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CITY OF BLOOMINGTON
FIREFIGHTERS' PENSION FUND

ACTUARIAL VALUATION
AS OF MAY 1, 2012 FOR THE
FISCAL YEAR ENDING APRIL 30, 2013

November 7, 2012

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ACTUARIAL STATEMENT

Tepfer Consulting Group, Ltd. was retained by the **City of Bloomington and City of Bloomington Firefighters' Pension Plan** to perform an independent actuarial valuation for the Firefighters' Pension Fund. This valuation is permitted under 40 ILCS 5/22, Section 503.2.

The actuarial valuation was performed for the year ended April 30, 2013 and indicates a **statutorily required contribution in accordance with 40 ILCS 5/4, Section 118 of $2,908,472 or 37.82% of member payroll, a recommended minimum contribution of $4,015,969 or 52.22% of payroll, and an Annual Required Contribution in accordance with paragraph 36f of Statement No. 25 of the Governmental Accounting Standards Board of $3,688,461 or 47.96% of payroll.** These contributions are net of contributions made by active member firefighters during the fiscal year.

The results shown in this report have been calculated under the supervision of a qualified Actuary as defined in appropriate State statutes. All results are based upon demographic data submitted by the Firefighters' Pension Fund, financial data submitted by the Firefighters' Pension Fund, applications of actuarial assumptions, and generally accepted actuarial methods.

In our opinion, all calculations and procedures are in conformity with generally accepted actuarial principles and practices; and the results presented comply with the requirements of the applicable State statute, Actuarial Standards Board, or Statements of Governmental Accounting Standards, as applicable.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the plan and future expectations, and represent a reasonable and adequate approach to the financing of the retirement program. The costs, actuarial liabilities and other information presented in this report, in our opinion, fully and fairly disclose the actuarial position of the plan.

I, Arthur H. Tepfer, am an Enrolled Actuary in good standing under the Employee Retirement Income Security Act of 1974. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. I certify that the results presented in this report are accurate and correct to the best of my knowledge.

TCG PUBLIC CONSULTING, LTD.

Arthur H. Tepfer, A.S.A., M.A.A.A.
Enrolled Actuary #11-02352

November 7, 2012

VALUATION OBJECTIVES

The **City of Bloomington Firefighters' Pension Plan** provides benefits to members when they retire, die, become disabled or terminate employment. As with any plan providing these types of benefits, an appropriate budgeting pattern must be established to enable appropriate funds to be accumulated to meet all payments when due. The actual cost of the plan can best be expressed in the following simplistic manner:

ACTUAL COST EQUALS Benefits Paid

Plus

Expenses Paid

Less

Investment Income Earned

If the actual cost is incurred on a "pay as you go" basis, then the future generations of members will be paying for the benefits of current plan participants. Proper financial planning calls for budgeting the actual cost of the plan over the working lifetime of current plan membership in order to establish an equitable allocation. An actuarial valuation is the procedure used to determine an appropriate amount to be contributed to the pension plan each year in order to attain this equity.

An actuarial valuation is an estimate at a particular point in time of the predicted incidence of the future benefit costs. Since the actual cost of the plan is essentially unknown, pre-funding (budgeting for future benefit costs) requires certain assumptions about future events. Assumptions are made for such things as salary increases, terminations of participants, disablement of participants, death of participants and anticipated investment earnings. These assumptions although not affecting the actual costs of the plan will affect the incidence of predicted future costs. For proper funding, it is required that the Actuary select assumptions which are appropriate in light of the economic, demographic, and legislative environment as they relate to the pension program. The assumptions we have made concerning these future events are described more fully in Appendix 2 of this report. Based on these assumptions, a projection of future benefits was made and a current contribution level sufficient to provide the anticipated benefit payments was determined through the use of an actuarial cost method.

Selection of the Actuarial Cost Method

An actuarial cost method, sometimes called a "funding method", therefore, is essentially an approach to budgeting the estimated future costs. There are many actuarial cost methods which are available to the actuary and each method operates differently. However, all funding methods accomplish the same objective—to assign to each fiscal year of the employer the portion assumed to have accrued in that year. The portion of the actuarial value of benefits assigned to a particular year in respect of an individual participant or the fund as a whole is called the ***normal cost.*** All funding methods are described by how the normal cost is calculated.

The actuarial cost method prescribed by the State statutes to determine the ***statutorily minimum required contribution*** for periods on or after January 1, 2011 is the Projected Unit Credit Cost Method. Under this actuarial cost method, the ongoing cost as a percentage of total payroll will increase. In this method, the normal cost is determined by first calculating the projected dollar amount of each participant's accumulated benefit under the plan as of both the first day of the fiscal year and as of the last day of the fiscal year and then determining the difference between these two amounts. The second step in deriving the normal cost for a given participant is to multiply the dollar amount of this difference by the actuarial present value of $1 of benefit.

The actuarial cost method selected by our firm to determine the ***recommended plan contribution*** is the Entry Age Normal Cost Method. Under this actuarial cost method, ideally, the ongoing cost as a percentage of total payroll should remain fairly stable. In this method, the normal cost is determined by assuming each participant covered by the plan entered the plan under the same conditions that will apply to future plan entrants. The annual normal cost assigned to each year of an employee's career is calculated as a level percentage of the employees assumed earnings each year. These normal costs accumulate to the present value of the employee's benefit at retirement age.

VALUATION OBJECTIVES

Under both the Entry Age Normal Cost Method and the Projected Unit Credit Cost Method, the total funding of projected benefit costs is allocated between an ***unfunded liability***, representing past benefit history, and future normal costs. This allocation is based on the assumption that the municipality will pay the normal cost for each plan year on a regular basis. It should be noted that although the term "unfunded liability" is applied to both funding methods, the resulting amount is different because of the method of calculation. Another feature of these methods is that only the unfunded liability is affected by the experience of the plan, and therefore any adjustments are made in the future amortization payments.

In addition to the methodology changes described above, P.A. 96-1495 also addressed the valuation of pension fund assets—the second component in the determination of the unfunded liability. The statute now provides that the actuarial value of a pension fund's assets be set equal to the market value of the assets on March 30, 2011 and that, in determining the actuarial value of assets after that date, any actuarial gains or losses from investment returns incurred in a fiscal year be recognized in equal amounts over the 5-year period following that fiscal year.

The actuarial valuation process is usually repeated each year and is to a certain extent self-correcting. As part of these actuarial cost methods, any deviation of actual experience from the chosen actuarial assumptions will be reflected in future contributions. A complete description of these actuarial cost methods is explained in Appendix 4 of this report.

Despite the statutory language which requires an application of the Projected Unit Credit method, we feel that funding under this method as a *level percentage of payroll* severely undermines the benefit security of the retirement system and transfers the payment for currently earned pensions to future generations of taxpayers. For these reasons, our valuation report also presents a recommended minimum contribution that will operate to maintain the fundamental fiscal soundness of the retirement program, although a statutorily required contribution has also been calculated. The calculation of the recommended minimum contribution is based upon an amortization payment of 90% of any unfunded accrued liabilities as a *level dollar amount* over 30 years from January 1, 2011, the effective date of P.A. 96-1495. The calculation of the statutorily required contribution is based upon an amortization payment of 90% of any unfunded accrued liabilities as a *"level percentage of payroll"* over 30 years from January 1, 2011, the effective date of P.A. 96-1495.

Although, I do not agree with the statutorily required level percentage of payroll methodology of determining the amortization of the unfunded accrued liability, I would be remiss if I did not advise my funds as to a "statutorily" acceptable calculation under the State law.

Effective for periods beginning after June 15, 1996, the Governmental Accounting Standards Board has issued Statement No. 25 "Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans". This Statement establishes a financial reporting framework for defined benefit pension plans that distinguishes between two categories of information: (a) current financial information about plan assets and financial activities and (b) actuarially determined information, from a long-term perspective, about the funded status of the plan and the progress being made in accumulating sufficient assets to pay benefits when due. The calculation of the Annual Required Contribution (ARC) is described in paragraph 36f of the Statement and is based upon an amortization payment of any unfunded accrued liabilities as either a level dollar amount or a level percentage of total payroll over a maximum of 40 years from the effective date of the Statement. Any significant increase in the total unfunded actuarial liability resulting from a change in actuarial methodology should be amortized over a period not less than 10 years.

Actuarial experience since the last actuarial valuation

As part of the actuarial valuation process, it is helpful to examine the actual experience of the fund as compared to the experience which is expected by the actuarial assumptions. The measurement of any deviations of actual to expected experience is commonly referred to as a "Gain and Loss Analysis". In performing this analysis, the actuary analyzes each actuarial assumption used in the valuation process. It is highly unlikely that actual experience will follow expected experience on a year-by-year basis. It is hoped that over the long term, if the actuarial assumptions are "reasonable", the total gains and losses will offset each other.

A "gain and loss analysis' is a useful tool to examine whether the actuarial assumptions used to determine the municipal tax levy are suitable. Care must be taken in placing too much credibility in a short-term analysis as the assumptions are more appropriately measured over the long term. Nonetheless, an annual evaluation of the actuarial assumptions will assist in identifying trends which, if unnoticed, can lead to inappropriate conclusions. When these trends are recognized, it is the actuary's responsibility to modify one or more of the assumptions to better anticipate future experience.

VALUATION OBJECTIVES

Some assumptions are easier to measure than others. In small plans, credible analysis can generally be made regarding the economic (financial) assumptions. These primarily include investment and salary increase assumptions. Unfortunately, it is often impossible to establish credible long term analysis of demographic assumptions (rates of termination, disability, retirement and mortality). Therefore, in choosing demographic assumptions, the actuary generally relies upon standardized tabular assumptions modified only by fund-specific characteristics.

The actuarial gain and loss analysis for the current year is presented in Exhibit 3-C and 3-D of the report. Exhibit 3-C shows the impact of the actuarial gains or losses on the recommended minimum contribution through a reconciliation of this contribution from the end of the prior valuation year to the end of the current valuation year. Exhibit 3-D derives the actuarial gain or loss in total as well as separating the individual financial and demographic components.

The overall experience gain (loss) for the year was $1,772,724 or 2.23% of the accrued liability at the beginning of the plan year. The dollar amount for the plan's recommended minimum contribution is 102.31% of the prior year's contribution. When measured as a percentage of payroll, the contribution level has changed from 51.99% to 52.22%.

Thirty-year Projection of Liabilities

The final section of our report illustrates projected payments from the Trust Fund for a 30-year period commencing with the valuation date. These projections are based upon the actuarial assumptions selected for the fund concerning death, disability and retirement actually occurring. Care should be taken in interpreting or relying on these results-- particularly for Funds with fewer than 200 participants. The credibility of this type of projection is rarely realized beyond 10 years. Exhibit 5D presents this projection.

RESULTS OF VALUATION

The following exhibits present the results of our actuarial valuation of the **City of Bloomington Firefighters' Pension Plan** for the fiscal year May 1, 2012 through April 30, 2013.

Exhibit 1 indicates that the recommended minimum contribution, calculated using the Entry Age Normal Cost method (EANC), from the City is $4,015,969 or 52.22% of total participating payroll. **Under the Entry Age Normal actuarial cost method selected, this percentage of payroll should remain reasonably level over the lifetime of the plan.**

Exhibit 1 also indicates that the statutory minimum contribution, calculated using the Projected Unit Credit method (PUC), from the City is $2,908,472 or 37.82% of total participating payroll. **Under the Projected Unit Credit actuarial cost method selected, this percentage of payroll should increase over the lifetime of the plan.**

Exhibits 2 and 3 provide specific information used to develop the recommended minimum and statutorily required City contribution and GASB Annual Required Contribution (ARC).. The Annual Required Contribution as of May 1, 2012 has been determined under the Governmental Accounting Standards Board Statement No. 25 and is required disclosure for the fiscal year ending April 30, 2013. The Entry Age Normal Cost and the Actuarial Accrued Liability were determined using the Entry Age Normal Cost Actuarial Cost Method.

The Entry Age Normal Cost has been determined as a level percentage of projected payroll of the active members of the group. The amortization method for the Unfunded Actuarial Accrued Liability is determined as a level percentage of payroll amount over a closed Amortization Period as permitted in Governmental Accounting Standards Board Statement No. 25.

Contribution amounts presented in this report have not been adjusted for interest to the date of payment. All values were determined on the basis of the actuarial assumptions and methods as more fully described in Appendix1 of this report.

Exhibit 4 presents a brief description of the demographic characteristics of the current member group.

Exhibit 5 shows information relating to the pension assets.

GENERAL VALUATION RESULTS FOR FISCAL YEAR MAY 1, 2012 THROUGH APRIL 30, 2013

Recommended Minimum Contribution

1.	Entry Age Normal Cost:	$ 1,978,598
2.	Unfunded Actuarial Accrued Liability (or Surplus):	38,641,845
3.	Actuarial Value of Assets:	40,890,039
4.	Annual Salaries of Active Firefighters:	7,359,892
5.	Recommended Minimum Contribution from the City:	4,015,969
	Contribution Percentage:	52.22%*

Statutory Minimum Contribution

1.	Projected Unit Credit Normal Cost:	$ 2,126,736
2.	Unfunded Actuarial Accrued Liability (or Surplus):	32,177,276
3.	Actuarial Value of Assets:	40,890,039
4.	Annual Salaries of Active Firefighters:	7,359,892
5.	Statutory Minimum Contribution from the City:	2,908,472
	Contribution Percentage:	37.82%*

* Projected for the fiscal year ending April 30, 2013.

SUMMARY OF SPECIFIC VALUATION RESULTS

		Number	Actuarial Present Value of Projected Benefits	Entry Age Normal Cost	Projected Unit Credit Normal Cost
1.	Active Firefighters:	103			
	Retirement Pension:		$39,288,745	$1,312,264	$1,459,669
	Survivors Pension:		1,967,138	100,620	98,492
	Disability Pension:		11,169,703	527,179	537,449
	Withdrawal Pension:		495,839	38,535	31,126
	TOTAL	103	$52,921,425	$1,978,598	$2,126,736
2.	Inactive Firefighters and Survivors:				
	Normal Retirees:	54	$37,149,199		
	Widows (Survivors):	16	2,371,478		
	Children (Survivors):	0	0		
	Disabled Retirees:	15	6,685,239		
	Deferred Vested:	1	107,869		
	Terminated/Separated:	7	33,792		
TOTAL		93	$46,347,577		

SUMMARY OF SPECIFIC VALUATION RESULTS
(Continued)

		Entry Age Normal (EAN)	Projected Unit Credit (PUC)
3.	Total Actuarial Present Value of Projected Benefits:	$99,269,002	N/A
4.	Actuarial Present Value of Future Normal Costs:	19,737,118	N/A
5.	Actuarial Accrued Liability: [(3) - (4)]	79,531,884	73,067,315
6.	Actuarial Value of Assets:	40,890,039	40,890,039
7.	Unfunded Actuarial Accrued Liability (or Surplus): [(5) - (6)]	38,641,845	32,177,276
8.	Funded Ratio Percentage: [(6) ÷ (5)] x 100	51.41%	55.96%

HISTORY OF FUNDED PERCENTAGES

For the Year beginning May 1	Valuation Assets	EAN Accrued Liabilities	EAN Funded Percentage	PUC Accrued Liabilities	PUC Funded Percentage
2012	$40,890,039	$79,531,884	51.41%	$73,067,315	55.96%
2011	39,770,280	77,411,228	51.38%	72,975,169	54.50%
2010	36,832,670	73,891,946	49.85%	N/A	N/A
2009	34,880,656	70,089,350	49.77%	N/A	N/A
2008	39,077,302	64,675,814	60.42%	N/A	N/A
2007	36,720,534	59,245,402	61.98%	N/A	N/A
2006	34,408,977	61,968,657	55.50%	N/A	N/A
2005	31,579,001	52,474,118	60.20%	N/A	N/A
2004	30,547,302	49,675,449	61.50%	N/A	N/A
2003	28,280,545	44,545,200	63.50%	N/A	N/A
2002	28,367,668	42,134,932	67.30%	N/A	N/A

DEVELOPMENT OF RECOMMENDED MINIMUM CITY CONTRIBUTION

		Fiscal Year May 1, 2012 through April 30, 2013
1.	Entry Age Normal Cost:	$1,978,598
	Interest to April 30, 2013:	143,448
	(a) Total	$2,122,046
	(b) 17½% of Projected Payroll	1,287,981
	(c) Minimum Cost Payable, greater of (a) and (b):	$2,122,046
2.	Recommended Minimum Payment to Amortize 90 % of the Entry Age Normal Unfunded Accrued Liability as a level dollar amount over 28.00000 Years from May 1, 2012 with interest to April 30, 2013 :	2,589,801
3.	Credit for Surplus:	0
4.	Initial Recommended Minimum Contribution for Fiscal Year 2013: [(1) + (2) + (3)]	4,711,847
5.	Statutory Minimum Contribution (Exhibit 3B line 4)	3,604,350
6.	Total Recommended Minimum Contribution for Fiscal Year 2013: [Greater of Line 4 and Line 5]	4,711,847
7.	Active Member Contributions (9.455% of Salaries):	695,878
8.	Net Recommended Minimum City Contribution: [(6) - (7)]	4,015,969

DEVELOPMENT OF STATUTORILY REQUIRED CITY CONTRIBUTION
(NOTE THAT THIS CONTRIBUTION CALCULATION IS NOT RECOMMENDED)

		Fiscal Year May 1, 2012 through April 30, 2013
1.	Projected Unit Credit Normal Cost:	$2,126,736
	Interest to April 30, 2013:	154,188
	(a) Total	$2,280,924
	(b) 17½% of Projected Payroll	1,287,981
	(c) Minimum Cost Payable, greater of (a) and (b):	$2,280,924
2.	Minimum Payment to Amortize 90% of the Projected Unit Credit Unfunded Accrued Liability as a level percentage of payroll over 28.00000 Years from May 1, 2012 with interest to April 30, 2013:	1,323,426
3.	Credit for Surplus:	0
4.	Total Statutorily Required Contribution for Fiscal Year April 30, 2013: [(1) + (2) + (3)]	3,604,350
5.	Active Member Contributions (9.455% of Salaries):	695,878
6.	Statutorily Required City Contribution: [(4) - (5)]	2,908,472

RECONCILIATION OF THE CHANGE IN THE RECOMMENDED MINIMUM CITY CONTRIBUTION

1.	Recommended Minimum Contribution for Year ending April 30, 2012:	$3,925,208
2.	Increase in Normal Cost and Amortization Payment due to anticipated pay changes:	184,508
3.	Increase/(Decrease) in Normal Cost resulting from actual pay changes:	(16,755)
4.	Effect of Asset Smoothing:	(12,103)
5.	Increase/(Decrease) resulting from changes in assumptions:	74,909
6.	Increase/(Decrease) resulting from other demographic and financial sources (retirements, deaths, new entrants, salary changes, etc.):	(1,247,295)
7.	Recommended Minimum Contribution for Year ending April 30, 2013:	$4,015,969

GASB STATEMENT NO. 25 DISCLOSURE INFORMATION

DEVELOPMENT OF THE ANNUAL REQUIRED CONTRIBUTION OF THE MUNICIPALITY

		Fiscal Year May 1, 2012 through April 30, 2013
1.	Entry Age Normal Cost	$1,978,598
2.	Actuarial Accrued Liability	79,531,884
3.	Actuarial Value of Assets*	40,890,039
4.	Unfunded Actuarial Accrued Liability	38,641,845
5.	Payment to Amortize Unfunded Actuarial Accrued Liability Over 40 Years from the Effective Date of Application of GASB 25 (21 years remaining)	2,405,741
6.	Total Annual Required Contribution for Fiscal Year April 30, 2013: [(1) + (5)]	4,384,339
7.	Active Member Contributions (9.455% of Salaries):	695,878
8.	**Annual Required Contribution (ARC) payable at the beginning of the current fiscal year: [(6) - (7)]**	**3,688,461**

*Excluding Contributions Receivable

DERIVATION OF EXPERIENCE GAIN(LOSS) AND COST METHOD CHANGE AS OF MAY 1, 2012

1.	EANC Unfunded Actuarial Accrued Liability at May 1, 2011:	$37,640,948
2.	Entry Age Normal Cost Due at May 1, 2011:	1,901,172
3.	Interest on (1) and (2) to May 1, 2012 (at 7.50% per year):	2,965,659
4.	Contributions made for the prior year with interest to May 1, 2012:	4,280,421
5.	Expected EANC Unfunded Actuarial Accrued Liability at May 1, 2012 Before Assumption Changes [(1) + (2) + (3) - (4)]:	38,227,358
6.	Change in EANC Unfunded Actuarial Accrued Liability due to Assumptions Change at May 1, 2012:	2,187,211
7.	Expected Unfunded Actuarial Accrued Liability at May 1, 2012 [(5) + (6)]:	40,414,569
8.	Actual EANC Unfunded Actuarial Accrued Liability at May 1, 2012:	38,641,845
9.	Gain (Loss) for the prior Plan Year [(7) – (8)]:	**$1,772,724**

The experience gain (loss) reported above is the net result of the following:

1.		FINANCIAL SOURCES	
	a)	Investment experience (based upon market value of assets):	$ (2,993,088)
	b)	Contribution experience:	(493,637)
	c)	Benefit Payments experience:	(98,076)
	d)	Salary increases (greater)/lower than expected:	113,402
		Total from Financial Sources:	(3,471,399)
2.		DEMOGRAPHIC SOURCES	
		Mortality, retirement, disability, termination, etc.:	4,890,740
3.		ACTUARIAL ADJUSTMENTS	
		Market value adjustment for asset smoothing, including expenses	353,383
4.		GAIN (LOSS) ALL SOURCES	
		Total Gain (Loss) for the prior Plan Year [(1) + (2) + (3)]	$1,772,724

SUMMARY OF DEMOGRAPHIC INFORMATION AS OF MAY 1, 2012

	Number	Projected Annual Salaries (Fiscal Year 2013)
Active Firefighters:	103	$7,359,892

	Number	Total Monthly Benefits
Normal Retirees:	54	$243,306
Survivors (Widows):	16	32,784
Survivors (Children):	0	0
Disabled Retirees:	15	46,272
Deferred Vested:	1	0
Terminated/Separated:	7	33,792 *

* Return of Contributions

The actuarial valuation was performed as of May 1, 2012 to determine contribution requirements for fiscal year 2013.

AGE AND SERVICE DISTRIBUTION

Attained Age	COMPLETED YEARS OF SERVICE											Average Salaries
	0-1	2-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total	
15-19											0	-
20-24	3										3	51,842
25-29	1	5	1								7	59,659
30-34	3	9	5	1							18	62,887
35-39		4	6	14							24	67,380
40-44		2	4	6	2	3					17	75,957
45-49			2	4	5	9	1				21	79,469
50-54				1	2	6	1				10	79,427
55-59						2	1				3	94,414
60-64											0	-
65+											0	-
TOTAL	7	20	18	26	9	20	3	0	0	0	103	71,455

Age = 39.87 Years

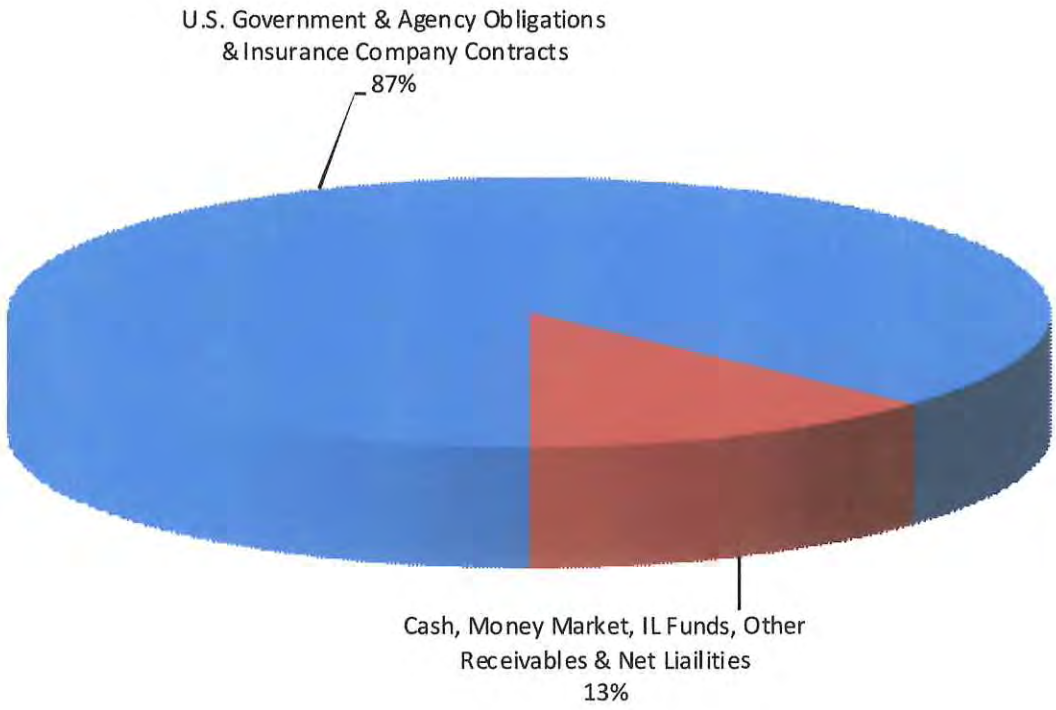
Service = 11.99 Years

ASSET INFORMATION

Cash, Money Market, IL Funds	$5,106,169
Certificates of Deposit	0
State, Local and Corporate Obligations	0
U.S. Government and Agency Obligations	10,926
Insurance Company Contracts	33,922,882
Pooled Investment Accounts	0
Mutual Funds	0
Common & Preferred Stock	0
Taxes Receivable	0
Accrued Interest	0
Other Receivables	23,287
Net Liabilities	1,284
Net Present Assets at Market Value	$39,061,980

The chart on the following page shows a percentage of invested assets.

ASSET INFORMATION



DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

1.	Market Value of Assets, May 1, 2011**			$ 38,295,604
2.	Actual Income and Disbursements in prior year weighted for timing			
	Item	Amount	Timing	Weight for Amount / Weighted Amount
	Contributions Received During 2011-2012	4,138,171	50.00%	2,069,086
	Miscellaneous Revenue	0	50.00%	0
	Benefit Payments and Expenses Made During 2011-2012	3,965,371	(50.00)%	(1,982,686)
	Total			86,400
3.	Market Value of assets adjusted for actual income disbursements [(1) + 2(d)]			38,382,004
4.	Assumed rate of return on plan assets for the year			7.50%
5.	Expected return on assets [(3) x (4)]			2,878,650
6.	Market Value of Assets, May 1, 2011			38,295,604
7.	Income (less investment income) for prior year			4,138,171
8.	Disbursements paid in prior year			3,965,371
9.	Market Value of Assets, May 1, 2012			$39,061,980
10.	Actual Return [(9) + (8) – (7) – (6)]			593,576
11.	Investment Gain/(Loss) for Prior Year [(10) – (5)]			(2,285,074)

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
(Continued)

12. Market Value of Assets, May 1, 2012: $39,061,980

13. Deferred investment gains and (losses) for last 4 years:

	Plan Year Beginning	Gain/(Loss)	Percent Deferred	Deferred Amount
a)	2012**	$ (2,285,074)	80%	$ (1,828,059)
b	2011	$ 0	60%	$ 0
c)	2010	$ 0	40%	$ 0
d)	2009	$ 0	20%	$ 0
e)	Total	$ (2,285,074)		$ (1,828,059)

14. Actuarial value of plan assets for funding,, May 1, 2012: Item (12) less item 13(e): $ 40,890,039

15. Taxes receivable: 0

16. Actuarial value of plan assets for GASB reporting May 1, 2012 item (14) less item (15)*: $ 40,890,039

Notes: * excluding taxes receivable

* *The calculated value is determined by adjusting the market value of assets to reflect investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last five years at the rate of 20% per year. For the actuarial value of plan assets as of March 31, 2011, the actuarial value of assets was set to the market value of assets on the prior valuation date..

ANALYSIS OF INVESTMENT RETURN

Fiscal Year Ending April 30	Annual Rate of Return
2012	1.29%
2011	11.27
2010	20.02
2009	-18.21
2008	3.13
2007	10.33
2006	9.00
2005	4.15
2004	8.82
2003	0.14
Composite	
2003-2012	4.53%

THIRTY - YEAR PROJECTION OF PAYMENTS

	Payouts from Active Group Upon					Payouts from		Total
	Termination		Death	Retirement	Disability	Retired Group	Deferred Pensioners	
Year	Lump Sum	Deferred Pension						
2012	6,618	0	21,803	74,380	39,955	3,867,014	42,573	4,052,343
2013	6,368	0	33,943	158,865	80,735	3,853,481	8,925	4,142,317
2014	4,714	0	34,609	273,122	126,318	3,826,906	9,058	4,274,727
2015	3,699	0	48,106	417,055	178,065	3,794,864	9,180	4,450,969
2016	2,059	0	58,134	555,490	233,173	3,756,925	9,281	4,615,062
2017	2,287	0	71,389	737,155	291,415	3,712,909	9,364	4,824,519
2018	1,129	0	82,465	939,119	353,762	3,670,543	9,427	5,056,445
2019	0	0	97,037	1,169,202	416,943	3,614,088	9,468	5,306,738
2020	0	0	110,621	1,373,243	481,119	3,550,959	9,482	5,525,424
2021	0	0	124,941	1,560,765	546,993	3,481,100	9,466	5,723,265
2022	0	0	138,911	1,802,902	615,825	3,404,204	9,418	5,971,260
2023	0	0	152,198	2,071,924	687,840	3,320,923	9,332	6,242,217
2024	0	0	167,313	2,337,989	760,139	3,231,284	9,204	6,505,929
2025	0	0	180,076	2,605,893	831,691	3,135,310	9,032	6,762,002
2026	0	0	194,507	2,925,971	904,348	3,033,177	8,813	7,066,816
2027	0	0	205,883	3,242,262	980,544	2,925,171	8,545	7,362,405
2028	0	0	219,501	3,532,618	1,052,176	2,811,226	8,228	7,623,749
2029	0	0	229,177	3,852,010	1,124,760	2,691,426	7,861	7,905,234
2030	0	0	241,237	4,197,890	1,197,242	2,565,770	7,445	8,209,584
2031	0	0	249,159	4,532,697	1,263,908	2,434,289	6,978	8,487,031
2032	0	0	260,025	4,852,098	1,337,705	2,297,279	6,464	8,753,571
2033	0	0	265,910	5,161,037	1,404,121	2,179,933	5,911	9,016,912
2034	0	0	274,741	5,434,435	1,464,616	2,033,899	5,329	9,213,020
2035	0	0	277,960	5,703,392	1,522,602	1,884,312	4,729	9,392,995
2036	0	0	284,564	5,974,157	1,584,846	1,732,136	4,123	9,579,826
2037	0	0	285,282	6,227,334	1,630,290	1,578,417	3,525	9,724,848
2038	0	0	289,721	6,468,085	1,671,704	1,424,742	2,947	9,857,199
2039	0	0	284,713	6,650,504	1,711,657	1,272,732	2,403	9,922,009
2040	0	0	286,092	6,801,870	1,745,647	1,124,226	1,908	9,959,743
2041	0	0	280,162	6,919,171	1,768,015	981,161	1,474	9,949,983

ACTUARIAL ASSUMPTIONS

(Economic)

Investment Return
7.25% per annum, compounded annually (net of expenses).

Salary Increases
Representative values of assumed salary increases are as follows:

Age	Increase %
25	4.8611
30	2.9848
35	2.0341
40	1.5239
45	1.3083
50	1.1846
55	1.1220

An additional inflation allowance of 3.00% per year is added to the above.

Payroll Growth
It was assumed that payroll will grow 4.50% per year.

Actuarial Asset Basis
The Pension Fund previously used an actuarial value of assets for both government accounting and funding purposes. Starting with the actuarial valuation as of May 1, 2012, the actuarial value of assets recognizes future gains and losses based on a 5-year smoothed market method as prescribed by Statute.

In a 5-year smoothed market method, the current market value of assets is reduced (increased) for the current year and each of three succeeding years, by a portion of the gain/(loss) in market value during the prior year. Such gain/(loss) is determined as the excess/(deficit) of the current market value of assets over the market value of assets as of the prior year, increased to reflect interest at the actuarial rate and adjusted to reflect contributions and benefit payments during the prior year. The portion of such gain/(loss) by which the current market value of assets is reduced (increased) shall be 80% in the current year, 60% in the first succeeding year. 40% in the second succeeding year and 20% in the third succeeding year.

In the first year of application of this statutory smoothing method, the actuarial value of assets on May 1, 2011 was replaced by the market value of assets as of the same date

Additionally, in accordance with government accounting standards, the actuarial value of assets is adjusted to remove any contributions receivable on the reporting date.

Expenses
None assumed.

(Demographic)

Mortality

Active Lives

RP-2000 Combined Healthy Mortality Table (male) with blue collar adjustment and with a 200% load for participants under age 50 and 125% for participants age 50 and over. Five percent (5%) of deaths amongst active firefighters are assumed to be in the performance of their duty.

Non-Active Lives

RP-2000 Combined Healthy Mortality Table (male) with blue collar adjustment and with a 200% load for participants under age 50 and 125% for participants age 50 and over.

Termination

Illustrative rates of withdrawal from the plan for reasons other than death or disability are as follows:

Age	Rate of Withdrawal
20	.0397
25	.0250
30	.0146
35	.0079
40	.0042
45	.0029

It is assumed that terminated firefighters will not be rehired

Disability Rates

Incidence of disability amongst firefighters eligible for disability benefits:

Age	Rate
25	.0009
30	.0025
35	.0046
40	.0065
45	.0097
50	.0166
55	.0314

15% of disabilities amongst active firefighters are assumed to be in the performance of their duty.

Retirement Rates

Retirements are assumed to occur between the ages of 50 and 69 in accordance with the following table:

Age	Rate of Retirement	Age	Rate of Retirement
50	.19	60	.28
51	.12	61	.36
52	.04	62	.44
53	.06	63	.52
54	.09	64	.60
55	.12	65	.68
56	.15	66	.76
57	.19	67	.84
58	.22	68	.92
59	.25	69	1.00

(Additional)

Marital Status

85% of firefighters are assumed to be married.

Spouse's Age

Wives are assumed to be 3 years younger than their husbands.

Actuarial Cost Method

Projected Unit Credit for statutory minimum
Entry Age Normal for recommended and GASB reporting

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Definitions

Tier 1 – For Firefighters first entering Article 4 prior to January 1, 2011

Tier 2 – For Firefighters first entering Article 4 after December 31, 2010

Firefighter (4-106): Any person employed in the municipality's fire service as a firefighter, fire engineer, marine engineer, fire pilot, bomb technician or scuba diver.

Creditable Service (4-108): Time served by a firefighter, excluding furloughs and leaves of absence in excess of 30 days, but including leaves of absence for illness or accident and periods of disability where no disability pension payments are received and also including up to 3 years during which disability payments have been received provided contributions are made.

Creditable Service from other specified agencies is also included. Combined service credit option is available on a voluntary basis.

Pension (4-109)

Normal Pension Age
Tier 1 - Age 50 with 20 or more years of creditable service.

Tier 2 - Age 55 with 10 or more years of creditable service.

Normal Pension Amount
Tier 1 - 50% of the greater of the annual salary held in the year preceding retirement or the annual salary held on the last day of service, plus 2½% of such annual salary for service from 20 to 30 year (maximum 25%)].

Tier 2 - 2½% of Final Average salary for each year of service. Final Average Salary is the highest salary based on the highest consecutive 96 months of the final 120 months of service

Early Retirement at age 50 with 10 or more years of service but with a penalty of ½% for each month prior to age 55.

Annual Salary capped at $106,800 increased yearly by the lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3%.

Minimum Monthly Benefit: $1,000
Maximum Benefit Percentage: 75% of salary
Minimum Monthly Benefit: Annual step rate increases from $1,030.00 to $1,159.27.

Maximum Benefit Percentage: 75% of salary except line of duty.

SUMMARY OF PRINCIPAL PLAN PROVISIONS
(Continued)

Termination Pension Amount
Any firefighter who retires or is separated from service with at least 10, but less than 20 years of credited service, shall be entitled to a monthly pension commencing at age 60 equal to the monthly rate of compensation based on rank at separation multiplied by the applicable percentage below:

Years of Credited Service	Applicable Percentage
10	15.0 %
11	17.6
12	20.4
13	23.4
14	26.6
15	30.0
16	33.6
17	37.4
18	41.4
19	45.6

Pension Increase

Non-Disabled
Tier 1 - 3% increase of the original pension amount after attainment of age 55 for each year elapsed since retirement, followed by an additional 3% of the original pension amount on each January thereafter. Effective July 1, 1993, 3% of the amount of pension payable at the time of the increase including increases previously granted, rather than 3% of the originally granted pension amount.

Tier 2 - The lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3% increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount on each January 1 thereafter. For firefighters who retire after January 1, 1986, 3% increase of the original pension amount after attainment of age 55 for each year elapsed since retirement, followed by an additional 3% in each January thereafter.

For firefighters who retire prior to January 1, 1986, but after July 1, 1971, the 3% increase commences at age 60, and for firefighters who retire before July 1, 1971, the 3% increase commences at age 65.

Disabled
3% increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount in each January thereafter.

Pension to Survivors (4-114)

Eligibility
Death of a firefighter:

(1) on active duty as a result of any illness or accident;

(2) on disability retirement;

(3) on retirement with 20 years of service;

(4) as a terminated member who has rights to a benefit at age 60; and

(5) as a deferred pensioner.

SUMMARY OF PRINCIPAL PLAN PROVISIONS
(Continued)

Death Benefit
Tier 1 - 54% of annual salary based on attained rank at date of separation of service to surviving spouse, plus 12% of such salary to dependent children under 18.

100% of annual salary if death occurs in the line of duty.

Depending upon the survival of the spouse, dependent children benefits may increase to a level of 20% of firefighter's salary.

Greater of 100% of monthly retirement benefit or 54% of annual salary if completed 20 years of service or on disability retirement.

Tier 2 – 66 2/3% of pension amount to surviving spouse (or dependent children), subject to the following increase: the lesser of ½ of the Consumer Price Index- Urban (CPI-U) or 3%.increase of the original pension amount after attainment of age 60, followed by an additional 3% of the original pension amount on each January 1 thereafter.

Minimum Monthly Survivor Pension
Annual step rate increases from $1,030.00 to $1,159.27.

Maximum Survivor Pension
75% of such firefighter's salary.
Disability Pension - Line of Duty (4-110)

Eligibility
Suspension or retirement from fire service due to sickness, accident or injury while on duty.

Pension
Greater of 65% of salary attached to rank at date of suspension or retirement and the retirement pension available.

Minimum Monthly Benefit: Annual step rate increases from $1,030.00 to $1,159.27.

For each dependent child under 18, an additional $20 per month increased annually is granted each disabled member. Maximum total benefit is 75% of salary.

Disability Pension - Not on Duty (4-111)

Eligibility
Suspension or retirement from fire service for any cause other than while on duty. Member must have at least 7 years of credited service.

Pension
50% of salary attached to rank at date of suspension or retirement.

Disability Pension - Occupational Disease (4-110.1)

Eligibility
Suspension or retirement from service after 5 years of service from causes of heart disease, cancer, tuberculosis or other lung disease.

Pension
Same pension as in line of duty.

SUMMARY OF PRINCIPAL PLAN PROVISIONS
(Continued)

Disability Pension Option A (4-113(a))

Eligibility
Member receiving a disabled pension who attains age 50 and whose years of creditable service and years of disablement total 20 years.

Pension Option
Eligible for pension increase upon conversion to retirement. Pension amount remains the same at date of conversion but subject to annual pension increases.

Disability Pension Option B (4-113(b))

Eligibility
Member receiving disability pension who attains age 50 and who had 20 years of creditable service at date of disablement.

Pension Option
Convert to normal pension based upon years of service at disablement and salary attached to rank on date of election.

Other Provisions

Refund (4-116)
At death with no survivors, contributions are returned to estate.

At termination with less than 20 years of service, contributions are refunded upon request.

Contributions by Firefighters (4.118.1)
9.455% of salary, including longevity, but excluding overtime pay, holiday pay, bonus pay, merit pay or other cash benefit. Additional 1% of salary if combined service credit option is selected.

GLOSSARY

Actuarial Accrued Liability
See ***Entry Age Normal Cost*** *Method and* ***Projected Unit Credit Cost*** *Method.*

Actuarial Assumptions
The economic and demographic predictions used to estimate the present value of the plan's future obligations. They include estimates of investment earnings, salary increases, mortality, withdrawal and other related items. The *Actuarial Assumptions* are used in connection with the *Actuarial Cost Method* to allocate plan costs over the working lifetimes of plan participants.

Actuarial Cost Method
The method used to allocate the projected obligations of the plan over the working lifetimes of the plan participants. Also referred to as an *Actuarial Funding Method.*

Actuarial Funding Method
See *Actuarial Cost Method*

Actuarial Gain (Loss)
The excess of the actual *Unfunded Actuarial Accrued Liability* over the expected *Unfunded Actuarial Accrued Liability* represents an *Actuarial Loss.* If the expected *Unfunded Actuarial Accrued Liability* is greater, an *Actuarial Gain* has occurred.

Actuarial Present Value
The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of *Actuarial Assumptions.*

Actuarial Value of Assets
The asset value derived by using the plan's *Asset Valuation Method.*

Asset Valuation Method
A valuation method designed to smooth random fluctuations in asset values. The objective underlying the use of an asset valuation method is to provide for the long-term stability of employer contributions.

Employee Retirement Income Security Act of 1974 (ERISA)
The primary federal legislative act establishing funding, participation, vesting, benefit accrual, reporting, and disclosure standards for pension and welfare plans.

GLOSSARY
(Continued)

Entry Age Normal Cost Method
One of the standard actuarial funding methods in which the *Present Value of Projected Plan Benefits* of each individual included in the *Actuarial Valuation* is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The portion of this *Actuarial Present Value* allocated to a valuation year is called the *Normal Cost*. The portion of this *Actuarial Present Value* not provided for at a valuation date by the *Actuarial Present Value* of future *Normal Costs* is called the *Actuarial Accrued Liability*.

Normal Cost
The portion of the *Present Value of Projected Plan Benefits* that is allocated to a particular plan year by the *Actuarial Cost Method*. See *Entry Age Normal Cost Method* for a description of the Normal Cost under the *Entry Age Normal Cost Method*. See *Projected Unit Credit Cost Method* for a description of the Normal Cost under the *Projected Unit Credit Cost Method*.

Present Value of Future Normal Costs
The present value of future normal costs determined based on the *Actuarial Cost Method* for the plan. Under the *Entry Age Normal Cost Method*, this amount is equal to the excess of the *Present Value of Projected Plan Benefits* over the sum of the *Actuarial Value of Assets* and *Unfunded Actuarial Accrued Liability*.

Present Value of Projected Plan Benefits
The present value of future plan benefits reflecting projected credited service and salaries. The present value is determined based on the plan's actuarial assumptions.

Projected Unit Credit Cost Method
One of the standard actuarial funding methods in which the *Present Value of Projected Plan Benefits* of each individual included in the *Actuarial Valuation* is allocated by a consistent formula to valuation years. The *Actuarial Present Value* allocated to a valuation year is called the *Normal Cost*. The *Actuarial Present Value* of benefits allocated to all periods prior to a valuation year is called the *Actuarial Accrued Liability*.

Statement No. 25 of the Governmental Accounting Standards Board (GASB No. 25)
The accounting statement that established the standards of financial accounting and reporting for the financial statements of defined benefit pension plans.

Unfunded Actuarial Accrued Liability
The excess of the *Actuarial Accrued Liability* over the *Actuarial Value of Assets*.