets at actuarial value of \$53,736,253, which when subtracted from the accrued liability leaves \$47,923,699 as the unfunded actuarial accrued liability.

The normal contribution rate is 4.72% of annualized compensation.

SECTION VI - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

Section 22D of MGL Chapter 32 outlines various requirements of a funding schedule that will amortize the unfunded actuarial liability and cover normal costs. The normal cost and unfunded actuarial liability are to be calculated in accordance with the entry age normal actuarial cost method. Amortization of the unfunded actuarial liability is to be based on a schedule that ends no later than the year 2028. The contribution toward amortization of the unfunded actuarial liability may increase at an annual rate of 4½%.

The table on the following page presents a projection of contributions that meet the Section 22D requirements. The contributions were computed assuming that each fiscal year's contributions are to be paid in quarterly installments at the end of each calendar quarter. The normal cost is assumed to increase by 5% annually, while the unfunded accrued liability contribution increases at an annual rate of 4½%. The scheduled contribution for fiscal year 2007 has (except for the amount to be contributed in that fiscal year toward the cost of the 2002 ERI program) been maintained at the level set in the most recent prior funding schedule adopted by the Retirement Board. This schedule incorporates the funding required to provide annual COLAs under Chapter 17 of the Acts of 1997.

*What if Town paid @ 50%
month intervals - 50%
on 7/1/0x + 50%
on 1/1/0x?*

Pension Reform Act – Section 22D
Funding Requirements

Fiscal Year Ending in	Normal Cost	Amortization of the Unfunded Actuarial Liability					Total Town Contribution
		Active	Retired	2002 ERI	2003 ERI	Total Payment	
2007	\$960,597	400,099	2,800,909	24,058	52,389	\$3,277,455	\$4,238,052
2008	946,463	811,591	3,039,140	24,058	54,747	3,929,536	4,875,999
2009	993,786	848,113	3,175,901	24,058	57,210	4,105,282	5,099,068
2010	1,043,475	886,278	3,318,817	24,058	59,785	4,288,938	5,332,413
2011	1,095,649	926,161	3,468,164	24,058	62,475	4,480,858	5,576,507
2012	1,150,431	967,838	3,624,231	24,058	65,287	4,681,414	5,831,845
2013	1,207,953	1,011,391	3,787,321	24,058	68,225	4,890,995	6,098,948
2014	1,268,351	1,056,904	3,957,750	24,058	71,295	5,110,007	6,378,358
2015	1,331,769	1,104,465	4,135,849	24,058	74,503	5,338,875	6,670,644
2016	1,398,357	1,154,166	4,321,962	24,058	77,855	5,578,041	6,976,398
2017	1,468,275	1,206,103	4,516,450	24,058	81,359	5,827,970	7,296,245
2018	1,541,689	1,260,378	4,719,690	24,058	85,020	6,089,146	7,630,835
2019	1,618,773	1,317,095	4,932,076	0	88,846	6,338,017	7,956,790
2020	1,699,712	1,376,364	5,154,019	0	92,844	6,623,227	8,322,939
2021	1,784,698	1,438,300	5,385,950	0	97,021	6,921,271	8,705,969
2022	1,873,933	1,503,024	5,628,318	0	101,387	7,232,729	9,106,662
2023	1,967,630	1,570,660	5,881,592	0	105,949	7,558,201	9,525,831
2024	2,066,012	1,641,340	6,146,264	0	110,717	7,898,321	9,964,333
2025	2,169,313	1,715,200	6,422,846	0	115,699	8,253,745	10,423,058
2026	2,277,779	0	0	0	0	0	2,277,779
2027	2,391,668	0	0	0	0	0	2,391,668
2028	2,511,251	0	0	0	0	0	2,511,251
2029	2,636,814	0	0	0	0	0	2,636,814
2030	2,768,655	0	0	0	0	0	2,768,655
2031	2,907,088	0	0	0	0	0	2,907,088
2032	3,052,442	0	0	0	0	0	3,052,442
2033	3,205,064	0	0	0	0	0	3,205,064
2034	3,365,317	0	0	0	0	0	3,365,317
2035	3,533,583	0	0	0	0	0	3,533,583
2036	3,710,262	0	0	0	0	0	3,710,262
2037	3,895,775	0	0	0	0	0	3,895,775

SCHEDULE A - RESULTS OF THE VALUATION

(Reflecting Chapter 17 COLA Legislation)

1. Present value of prospective benefits payable in respect of:	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Present retired members and beneficiaries	\$60,461,429	\$63,139,882
Present active members	\$54,808,663	\$60,028,981
Present inactive members	<u>\$374,257</u>	<u>\$570,004</u>
Total actuarial liabilities	\$115,644,349	\$123,738,867
2. Present value of future contributions by members	\$13,448,210	\$14,310,111
3. Present value of future normal contributions by the Town	\$7,248,317	\$7,768,804
4. Accrued liability, 1. - 2. - 3.	\$94,947,822	\$101,659,952
5. Actuarial value of assets	\$53,364,538	\$53,736,253
6. Unfunded accrued liability, 4. - 5.	\$41,583,284	\$47,923,699
7. Funded ratio, 5. ÷ 4.	56.2%	52.9%
8. Present value of future normal contributions by the Town, 3.	\$7,248,317	\$7,768,804
9. Present value of future salaries of active members	\$146,655,300	\$164,549,300
10. Normal contribution rate, 8. ÷ 9.	4.94%	4.72%
11. Annualized compensation of active members below maximum retirement age	\$15,976,639	\$17,299,063
12. Normal cost, January 1, 10. x 11.	\$789,246	\$816,516
13. Normal cost, Town, next fiscal year	\$871,289	\$901,393
14. Normal cost, employees, next fiscal year	\$1,369,363	\$1,721,436

-? what does this mean?

part of funding pertains to current year of service
 7% but higher payroll

SCHEDULE B - ACTUARIAL ASSUMPTIONS AND METHODS

GENERAL EMPLOYEES

VALUATION INTEREST RATE: 8.25% per annum, compounded annually, net of administrative expenses.

PRE-RETIREMENT DEMOGRAPHIC ASSUMPTIONS: Representative values of the assumed annual rates of disability, death, service retirement, salary increase and withdrawal are as follows:

Annual Rates of

Age	Disability	Death		Service Retirement		Years of Service	Salary Scale	Years of Service	Rates of Withdrawal
		Male	Female	Male	Female				
25	.02%	.04%	.02%			0	7.00%	0	15.0%
30	.03	.04	.03			1	6.50	1	12.0%
35	.06	.08	.05			2	6.50	2	10.0%
40	.10	.11	.07			3	6.00	3	9.0%
45	.15	.15	.11			4	6.00	4	8.0%
50	.19	.21	.17	1.0%	1.5%	5	5.50	5	7.6%
55	.24	.30	.25	2.0	5.5	6	5.50	10	5.4%
60	.28	.49	.39	12.0	5.0	7	5.00	15	3.3%
62	.30	.59	.47	30.0	15.0	8	5.00	20	2.0%
65	.30	.76	.58	40.0	15.0	9+	4.75	25	1.0%
69		.95	.73	30.0	20.0			30+	0.0%

↓ ? meaning 2 withdrawal
Purpose rates
new withdrawal
27
3/7
4/6
5/4
6/1%
wid? before 5 years of service for General Employees

COST-OF-LIVING ADJUSTMENTS: Retirement benefits are assumed to increase annually by 3%, up to a maximum of \$360.

DEATHS AFTER RETIREMENT: The RP-2000 Healthy Annuitant Table. For the period after disability retirement, the RP-2000 Healthy Annuitant Table set forward 2 years is used.

LOADING OR CONTINGENCY RESERVE: None.

ACTUARIAL COST METHOD: Aggregate entry age normal cost method.

ASSET VALUATION METHOD: For valuation purposes, assets are valued according to the following general formula, provided such value is within a 20% corridor of the market value:

$$VA = MV - .8I_1 - .6I_2 - .4I_3 - .2I_4 \text{ where}$$

VA = Valuation assets.

MV = Market value of assets as of the valuation date.

I_n = Investment gain (loss) during n^{th} year preceding the valuation date.

POLICE AND FIRE

VALUATION INTEREST RATE: 8.25% per annum, compounded annually, net of administrative expenses.

PRE-RETIREMENT DEMOGRAPHIC ASSUMPTIONS: Representative values of the assumed annual rates of disability, death, service retirement, salary scale and withdrawal are as follows:

Annual Rates of

Age	Disability	Death		Service Retirements
		Male	Female	
25	0.20%	.04%	.02%	
30	0.30	.04	.03	
35	0.30	.08	.05	
40	0.30	.11	.07	
45	1.00	.15	.11	1.0%
50	1.25	.21	.17	2.0
55	1.20	.30	.25	15.0
60	0.85	.49	.39	20.0
62	0.75	.59	.47	25.0
65	0.00	.76	.58	100.0
69		.95	.73	

Years of Service	Salary Scale
0	8.00%
1	7.50
2	7.00
3	6.50
4	6.00
5	6.00
6	5.50
7	5.50
8+	5.25

Years of Service	Rates of Withdrawal
0	1.5%
1	1.5
2	1.5
3	1.5
4	1.5
5	1.5
6	1.5
7	1.5
8	1.5
9	1.5
10	1.5
11+	0.0

*3
4.5
6
7.5
9% w/ Police + Fire*

COST-OF-LIVING ADJUSTMENTS: Retirement benefits were assumed to increase annually by 3%, up to a maximum of \$360.

DEATHS AFTER RETIREMENT: The RP-2000 Healthy Annuitant Table. For the period after disability retirement, the RP-2000 Healthy Annuitant Table set forward 2 years is used.

LOADING OR CONTINGENCY RESERVE: None.

ACTUARIAL COST METHOD: Aggregate entry age normal cost method.

ASSET VALUATION METHOD: For contribution basis, assets are valued according to the following general formula, provided such value is within a 20% corridor of the market value:

$$VA = MV - .8I_1 - .6I_2 - .4I_3 - .2I_4 \text{ where}$$

VA = Valuation assets.

MV = Market value of assets as of the valuation date.

I_n = Investment gain (loss) during n^{th} year preceding the valuation date.

SCHEDULE C - SUMMARY OF SYSTEM PROVISIONS

MEMBERSHIP

The Retirement System covers all employees of the Town of Belmont except teachers and elected officials and those employees in service at the time of its establishment who elected not to become members. Eligible employees in the Town who enter service on or after the date the System became operative for their classification may become members of the Retirement System on their own application.

SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS

A summary of the main benefit and contribution provisions of the Retirement System, as interpreted for the valuation, is presented below.

The terms "Group 1" and "Group 4" are used to denote "general employees" and "police and fire", respectively.

BENEFITS

Final Average Salary (FAS)	The average of a member's 3 highest consecutive years' compensation.
Superannuation Retirement	
Eligibility	Age 65 for Group 1; Age 55 for Group 4. Maximum retirement age is 70 for Group 1 and 65 for Group 4.
Allowance	2.5% per year of service times FAS. Veterans receive additional \$15 annually per year of service to a maximum of \$300 annually. Maximum total allowance is 80% of FAS.
Early Retirement	
Eligibility	20 years of service.

Allowance Calculated as a superannuation retirement allowance (including veteran's benefits) except accrual rate is equal to 2.5% reduced by .1% for each year age at retirement is below either 65 for Group 1 or 55 for Group 4.

The minimum allowance after 30 years of service is equal to:

- (1) An annuity which is the actuarial equivalent of member's accumulated deductions; and
- (2) A pension equal to 1/3 of FAS and any veteran's benefits as described under superannuation retirement.

Vested Retirement

Eligibility 10 years of service. For certain involuntary terminations, this is reduced to 6 years.

Allowance A superannuation retirement allowance commencing at age 55 for Group 1 members and age 45 for Group 4 members or later, where the accrual rate is determined by the age of the member at the time the allowance commences.

Ordinary Disability

Eligibility For non-veterans, 10 years of service prior to age 55 for Group 1 members or age 45 for Group 4 members. For veterans, 10 years of service prior to maximum retirement age.

Allowance An immediate allowance equal to the age 55 rate for Group 1 members or age 45 rate for Group 4 members per year of service times FAS.

Veterans receive an allowance equal to:

- (1) An annuity which is the actuarial equivalent of their accumulated deductions; and
- (2) A pension which is the greater of 50% of current salary and the service retirement allowance to which they are eligible, if any.

Accidental Disability

- Eligibility Nonc.
- Allowance An immediate allowance equal to:
- (1) An annuity which is the actuarial equivalent of the member's accumulated deductions; and
 - (2) A pension equal to 72% of current salary; and
 - (3) A supplement equal to \$450 per year per child under 21.

The maximum total allowance is 100% of current salary.

Accidental Death Benefit

- Eligibility None.
- Allowance An immediate allowance equal to:
- (1) A lump sum payment equal to the accumulated deductions at death; and
 - (2) A pension equal to 72% of current salary and payable to the surviving spouse, dependent children, or the dependent parents; and
 - (3) A supplement of \$312 per year per child payable to the spouse or legal guardian until all children reach age 21, unless handicapped.

The maximum total allowance is 100% of current salary.

Death in Active Service

- Eligibility None.
- Allowance An immediate allowance that would have been payable had the member retired and elected the 2/3 joint and survivor option on the day before his death. For death occurring prior to the minimum superannuation retirement age, the age 55 and age 45 accrual rates are used, respectively, for Group 1 and Group 4 members.

For members with at least 2 years of service at death, the surviving spouse receives an additional allowance equal to

the sum of \$960 per year for the first child and \$720 per year for each additional child.

The minimum allowance is \$140 per month. The maximum total allowance is 100% of salary at the date of death.

Normal Form of Benefit	Reduced modified cash refund annuity.
Optional Forms of Benefit	<ul style="list-style-type: none"> (1) Life annuity. (2) Modified cash refund annuity. (3) 66-2/3% joint and survivor allowance with Pop-up.
Return of Contribution	If no other benefit is payable upon termination, the member's accumulated deductions are returned.
Post-Retirement Adjustments	Up to 3% of the annual retirement allowance up to a maximum of \$360 annually.
Member Contributions	Members contribute a percentage of annual regular compensation in accordance with their respective dates of hire, as shown below:

<u>Date of Hire</u>	<u>Rate of Contribution</u>
Prior to January 1, 1975	5%
On or after January 1, 1975	7%
On or after January 1, 1984	8%
On or after July 1, 1996	9%

Members hired on or after January 1, 1979 contribute an additional 2% of compensation in excess of \$30,000.

Longevity Payments to Police Officers	Longevity compensation provided to Police Officers pursuant to collective bargaining agreements is assumed to be included in the compensation upon which retirement benefits are based.
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SCHEDULE D
MEMBERSHIP TABLES

TABLE 1
 THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS
 DISTRIBUTED BY FIFTH AGE AND SERVICE
 AS OF JANUARY 1, 2006

5 yr age brackets

	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40 and over		TOTAL	
	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.
Under 20	143,622	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143,622	6
20-24	794,359	33	36,202	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	830,561	34
25-29	563,402	15	376,669	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	940,071	24
30-34	740,228	20	480,400	9	234,191	5	90,366	2	0	0	0	0	0	0	0	0	0	0	1,545,185	36
35-39	284,464	9	694,034	14	520,168	8	448,571	8	106,028	1	0	0	0	0	0	0	0	0	2,053,265	40
40-44	475,923	16	737,500	20	210,061	3	779,657	13	689,298	12	0	0	0	0	0	0	0	0	2,892,439	64
45-49	652,526	18	852,544	23	192,422	6	343,541	7	557,360	10	411,150	6	0	0	0	0	0	0	3,009,543	70
50-54	404,253	11	343,846	11	296,034	9	280,956	5	332,083	6	349,882	5	744,223	10	128,536	3	0	0	2,879,813	60
55-59	484,756	14	171,921	7	225,141	9	166,636	4	98,163	2	322,068	5	241,953	4	119,358	3	0	0	1,829,996	48
60-64	248,527	5	109,492	2	35,027	1	149,660	4	113,188	3	28,759	1	38,793	1	102,600	1	57,473	1	883,519	19
65-69	42,624	3	50,743	2	32,872	4	37,847	1	73,474	1	149,306	3	0	0	39,242	1	0	0	426,108	15
70 and over	7,156	1	4,607	1	16,533	2	0	0	0	0	0	0	31,266	1	0	0	0	0	59,562	5
TOTAL	4,841,840	151	3,857,958	99	1,762,449	47	2,297,234	44	1,969,594	35	1,261,165	20	1,056,235	16	389,736	8	57,473	1	17,493,684	421

TABLE 2

**THE NUMBER AND ANNUAL PENSIONS OF RETIRED MEMBERS AND BENEFICIARIES
DISTRIBUTED BY AGE AS OF JANUARY 1, 2006**

Age	Service Retirements		Disability Retirements		Beneficiaries	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
Under 20	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	1	8,101
40-44	0	0	0	0	0	0
45-49	0	0	3	81,408	3	18,954
50-54	3	67,599	2	62,952	1	12,829
55-59	19	647,273	9	208,917	1	60,576
60-64	43	1,291,316	6	149,427	3	40,573
65-69	49	1,270,594	5	129,168	4	50,755
70-74	42	982,159	7	152,700	6	168,553
75-79	45	764,910	7	120,055	2	16,854
80-84	41	560,144	1	13,901	4	36,927
85-89	19	219,695	1	14,831	1	17,204
90-94	10	94,678	0	0	0	0
95-99	2	5,666	1	14,300	2	26,324
100 and over	0	0	0	0	0	0
Total	273	5,904,034	42	947,659	28	457,650

“Annual Pension” is the total amount payable annually, including state-funded cost-of-living adjustments implemented after July 1, 1981 and before July 1, 1998.

SCHEDULE E - VALUATION RESULTS BY GROUP

AS OF JANUARY 1, 2006

	Town of Belmont	Housing Authority	Light Department	Water	School	Police & Fire	Total
Active members:							
Number	150	7	24	12	133	95	421
Annual compensation	6,255,069	269,334	1,343,793	586,257	3,374,700	5,664,531	17,493,684
Average age	49.9	45.8	46.6	53.4	46.6	41.8	46.8
Average service	9.6	6.8	13.7	20.8	5.8	13.1	9.7
Average compensation	41,700	38,476	55,991	48,855	25,374	59,627	41,553
Accumulated contributions	4,924,791	164,163	1,181,895	658,477	1,870,559	5,247,057	14,046,942
Pensioners and beneficiaries:							
Number	96	7	30	14	61	135	343
Annual benefit payments	1,580,748	125,212	659,853	254,783	679,392	4,009,355	7,309,343
State funded COLA	42,863	2,760	15,254	14,341	28,334	110,100	213,652
Net payments (funded by Town)	1,537,885	122,452	644,599	240,443	651,057	3,899,255	7,095,691
Average benefit	16,020	17,493	21,487	17,174	10,673	28,883	20,687
Inactive members:							
Number	29	3	3	0	25	20	80
Accumulated contributions	249,525	4,737	9,844	0	118,235	187,663	570,004
Assets (actuarial value)	19,214,019	827,327	4,127,798	1,800,836	10,366,240	17,400,033	53,736,253
Unfunded actuarial liability	17,176,800	935,483	3,911,738	1,577,465	9,080,438	15,241,776	47,923,699
Funding for fiscal:							
2007	1,431,364	91,793	333,462	146,769	777,909	1,456,755	4,238,052
2008	1,743,338	100,633	392,485	160,766	925,425	1,553,352	4,875,999
2009	1,823,480	104,151	410,511	168,159	967,982	1,624,785	5,099,068
2010	1,907,315	107,832	429,365	175,892	1,012,499	1,699,510	5,332,413
2011	1,995,006	111,683	449,088	183,983	1,059,069	1,777,678	5,576,507

Belmont Contributory Retirement System
January 1, 2006

Did EEI get rolled into these figures

How are assets spread
Spread of assets determines unfunded

BELMONT CONTRIBUTORY RETIREMENT SYSTEM

Fiscal Year Ending in	Normal Cost	Amortization of the Unfunded Actuarial Liability					Total Town Contribution
		Active	Retired	2002 ERI	2003 ERI	Total Payment	
2007	\$960,597	400,099	2,800,909	24,058	52,389	\$3,277,455	\$4,238,052
2008	946,463	437,108	3,059,993	24,058	54,747	3,575,906	4,522,369
2009	993,786	467,976	3,276,085	24,058	57,210	3,825,329	4,819,115
2010	1,043,475	501,024	3,507,437	24,058	59,785	4,092,304	5,135,779
2011	1,095,649	536,405	3,755,126	24,058	62,475	4,378,064	5,473,713
2012	1,150,431	574,285	4,020,307	24,058	65,287	4,683,937	5,834,368
2013	1,207,953	614,840	4,304,214	24,058	68,225	5,011,337	6,219,290
2014	1,268,351	642,508	4,497,904	24,058	71,295	5,235,765	6,504,116
2015	1,331,769	671,421	4,700,310	24,058	74,503	5,470,292	6,802,061
2016	1,398,357	701,635	4,911,824	24,058	77,855	5,715,372	7,113,729
2017	1,468,275	733,209	5,132,856	24,058	81,359	5,971,482	7,439,757
2018	1,541,689	766,203	5,363,835	24,058	85,020	6,239,116	7,780,805
2019	1,618,773	800,682	5,605,208	0	88,846	6,494,736	8,113,509
2020	1,699,712	836,713	5,857,442	0	92,844	6,786,999	8,486,711
2021	1,784,698	874,365	6,121,027	0	97,021	7,092,413	8,877,111
2022	1,873,933	913,711	6,396,473	0	101,387	7,411,571	9,285,504
2023	1,967,630	954,828	6,684,314	0	105,949	7,745,091	9,712,721
2024	2,066,012	997,795	6,985,108	0	110,717	8,093,620	10,159,632
2025	2,169,313	1,042,696	7,299,438	0	115,699	8,457,833	10,627,146
2026	2,277,779	0	0	0	0	0	2,277,779
2027	2,391,668	0	0	0	0	0	2,391,668
2028	2,511,251	0	0	0	0	0	2,511,251
2029	2,636,814	0	0	0	0	0	2,636,814
2030	2,768,655	0	0	0	0	0	2,768,655
2031	2,907,088	0	0	0	0	0	2,907,088
2032	3,052,442	0	0	0	0	0	3,052,442
2033	3,205,064	0	0	0	0	0	3,205,064
2034	3,365,317	0	0	0	0	0	3,365,317
2035	3,533,583	0	0	0	0	0	3,533,583
2036	3,710,262	0	0	0	0	0	3,710,262
2037	3,895,775	0	0	0	0	0	3,895,775

ALTERNATIVE 2

SCHEDULE E - VALUATION RESULTS BY GROUP

AS OF JANUARY 1, 2004

3-14-05
Revised - PERAC Approved

	Town of Belmont	Housing Authority	Light Department	Water	School	Police & Fire	Total
Active members:							
Number	149	7	23	13	136	100	421
Annual compensation	5,428,828	250,958	1,201,509	567,082	3,005,654	5,628,556	16,082,587
Average age	47.9	50.7	45.9	50.5	46.6	41.8	46.9
Average service	9.5	5.6	16.0	18.1	4.9	13.7	9.7
Average compensation	36,435	35,851	52,240	43,622	22,100	56,286	38,201
Accumulated contributions	4,546,783	128,292	1,178,534	585,744	1,448,542	5,073,049	12,960,944
Pensioners and beneficiaries:							
Number	97	8	31	14	63	132	345
Annual benefit payments	1,649,303	109,391	514,908	245,697	642,163	3,671,594	6,833,056
State funded COLA	52,782	2,760	16,963	14,341	30,893	120,515	238,254
Net payments (funded by Town)	1,596,521	106,631	497,945	231,356	611,270	3,551,079	6,594,802
Average benefit	16,459	13,329	16,063	16,525	9,703	26,902	19,115
Inactive members:							
Number	7	0	1	1	36	3	48
Accumulated contributions	111,272	0	36,913	15,548	160,470	50,054	374,257
Assets (actuarial value)	18,013,699	832,718	3,986,795	1,881,667	9,973,230	18,676,429	53,364,538
Unfunded actuarial liability	14,070,009	886,691	3,313,900	1,436,777	7,615,220	14,260,687	41,583,284
Funding for fiscal:							
2005	1,285,277	81,215	340,419	148,182	544,248	1,289,204	3,688,545
2006	1,336,643	87,302	311,305	137,072	726,510	1,360,503	3,959,335
2007	1,431,363	91,793	333,462	146,769	777,909	1,456,755	4,238,052
2008	1,520,360	96,011	354,255	155,885	826,225	1,547,236	4,499,973
2009	1,590,479	99,327	370,574	163,078	864,348	1,618,625	4,706,432

Valuation Results by Group

Fiscal Year	Budget Impacted				Rate Impacted			Total
	Town of Belmont	School	Police & Fire	Budgetary Impact	Water	Light Department	Outside Housing Authority	
Base 2007	1,431,364	777,909	1,456,755	3,666,028	146,769	333,462	91,793	4,238,052
2004 Est 2008	1,520,360	826,225	1,547,236	3,893,821	155,885	354,255	96,011	4,499,972
New Schedule - % Inc	15%	12%	0%	8%	3%	11%	5%	8%
2006 Est 2008	1,743,338	925,425	1,553,352	4,222,115	160,766	392,485	100,633	4,875,999
2009	1,823,480	967,982	1,624,785	4,416,247	168,159	410,511	104,151	5,099,068
2010	1,907,315	1,012,499	1,699,510	4,619,324	175,892	429,365	107,832	5,332,413
2011	1,995,006	1,059,069	1,777,678	4,831,753	183,983	449,088	111,683	5,576,507
<u>Real Increase</u>								
Base 2007	1,431,364	777,909	1,456,755	3,666,028	146,769	333,462	91,793	4,238,052
2006 Est 2008	1,743,338	925,425	1,553,352	4,222,115	160,766	392,485	100,633	4,875,999
New Schedule - % Inc	22%	19%	7%	15%	10%	18%	10%	15%