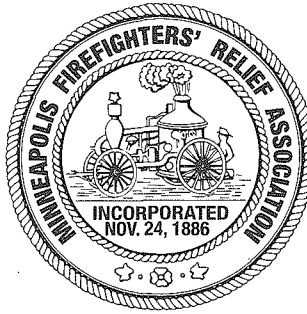


Minneapolis
Firefighters'
Relief Association

Pension Fund



2021 EAST HENNEPIN AVENUE
SUITE 360
MINNEAPOLIS, MINNESOTA 55413-1830
TELEPHONE 612/331-4255
FAX 612/331-4104
e mail admin@mfdra.com
www.mfdra.com



April 30, 2008

Brian Rice
Rice Michels & Walther
206 East Bridge – Riverplace
10 Second Street NE
Mpls MN 55413

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Larry Martin, Director
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St. Paul MN 55155

City of Mpls Budget Office
350 So 5th Street
Room 315M, City Hall
Mpls MN 55415

Re: Year End December 2007 Actuary Report

Enclosed please find the Minneapolis Firefighters' Relief Association Actuarial Valuation for the year ended December 31, 2007.

Sincerely,

Walter C. Schirmer
Executive Secretary

Encl

**MINNEAPOLIS FIREFIGHTERS'
RELIEF ASSOCIATION**

SPECIAL FUND

*December 31, 2007
Actuarial Valuation*

April 28, 2008

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

December 31, 2007 Actuarial Valuation of the Special Fund

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MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION
December 31, 2007 Actuarial Valuation of the Special Fund

Introduction

Purpose

This report presents the results of the December 31, 2007 valuation for the Minneapolis Firefighters' Relief Association. Its primary purposes are:

- to determine the funded status as of December 31, 2007,
- to determine the normal cost for 2007, and
- to present information required to be disclosed under Governmental Accounting Standards Board Statement No. 25 (GASB 25) as of December 31, 2007.

Sources of Data

The Relief Association supplied December 31, 2007 data for all active and inactive members, and asset information, including the market and book value of investments as of December 31, 2007, and the amount of receivables and payables at year end. The Relief Association also provided historical salary increase rate and investment return values used in determining the actuarial value of assets. We have relied on this data in preparing this report.

Changes from the Previous Valuation

The prior actuarial valuation of the plan was prepared as of December 31, 2006. The actuarial assumptions and methods used to prepare this report are the same as those used in the 2006 report (see page 19). For the 2006 report, liabilities were determined based on a unit value of 82.9674 effective October 15, 2006. That unit value was later revised to 83.1522, and the change is reflected in this report. As of the date of this report, a new union contract has been settled effective through 2010. The unit values determined based on the contract are shown on page 7 of this report. Unit values beyond the contract are projected at 4% annual increases. As of January 1, 2008, the annualized unit value for determining plan liabilities is 86.2658.

Summary of Valuation Results

As of December 31, 2007, the funded status of the plan (actuarial accrued liabilities divided by the actuarial value of assets) is 92.8%, up from 87.5% on December 31, 2006. This improvement was due to favorable investment results, and the effect on liabilities of the 3% contract increases (see page 10). The 3% increases are smaller than the 4% that had been assumed so that liabilities for 2007 are smaller than would have been projected (see page 10). Investment return for the year was 11.5%, exceeding the 6% assumed return.

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION*December 31, 2007 Actuarial Valuation of the Special Fund***Introduction (continued)****Actuarial Certification**

We certify that the actuarial valuation has been prepared in accordance with Minnesota Statutes §356.20-.23 and §69.77 as they relate to fire department relief associations in cities of the first class in general and the Minneapolis Firefighters' Relief Association in particular.

Respectfully submitted,



Mark D. Meyer, FSA, MAAA
Consulting Actuary



Paul D. Krueger, JD, EA
Consulting Actuary

December 31, 2007 Actuarial Valuation of the Special Fund

Summary of Results

	<u>December 31, 2006</u>	<u>December 31, 2007</u>
<u>A. Plan participant data</u>		
1. Number of participants		
a. Active employees	31	27
b. Terminated vested employees	0	0
c. Retirees	374	366
d. Disability	51	51
e. Surviving spouses	167	164
f. Surviving children	0	0
g. Total	623	608
<u>B. Normal costs</u>		
	<u>2006 Plan Year</u>	<u>2007 Plan Year</u>
1. Total normal cost		
a. Amount	\$547,006	\$447,608
b. Percentage of active payroll	22.85%	17.98%
2. Employer normal cost		
a. Amount	355,516	248,458
b. Percentage of active payroll	14.85%	9.98%
<u>C. Amortization payments</u>		
1. Unfunded actuarial accrued liability	\$37,649,951	\$20,981,720
2. Amortization payment	4,195,292	2,788,761
<u>D. Value of plan assets</u>		
	<u>December 31, 2006</u>	<u>December 31, 2007</u>
1. Market value	263,951,959	274,954,486
2. Actuarial value (for calculating contributions)	263,275,562	270,096,261
<u>E. Benefit liabilities</u>		
1. Present value of future benefits	302,609,327	292,214,789
2. Actuarial accrued liability	300,925,513	291,077,981
<u>F. Funded status</u>		
1. Actuarial value of assets as a % of liabilities	87.5%	92.8%
2. Market value of assets as a % of liabilities	87.7%	94.5%

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

December 31, 2007 Actuarial Valuation of the Special Fund

Funding Basis

Actuarial Value of Assets

A. Average unrealized gain

Year Ending December 31:	Market Value	Book Value	Unrealized Gain (Market - Book)
2004	\$255,076,595	\$208,940,621	\$46,135,974
2005	253,180,944	228,019,216	25,161,728
2006	263,951,959	229,268,152	34,683,807
2007	274,954,486	239,806,540	35,147,946

B. Preliminary actuarial value of assets

	<u>December 31, 2006</u>	<u>December 31, 2007</u>
1. Book value of assets	\$229,268,152	\$239,806,540
2. Average unrealized gain for previous three years	<u>35,327,170</u>	<u>31,664,494</u>
3. Preliminary actuarial value	264,595,322	271,471,033

C. Excess investment income

1. Salary increases and time-weighted rate of return on assets

<u>Fiscal Year</u>	<u>Salary Increase</u>	<u>Asset Return</u>
2002	3.491%	-9.650%
2003	1.887%	20.000%
2004	6.296%	10.047%
2005	1.524%	5.890%
2006	2.623%	12.460%
2007	1.480%	11.500%

2. Determination of excess investment income

a. Arithmetic average of previous 5 years salary increases	3.164%	2.762%
b. Arithmetic average of previous 5 years of asset returns	7.749%	11.979%
c. Excess of asset return over salary increase	4.585%	9.217%
d. Excess minus 2%	2.585%	7.217%
e. Excess investment income - min of 1.0% or 2.d., x market value	2,639,520	2,749,545
f. Post-retirement benefit - min of 0.5% or 2.d., x market value	1,319,760	1,374,772

D. Actuarial value of assets (B.3. - C.2.f.)

<u>\$263,275,562</u>	<u>\$270,096,261</u>
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MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

December 31, 2007 Actuarial Valuation of the Special Fund

Summary of Member Data

	<u>December 31, 2006</u>	<u>December 31, 2007</u>
<u>A. Active members</u>		
1. Number		
a. Fully vested	31	27
b. Nonvested	0	0
c. Total	31	27
2. Average age	54.8	55.8
3. Average years of service	29.2	30.3
4. Total valuation payroll (for the year following the valuation date)	\$2,489,368	\$2,236,009
5. Average annual salary	\$80,302	\$82,815
<u>B. Vested terminated members</u>		
1. Number	0	0
2. Total annual deferred benefits	\$0	\$0
3. Average annual benefit	\$0	\$0
4. Average age	0.0	0.0
<u>C. Retirees</u>		
1. Number	374	366
2. Total annual benefits	\$15,371,432	\$15,524,573
3. Average annual benefit	\$41,100	\$42,417
4. Average age	69.9	70.6
<u>D. Disabilitants</u>		
1. Number	51	51
2. Total annual benefits	\$2,098,898	\$2,164,581
3. Average annual benefit	\$41,155	\$42,443
4. Average age	67.8	68.1
<u>D. Surviving spouses</u>		
1. Number	167	164
2. Total annual benefits	\$3,792,702	\$3,833,483
3. Average annual benefit	\$22,711	\$23,375
4. Average age	78.2	78.0
<u>E. Dependent children</u>		
1. Number	0	0
2. Total annual benefits	\$0	\$0
3. Average annual benefit	\$7,774	\$0
4. Average age	0.0	0.0
<u>F. Total number of members</u>	623	608

December 31, 2007 Actuarial Valuation of the Special Fund

Summary of Changes in Membership

	<u>Actives</u>	<u>Vested Terminees</u>	<u>Retirees</u>	<u>Disabled</u>	<u>Spouses</u>	<u>Children</u>	<u>Total</u>
<u>A. Number of members on December 31, 2006</u>	31	0	374	51	167	0	623
<u>B. Changes in membership</u>							
1. Retirements	(3)		3				0
2. Vested terminations							0
3. Member deaths			(11)		9		(2)
4. Beneficiary deaths				(1)	(12)		(13)
5. Expiration of surviving child benefits							0
6. Separations due to disability	(1)			1			0
7. Change to disability payment status							
8. Corrections							0
9. Total changes	(4)	0	(8)	0	(3)	0	(15)
<u>C. Number of members on December 31, 2007</u>	27	0	366	51	164	0	608

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

December 31, 2007 Actuarial Valuation of the Special Fund

Historical Unit Values

	Effective Date	Contract Unit Values	Months Paid	Historical Salary Rates for PRB				
				Annualized Unit Values	Annualized Salary	Dollar Increase	Annualized Return	5-Year Average
1999	01/01/99	\$64.9037	\$9.5000	\$65.5256	\$62,905			
	10/15/99	67.8887	2.5					
2000	01/01/2000	67.9408	9.5	68.3398	65,606	2,702	4.295%	
	10/15/2000	69.8559	2.5					
2001	01/01/2001	70.4249	9.5	70.8372	68,004	2,398	3.654%	
	10/15/2001	72.4039	2.5					
2002	01/01/2002	73.0107	9.5	73.3100	70,378	2,374	3.491%	
	10/15/2002	74.4474	2.5					
2003	01/01/2003	74.4474	9.5	74.6934	71,706	1,328	1.887%	
	10/15/2003	75.6284	2.5					
2004	01/01/2004	79.3547	9.5	79.3958	76,220	4,514	6.296%	3.925%
	10/15/2004	79.5518	2.5					
2005	01/01/2005	79.5518	6.0	80.6054	77,381	1,161	1.524%	3.370%
	07/01/2005	80.9824	3.5					
	10/15/2005	82.6062	2.5					
2006	01/01/2006	82.6062	9.5	82.7200	79,411	2,030	2.623%	3.164%
	10/15/2006	83.1522	2.5					
2007	01/01/2007	83.1522	8.1	83.9441	80,586	1,175	1.480%	2.762%
	09/09/2007	85.5889	3.9					
2008	01/01/2008	85.8168	9.9	86.2658	82,815	2,229	2.766%	2.938%
	10/26/2008	88.3825	2.1					
2009	01/01/2009	88.3825	9.5	88.3825	84,847	2,032	2.454%	2.169%
	10/15/2009	88.3825	2.5					
2010	01/01/2010	91.0340	9.5	91.0340	87,393	2,545	3.000%	2.465%
	10/15/2010	91.0340	2.5					

Contract unit values: Liabilities determined in the December 31, 2006 actuarial valuation report were based on the unit value \$82.9674, which was effective as of October 15, 2006. Since that report was issued, the unit value was modified to \$83.1522, and that change has been reflected in this report.

The unit values as of September 9, 2007, January 1, 2008 and October 26, 2008 were determined by Rice, Michels and Walther based on the most recent union contract. The January 1, 2010 unit value is estimated based on the 3% increase effective in the final year of the contract.

December 31, 2007 Actuarial Valuation of the Special Fund

*Funding Basis*Actuarial Values Used to Determine Contribution

	<u>December 31, 2006</u>	<u>December 31, 2007</u>
<u>A. Actuarial present value of projected benefits (the value of all future benefits to be paid to the current group of members)</u>		
1. Active members	\$24,924,156	\$22,173,078
2. Vested terminated members	0	0
3. Retired members	212,232,388	204,883,603
4. Spouses and children receiving benefits	35,120,216	34,906,872
5. Disabled members receiving benefits	<u>30,332,567</u>	<u>30,251,236</u>
6. Total present value of projected benefits	302,609,327	292,214,789
<u>B. Actuarial accrued liability (the cost allocated to all prior years)</u>		
1. Active members	\$23,240,342	\$21,036,270
2. Vested terminated members	0	0
3. Retired members	212,232,388	204,883,603
4. Spouses and children receiving benefits	35,120,216	34,906,872
5. Disabled members receiving benefits	<u>30,332,567</u>	<u>30,251,236</u>
6. Total actuarial accrued liability	300,925,513	291,077,981
<u>C. Amortization of unfunded actuarial accrued liability</u>		
1. Total actuarial accrued liability (B.6.)	\$300,925,513	\$291,077,981
2. Actuarial value of assets	263,275,562	270,096,261
3. Unfunded actuarial accrued liability (1. - 2.)	37,649,951	20,981,720
4. Funded status (2. / 3.)	87.5%	92.8%
5. Years left in amortization period	see page 9	see page 9
6. Amortization payment	4,195,292	2,788,761
<u>D. Normal cost (the cost allocated to the current year)</u>		
	<u>December 31, 2006</u>	<u>December 31, 2007</u>
1. Present value of future normal costs	\$1,683,813	\$1,136,808
2. Normal cost as a dollar amount		
a. Total normal cost	547,006	447,608
b. Statutory adjustment for member contributions	191,490	199,149
c. Employer normal cost (a. - b.)	355,516	248,458
3. Payroll for year ending on valuation date	2,393,623	2,489,368
4. Normal cost as a percent of active payroll		
a. Total normal cost	22.85%	17.98%
b. Statutory adjustment for member contributions	8.00%	8.00%
c. Employer normal cost (a. - b.)	14.85%	9.98%

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION
December 31, 2007 Actuarial Valuation of the Retirement Plan

Funding Basis

Amortization Schedule for the Required Contribution

<u>Date</u> <u>Established</u>	<u>Initial</u> <u>Balance</u>	<u>Outstanding</u> <u>Balance on</u> <u>12/31/2007</u>	<u>Remaining</u> <u>Years to</u> <u>Amortize</u>	<u>Amortization</u> <u>Payment</u>
12/31/2003	\$56,964,446	\$46,258,230	11	\$5,533,223
12/31/2004	(33,737,023)	(29,122,599)	12	(3,277,035)
12/31/2005	17,107,353	15,593,296	13	1,661,717
12/31/2006	2,855,699	2,733,011	14	277,387
12/31/2007	(14,480,218)	(14,480,218)	15	(1,406,531)
Total		20,981,720		2,788,761

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

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December 31, 2007 Actuarial Valuation of the Special Fund

Funding Basis

Changes in the Unfunded Actuarial Accrued Liability

A. Liability gain or loss for the year ending on December 31, 2007

1. Expected actuarial accrued liability (AAL)	
a. AAL as of December 31, 2006	\$300,925,513
b. Normal cost as of December 31, 2006 (excluding expenses)	547,006
c. Interest to December 31, 2007 on the AAL and normal cost	18,089,664
d. Benefit payments for the year (excluding post-retirement benefits)	(20,955,795)
e. Interest on benefit payments (1/2 year)	(628,674)
f. Expected AAL on December 31, 2007 (sum of a. through e.)	297,977,714
2. Actual AAL on December 31, 2007	
a. Before any assumption or plan changes	299,670,608
b. After unit value changes	291,077,981
c. After assumption and unit value changes	291,077,981
d. After plan changes	291,077,981
3. Liability (gain) or loss	
a. Due to plan experience different from that expected (2a. - 1f.)	1,692,895
b. Due to change in unit value different from expected (2.b. - 2.a.)	(8,592,627)
c. Due to changes in actuarial assumptions (2c. - 2b.)	0
d. Due to plan changes (2d. - 2c.)	0
e. Total (a. + b. + c. + d.)	(6,899,732)

B. Asset gain or loss for the year ending on December 31, 2007

1. Expected actuarial value of assets	
a. Actuarial value of assets on December 31, 2006	263,275,562
b. Actual benefit payments and expenses for the year (including post-ret benefits)	(22,815,521)
c. Contributions for the year	4,290,278
d. Expected return on assets	15,240,776
e. Expected actuarial value of assets on December 31, 2007 (sum of a. through d.)	259,991,095
2. Actual actuarial value of assets on December 31, 2007	270,096,261
3. Asset (gain) or loss (1e. - 2.)	(10,105,166)

C. Changes in the unfunded AAL

1. Expected unfunded AAL on December 31, 2007	37,986,618
2. Changes	
a. Actuarial (gain) or loss other than change in unit value	(8,412,271)
b. Change in unit value different from expected	(8,592,627)
c. Changes in actuarial methods and assumptions	0
d. Total change	(17,004,898)
3. Unfunded AAL on December 31, 2007	20,981,720

*December 31, 2007 Actuarial Valuation of the Special Fund**Accounting Basis***Statement of Plan Net Assets as of December 31, 2007**

	<u>Market Value</u>	<u>Book Value</u>
<u>A. Investment assets</u>		
1. Short term investments	8,436,689	8,436,689
2. U.S. government obligations	21,298,734	21,105,341
3. GNMA and mortgage-backed securities	9,871,114	9,739,750
4. Municipal obligations	21,699	24,998
5. Corporate bonds	2,677,609	2,668,909
6. Corporate bond funds	27,339,638	21,384,158
7. Foreign bonds, notes, debentures	135,462	137,722
8. U.S. corporate stock	93,983,313	82,318,588
9. Equity mutual funds	29,100,438	24,330,588
10. Foreign stock	11,289,186	8,046,768
11. Int'l equity mutual funds	69,719,951	60,532,379
12. Limited partnerships	0	0
13. Total	273,873,835	238,725,888
<u>B. Checking account</u>		
	507,683	507,683
<u>C. Accrued/payable</u>		
1. Accrued contributions	236,409	236,409
2. Accounts receivable	135	135
3. Accrued income	558,656	558,656
4. Accounts payable	(222,232)	(222,232)
5. Total	572,968	572,968
<u>D. Net assets held in trust for pension benefits</u>		
	274,954,486	239,806,540

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION

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*December 31, 2007 Actuarial Valuation of the Special Fund***Accounting Basis****Statement of Changes in Plan Net Assets**

December 31, 2006 December 31, 2007

A. Additions

1. Contributions		
a. City	1,348,855	3,030,347
b. State	1,221,161	1,259,931
b. Plan members	(8,836)	0
c. Total	2,561,180	4,290,278
2. Investment income (net of expense)	30,224,609	29,527,770
3. Other	0	0
4. Total additions	32,785,789	33,818,048

B. Deductions

1. Benefits paid		
a. Regular benefit payments	\$21,440,705	\$20,955,795
b. Post-retirement payments	0	1,319,834
c. Total	21,440,705	22,275,629
2. Refund of contributions	0	0
3. Administrative expense and trustee fees	574,069	539,892
4. Total deductions	22,014,774	22,815,521

C. Net increase

10,771,015 11,002,527

D. Net assets held in trust for pension benefits

1. Beginning of year	\$253,180,944	263,951,959
2. End of year	263,951,959	274,954,486

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION
December 31, 2007 Actuarial Valuation of the Special Fund

Accounting Basis

Schedule of Funding Progress
(Dollar amounts in thousands)

<u>As of December 31:</u>	<u>Actuarial Value of Assets</u>	<u>Actuarial Accrued Liability (AAL)</u>	<u>Unfunded AAL (UAAL)</u>	<u>Funded Ratio</u>	<u>Projected Payroll**</u>	<u>UAAL as a % of Covered Payroll*</u>
1995	194,611	234,386	39,775	83.0%	\$11,839	336.0%
1996	208,969	252,540	43,571	82.7%	12,298	354.3%
1997	245,306	274,030	28,724	89.5%	12,079	237.8%
1998	300,150	284,874	(15,276)	105.4%	11,357	-134.5%
1999	318,043	291,168	(26,875)	109.2%	10,039	-267.7%
2000	315,900	293,802	(22,098)	107.5%	7,054	-313.3%
2001	304,887	293,396	(11,491)	103.9%	5,888	-195.2%
2002	255,194	292,678	37,484	87.2%	5,540	676.6%
2003	236,991	293,955	56,964	80.6%	4,397	1295.5%
2004	248,546	275,513	26,967	90.2%	3,142	858.3%
2005	269,426	312,563	43,137	86.2%	2,933	1470.7%
2006	263,276	300,926	37,650	87.5%	2,489	1512.7%
2007	270,096	291,078	20,982	92.8%	2,236	938.4%

* This measure of funded status is meaningless for a closed group but is presented in order to meet the requirement of GASB No. 25.

**Projected payroll for the year following the valuation date (see page 5, line A.4.)

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION
December 31, 2007 Actuarial Valuation of the Special Fund

Accounting Basis

Schedule of Employer Contributions

<u>Year Ended</u> <u>December 31:</u>	<u>City</u> <u>Contributions</u>	<u>State</u> <u>Contributions</u>	<u>Total</u> <u>Employer</u> <u>Contributions</u>
1995	-	-	\$7,405,980
1996	-	-	6,328,580
1997	-	-	4,844,823
1998	-	-	3,541,518
1999	-	-	1,177,332
2000	-	-	1,938,365
2001	222,251	1,011,022	1,233,273
2002	3,920	1,024,112	1,028,032
2003	10,141	1,328,240	1,338,381
2004	859	2,146,934	2,147,792
2005	4,737,779	1,913,877	6,651,656
2006	1,348,855	1,221,161	2,570,016
2007	3,030,347	1,259,931	4,290,278

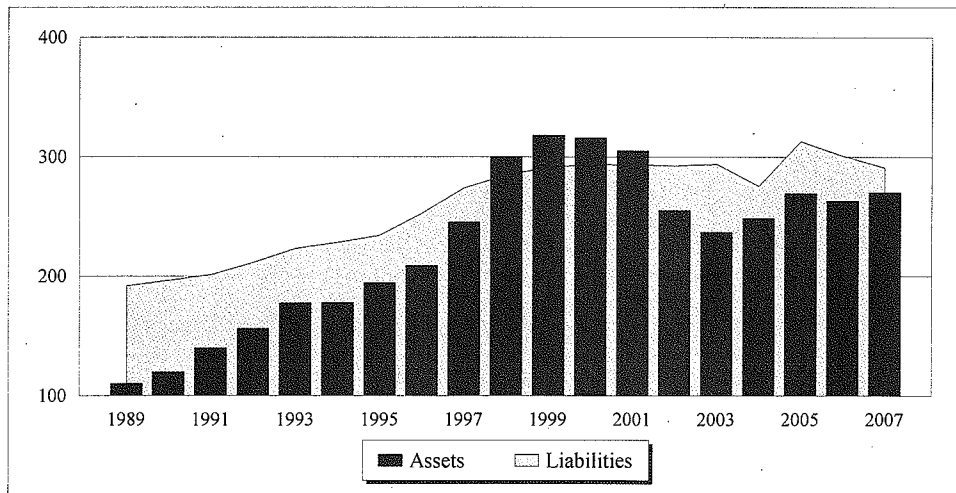
Historical Tables

Historical Funding Ratio Schedule
(Dollar amounts in thousands)

<u>As of December 31:</u>	<u>Actuarial Accrued Liability</u>	<u>Actuarial Value of Assets</u>	<u>Percent Funded</u>
1988*#	\$188,014	\$93,601	49.8%
1989	192,264	110,092	57.3%
1990#	196,491	119,652	60.9%
1991	201,461	139,891	69.4%
1992#	211,558	156,279	73.9%
1993#	223,357	177,529	79.5%
1994	228,567	178,003	77.9%
1995	234,386	194,611	83.0%
1996	252,540	208,969	82.7%
1997	274,030	245,306	89.5%
1998	284,874	300,150	105.4%
1999	291,168	318,043	109.2%
2000	293,802	315,900	107.5%
2001	293,396	304,887	103.9%
2002	292,678	255,194	87.2%
2003	293,955	236,991	80.6%
2004	275,513	248,546	90.2%
2005#	312,563	269,426	86.2%
2006	300,926	263,276	87.5%
2007	291,078	270,096	92.8%

#After change in actuarial assumptions

*After change in benefit provisions



MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION*December 31, 2007 Actuarial Valuation of the Special Fund**Historical Tables***History of Actuarially Determined Employer Contributions**

<u>Valuation December 31:</u>	<u>Normal Cost as a Percent of Payroll</u>	<u>Amortization of Unfunded Actuarial Liability</u>
1991	23.85%	\$5,538,556
1992	23.90%	5,123,898
1993	23.98%	4,403,949
1994	23.99%	5,056,000
1995	23.94%	4,155,683
1996	23.91%	4,779,811
1997	23.88%	3,327,287
1998	23.66%	0
1999	24.07%	0
2000	22.71%	0
2001	22.11%	0
2002	21.74%	0*
2003	21.44%	5,533,223
2004	21.07%	2,256,188
2005	23.22%	3,917,905
2006	22.85%	4,195,292
2007	17.98%	2,788,761

*Minn. Stat. §423C.06(6) provides that the City is not required to fund a deficit until the funded ratio has been under 100% for two successive years.

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION
December 31, 2007 Actuarial Valuation of the Special Fund

Historical Tables

Comparative Schedule of Active Members

<u>Valuation December 31:</u>	<u>Number of Active Members</u>	<u>Projected Payroll</u>	<u>Age</u>	<u>Averages Service</u>	<u>Pay</u>
1991	321	13,664,649	48.6	21.5	42,569
1992	309	13,614,231	49.2	22.2	44,059
1993	285	13,395,285	49.5	22.6	47,001
1994	267	13,073,121	50.2	23.2	48,963
1995	236	11,838,704	50.3	23.5	50,164*
1996*	220	12,297,560	50.8	24.1	55,898
1997	198	12,078,990	51.4	24.7	61,005
1998	179	11,356,611	51.2	24.5	63,445
1999**	153	10,039,101	51.5	25.2	65,615
2000	104	6,782,803	52.0	25.8	67,828
2001	84	5,661,137	52.3	26.3	70,090
2002	76	5,326,859	53.2	27.1	72,894
2003	58	4,227,844	53.1	27.3	75,810
2004	42	3,020,755	53.7	28.1	74,800
2005	37	2,820,636	54.3	28.8	79,283
2006	31	2,393,623	54.8	29.2	80,302
2007	27	2,150,009	55.8	30.3	82,815

* Labor agreement settled in late 1996 with the 1996 single salary of \$53,175

**Payroll used to calculate normal cost for calendar year 1999 is \$9,652,982.

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION
December 31, 2007 Actuarial Valuation of the Special Fund

Historical Tables

Comparative Schedule of Inactive Members

As of December 31:	Number of Retirees and Beneficiaries			Annual Benefits	Present Value of Benefits
	Added to Rolls	Removed from Rolls	On Valuation Date		
1990	24	22	557	\$9,364,461	\$115,174,188
1991	19	22	554	9,717,991	117,998,856
1992	34	24	564	10,418,854	125,708,460
1993	32	22	574	11,350,689	135,712,458
1994	32	31	575	12,845,678	143,862,253
1995	39	18	596	13,417,874	153,032,140
1996	27	27	596	14,091,016	166,750,488
1997	41	34	603	15,441,956	184,855,572
1998	20	12	611	16,759,837	200,745,351
1999	38	27	622	18,001,012	212,743,795
2000	62	34	653	19,610,997	240,364,062
2001	38	46	645	19,919,708	247,423,056
2002	16	27	634	20,451,109	248,173,771
2003	25	29	630	21,248,675	257,735,265
2004	32	41	621	20,598,079	250,231,783
2005	14	34	601	21,397,735	285,341,651
2006	32	41	592	21,263,032	277,685,171
2007	4	15	581	21,522,637	270,041,711

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION*December 31, 2007 Actuarial Valuation of the Special Fund***Actuarial Methods and Assumptions**

1. Mortality The 1983 GAM mortality table set forward 2 years for females. Before 2005, the UP-1984 Mortality Table set forward 2 years for males and set back 3 years for females.
2. Withdrawal The rate of withdrawal is 6% at age 20 decreasing uniformly to zero at age 50 with no withdrawal after that age.
3. Disability Rates varying by age. Sample disability rates are as follows:
- | <u>Age</u> | <u>Rate</u> |
|------------|-------------|
| 25 | 0.08% |
| 30 | 0.08 |
| 35 | 0.08 |
| 40 | 0.20 |
| 45 | 0.26 |
| 50 | 0.49 |
| 55 | 0.89 |
4. Retirement Age Members are assumed to retire at age 57, or attained age if older.
5. Interest Rate 6% compounded annually.
6. Unit value/Salary Scale The annualized value of \$86.2658 as of January 1, 2008, with increases as shown on page 7, and 4% annual increases in subsequent years.
7. Actuarial Cost Method The Entry Age Normal Cost Method. Under this method, the normal cost for an individual member is the level annual dollar amount required, beginning on the date of joining the association, to accumulate the funds needed to pay the member's accrued benefits by their assumed retirement age. The actuarial accrued liability is the accumulated value of these annual normal costs on a given date. The normal cost and accrued liability for the plan is the total of these values for all members.

MINNEAPOLIS FIREFIGHTERS' RELIEF ASSOCIATION*December 31, 2007 Actuarial Valuation of the Special Fund***Summary of Plan Provisions**

1. Normal Retirement Benefit Annual benefit of $1.6/80$ of base pay for each year of service up to 25 years. An additional 2 units are awarded for the 20th year of service, for a maximum of 42 units. Members may choose among alternative survivor payment forms (see 4. below) which modify the number of units payable to the member and their spouse. A member who is single at the time of retirement and who has at least 25 years of service may choose to receive 42.3 units on the condition of a reduced survivor payment to any future spouse. "Base pay" for this purpose means the maximum monthly salary of a first grade firefighter. Members must be at least age 50 with 5 years of service to receive this benefit.
2. Deferred Vested Benefit Annual benefit equal to the accrued normal retirement benefit, deferred to age 50 for members with at least 5 years of service.
3. Disability Benefit Annual benefit of $41/80$ of base pay for members no longer able to perform the duties of a firefighter due to disability.
4. Surviving Spouse's Benefit Annual benefit of $22/80$ of base pay for the surviving spouse of an active or retired member. Upon retirement, members may choose an alternate form of payment that provides 50%, 75% or 100% of their benefit to their spouse after their death. The 22 units are adjusted if one of these alternate forms is selected. Retiring members who are unmarried may elect an actuarial increase.
5. Surviving Children's Benefit Annual benefit of $8/80$ of base pay for each surviving child of an active or retired member. Benefits continue to age 18 or if the child is a full-time student, to age 22. The total benefit for surviving children and spouse combined is limited to $42/80$ of base pay.
6. Member Contributions Members are required to contribute 8% of base pay. After 25 years of service, member contributions are paid to a separate health insurance account.