PUBLIC EMPLOYEES RETIREMENT FUND

ACTUARIAL VALUATION REPORT

JULY 1, 1992





**Actuaries and Consultants** 

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November 13, 1992

Legislative Commission on Pensions and Retirement 55 State Office Building St. Paul, Minnesota 55155

RE: Public Employees Retirement Fund

Commission Members:

Pursuant to the terms of our Actuarial Services Contract, we have performed an actuarial valuation of the Fund as of July 1, 1992.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Public Employees Retirement Fund.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on September 20, 1989.

Respectfully submitted,

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Consulting Actuary

William V. Hogan, F.S.A., M.A.A.A.

Actuary

TKC/WVH/bh

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## REPORT HIGHLIGHTS (DOLLARS IN THOUSANDS)

			07/01/91 <u>Valuation</u>	07/01/92 <u>Valuation</u>
Α.	CONT 1.	RIBUTIONS (Table 11) Statutory Contributions - Chapter 353 % of Payroll	9.17%	9.10%
	2.	Required Contributions - Chapter 356 % of Payroll	9.44%	9.95%
	3.	Sufficiency (Deficiency): (A.1 A.2.)	-0.27%	-0.85%
В.	FUND 1.	ING RATIOS Accrued Benefit Funding Ratio a. Current Assets (Table 1) b. Current Benefit Obligations (Table 8) c. Funding Ratio: (a/b)	\$3,570,304 \$4,458,010 80.09%	\$3,978,110 \$4,868,124 81.72%
	2.	Accrued Liability Funding Ratio a. Current Assets (Table 1) b. Actuarial Accrued Liability (Table 9) c. Funding Ratio: (a/b)	\$3,570,304 \$4,988,671 71.57%	\$3,978,110 \$5,439,953 73.13%
	3.	Projected Benefit Funding Ratio (Table 8) a. Current and Expected Future Assets b. Current and Expected Future Benefit Obligations c. Funding Ratio: (a/b)	\$6,092,063 \$6,231,179 97.77%	\$6,329,838 \$6,782,973 93.32%
С.	PLAN 1.	PARTICIPANTS Active Members a. Number (Table 3) b. Projected Annual Earnings c. Average Annual Earnings (Actual \$) d. Average Age e. Average Service	107,025 \$2,286,179 \$21,361 42.6 8.5	110,100 \$2,455,401 \$22,302 43.0 8.8
	2.	Others  a. Service Retirements (Table 4)  b. Disability Retirements (Table 5)  c. Survivors (Table 6)	25,634 739 4,553	27,057 781 4,721
	e villagen (ferf	<ul><li>d. Deferred Retirements (Table 7)</li><li>e. Terminated Other Non-vested (Table 7)</li><li>f. Total</li></ul>	3,655 7,995 42,576	4,502 8,711 45,772

#### COMMENTARY

#### **Purpose**

The purpose of this valuation is to determine the financial status of the Plan. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

#### Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 81.72%. The corresponding ratio for the prior year was 80.09%.

The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. For 1992 the ratio is 73.13%, which is an increase from the 1991 value of 71.57%.

The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 93.32% shows that the current statutory contributions are inadequate.

### Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes

recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gain and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets", the latter phrase will be used in the remainder of this report.

This Plan participates in the Minnesota Post Retirement Investment Fund (i.e. MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investments, (i.e. SBI), will determine each Plan's portion of the excess earnings for the January benefit increase as well as the Plan's allocated market share of MPRIF.

### Actuarial Balance Sheet (Table 8)

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

For Active Members - salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.

For Non-active Members - the discounted value of benefits, including augmentation in cases where benefits have not commenced.

#### GASB Disclosure

The Current Benefit Obligation amounts in Table 8 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation".

The July 1, 1992 Pension Benefit Obligation reported in Table 8 is reformatted for GASB reporting purposes in the following table:

Retirees and beneficiaries currently	
receiving benefits and terminated	•
employees not yet receiving benefits	\$2,354,094,936
Current Employees	
Accumulated employee contributions	\$680,511,012
including allocated investment income	, , , , , , , , , , , , , , , , , , ,
Employer-financed vested	1,815,266,272
Employer-financed nonvested	18,252,144
Total Pension Benefit Obligation	\$4,868,124,364
Net Assets Available for Benefits at Cost	\$3,933,124,363
Total Benefit Obligation less Assets	\$935,000,001
Funded Ratio	80.79%

### Actuarial Cost Method (Table 9)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 9) to the actuarial balance sheet (Table 8) illustrates the two techniques for allocating liabilities of active Members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities, on the basis of service. The method used in Table 9 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 8 and line A6, column 1, of Table 9).

An Unfunded Actuarial Accrued Liability is computed under the Entry Age Normal Actuarial Cost Method by comparing the liabilities allocated to past service (Actuarial Accrued Liability) to the Current Assets. This amount, line B3, is funded over the remaining years to the amortization date by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 6.5% each year because that is the assumed rate of increase in payroll. Although the payment schedule will be adequate to amortize the existing unfunded, the lower payments in the earlier years will not be sufficient to cover the interest on the unfunded liability. After a few years, the annual payment will cover the interest and also repay a portion of the unfunded.

## Sources of Actuarial Gains and Losses (Table 10)

The assumptions used in making the calculations using the Entry Age Normal Actuarial Cost Method are based on long-term expectations. Each year the actual experience will deviate from the long-term expectation. For a detailed analysis of the major components, refer to Table 10.

### Contribution Sufficiency (Table 11)

This report determines the adequacy of Statutory Contributions by comparing the Statutory Contributions to the Required Contributions.

The Required Contributions, set forth in Chapter 356, consist of:

Normal costs based on the Entry Age Normal Actuarial Cost Method.

A Supplemental Contribution for amortizing any Unfunded Actuarial Accrued Liability.

An Allowance for Expenses.

Table 11 shows the Plan has a contribution deficiency since the Statutory Contribution Rate is 9.10% compared to the Required Contribution Rate of 9.95%.

## Changes in Actuarial Assumptions

The actuarial assumptions listed in Table 12 are the same as those used in the prior valuation.

Paragraph X.1.4 of the Actuarial Standards requires that the Actuarial Present Value of Compensation for purposes of determining the Normal Cost of the Fund be calculated assuming mid-year payments. Previously, beginning of year payments were assumed. This change in methodology results in an increase of 0.54% of payroll in the Normal Cost and Contribution Deficiency of the Fund.

#### Changes in Plan Provisions

There were no changes in plan provisions since the prior valuation which impacted funding costs.

## ACCOUNTING BALANCE SHEET (DOLLARS IN THOUSANDS)

## JULY 1, 1992

		<u>Market Value</u>	<u>Cost Value</u>
Α.	ASSETS		
	1. Cash, Equivalents, Short-term Securities	\$27,509	\$27,509
	2. Investments a. Fixed Income	581,472 1,259,077	567,115 1,137,693
	b. Equity c. Real Estate	87,032	87,815
	3. Equity in Minnesota Post-Retirement	2,123,548	2,123,548
	Investment Fund (MPRIF) 4. Other	963	963
В.	TOTAL ASSETS	\$4,079,601	\$3,944,643
С.	AMOUNTS CURRENTLY PAYABLE	\$11,519	\$11,519
D.	ASSETS AVAILABLE FOR BENEFITS  1. Member Reserves  2. Employer Reserves  3. MPRIF Reserves  4. Non-MPRIF Reserves	\$711,803 1,232,731 2,123,548 0	\$711,803 1,097,773 2,123,548 0
	5. Total Assets Available for Benefits	\$4,068,082	\$3,933,124
Ε.	TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	\$4,079,601 ========	\$3,944,643 =========
F.	DETERMINATION OF ACTUARIAL VALUE OF ASSETS		-
	1. Cost Value of Assets Available		\$3,933,124
	for Benefits (D5) 2. Market Value (D5)	\$4,068,082	
	<ol> <li>Market Value (D5)</li> <li>Cost Value (D5)</li> </ol>	3,933,124	
	<ul><li>4. Market Over Cost: (F2-F3)</li><li>5. 1/3 of Market Over Cost: (F4)/3</li></ul>	\$134,958	44,986
	<ol><li>Actuarial Value of Assets (F1+F5) (Same as "Current Assets")</li></ol>		\$3,978,110 =======

## CHANGE IN ASSETS AVAILABLE FOR BENEFITS (DOLLARS IN THOUSANDS)

## YEAR ENDING JUNE 30, 1992

		<u>Market Value</u>	<u>Cost Value</u>
Α.	ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$3,662,769	\$3,524,071
В.	OPERATING REVENUES		
	<ol> <li>Member Contributions</li> <li>Employer Contributions</li> <li>Investment Income</li> <li>MPRIF Income</li> <li>Net Realized Gain (Loss)</li> <li>Other</li> <li>Net Change in Unrealized Gain (Loss)</li> </ol>	\$101,655 109,203 255,225 177,508 0 1,347 (3,740)	\$101,655 109,203 255,225 177,508 0 1,347
	8. Total Revenue	\$641,198	\$644,938
С.	OPERATING EXPENSES		
	<ol> <li>Service Retirements</li> <li>Disability Benefits</li> <li>Survivor Benefits</li> <li>Refunds</li> <li>Expenses</li> <li>Other</li> </ol>	\$198,848 4,984 13,120 11,881 6,611 441	\$198,848 4,984 13,120 11,881 6,611 441
	7. Total Disbursements	\$235,885	\$235,885
Ď.	OTHER CHANGES IN RESERVES	0	0
Ε.	ASSETS AVAILABLE AT END OF PERIOD	\$4,068,082 ========	\$3,933,124

## ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE									
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>	
<25 25-29	555 603	2,386 5,658	81 1,926	76				·	3,022 8,263	
30-34 35-39	586 570	6,639 7,425	4,288 4,979	2,039 3,463	127 1,876	105			13,679 18,418	
40-44 45-49	454 284	6,504 4,068	5,312 4,247	3,438 3,027	2,714 3,887	1,033 1,497	50 414	21	19,505 17,445	
50-54 55-59	170 98	2,390 1,473	2,636 1,734	2,444 1,747	1,997 1,720	1,416 1,506	733 729	251 471	12,037 9,478	
60-64 65+	41 24	876 476	1,062 443	1,065 377	1,082 313	1,110 322	559 148	269 86	6,064 2,189	
ALL	3,385	37,895	26,708	17,676	13,716	6,989	2,633	1,098	110,100	
			AVE	RAGE ANN	IUAL EARN	INGS				
405			- F 0		F SERVIC		05 00	20.		
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL	
<25 25-29	8,074 10,034	11,742 16,667	17,474 21,582	20,644					11,222 17,365	
30-34 35-39	10,030 9,871	17,292 15,540	24,561 23,509	24,437 28,211	23,631 28,260	27,705			20,383 21,266	
40-44 45-49	9,612 10,376	15,612 15,665	21,799 20,319	28,509 24,647	32,965 21,613	32,743 36,044	32,472 35,716	34,682	22,796 21,843	
50-54 55-59	9,235 10,349	15,217 14,714	19,372 18,053	21,723 21,003	24,650 21,917	29,199 24,850	35,528 32,009	35,352 37,231	22,230 21,806	
60-64 65+	7,919 4,947	13,003 9,410	16,349 11,628	20,274 15,666	21,973 17,163	23,248 17,976	28,065 21,335	34,048 31,037	20,630 14,912	
ALL	9,564	15,614	21,429	24,836	25,194	28,767	32,143	35,488	20,941	
	PRI	OR FISCA	L YEAR E	ARNINGS	(IN MILL	IONS) BY	YEARS O	F SERVICE		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL	
ALL	32	591	572	439	345	201	84	38	2,306	

PUBLIC EMPLOYEES RETIREMENT FUND
SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED								
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	3	7	1					11
55-59 60-64	388 851	579 1,662	30 1,102					997 3,615
65-69 70-74	689 107	2,992 511	3,540 3,991	193 1,782	1 56	2		7,415 6,449
75-79 80-84	16 1	66 12	652 72	3,297 220	614 1,968	9 165	3	4,654 2,441
85+	1	7	17	50	221	856	323	1,475
ALL	2,056	5,836	9,405	5,542	2,860	1,032	326	27,057
			AVERAGE	E ANNUAL E	BENEFIT			
			YE	EARS RETIF	RED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	14,441	8,007	15,593					10,451
55-59 60-64	8,746 7,214	7,111 6,301	8,942 10,615					7,802 7,831
65-69 70-74	5,798 2,816	4,870 3,966	8,726 6,445	15,033 8,543	9,658 7,530	10,497		7,063 6,779
75-79 80-84	6,348 4,155	2,379 1,446	4,524 1,785	6,447 4,348	8,961 6,019	6,739 5,743	10,260	6,452 5,707
85+	2,887	2,859	3,322	3,758	5,393	4,871	6,018	5,134
ALL	6,800	5,387	7,627	7,312	6,634	5,038	6,058	6,794
	T01	TAL ANNUAL	BENEFIT	(IN THOU		YEARS RE	TIRED	
AGE	<1	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	13,981	31,439	71,732	40,523	18,973	5,199	1,975	183,825

# PUBLIC EMPLOYEES RETIREMENT FUND SURVIVORS AS OF JUNE 30, 1992

				RS SINCE			····	
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	16 13	38 46	41 29	16 14	7 8	1	1	119 112
55-59 60-64	18 12	53 94	90 215	32 60	17 41	6 15	3 12	219 449
65-69 70-74	5 7	65 32	281 205	191 312	56 145	28 48	27 62	653 811
75-79 80-84	11 15	24 31	83 74	238 90	282 215	79 113	109 138	826 676
85+	12	46	103	110	157	163	265	856
ALL	109	429	1,121	1,063	928	453	618	4,721
			AVERAG	E ANNUAL	BENEFIT			
				RS SINCE		00.04	0.5	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54	6,528 5,213	7,098 6,022	6,739 8,040	6,647 8,553	6,460 7,314	2,485	3,005 4,138	6,765 6,811
55-59 60-64	4,321 3,487	5,992 5,118	8,377 8,661	7,162 6,935	6,941 7,209	4,434 4,212	3,635 3,237	7,004 7,124
65-69 70-74	3,351 4,583	3,966 5,045	8,242 6,259	7,163 6,623	6,856 6,213	3,629 3,360	3,293 2,629	6,942 5,879
75-79 80-84	2,341 3,701	4,252 4,113	4,633 5,350	6,191 5,527	5,583 5,583	3,849 4,991	2,859 3,045	5,055 4,824
85+	2,839	4,426	4,994	5,076	5,579	5,769	4,774	5,131
ALL	4,184	5,123	7,154	6,430	5,876	4,776	3,730	5,810
			BENEFIT (					44.5
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	456	2,198	8,020	6,835	5,453	2,164	2,305	27,429

# PUBLIC EMPLOYEES RETIREMENT FUND DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED								
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	25 17	62 42	18 24	3 5	1 2			109 90
55-59 60-64	32 31	86 120	69 124	14 47	6 10			207 332
65-69 70-74	1	9	18	11	2	1	1	43
75-79 80-84								
85+								
ALL	106	319	253	80	21	1	1	781
			AVERAGE	ANNUAL E	BENEFIT			
				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	4,751 6,899	3,773 4,538	2,803 4,832	4,385 11,638	5,993 1,961			3,875 5,400
55-59 60-64	10,062 6,087	6,822 5,958	6,854 6,326	7,119 8,408	6,558 8,742			7,346 6,539
65-69 70-74	3,485	4,076	3,663	7,213	2,469	2,916	4,936	4,610
75-79 80-84								
85+								
ALL	7,078	5,526	5,888	8,069	6,743	2,916	4,936	6,144
	T0T	AL ANNUAL				YEARS DIS	ABLED	
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	750	1,763	1,490	646	142	3	5	4,799

# PUBLIC EMPLOYEES RETIREMENT FUND RECONCILIATION OF MEMBERS

			Term	inated
		<u> Actives</u>	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	107,025	3,655	7,995
В.	ADDITIONS	13,068	1,493	3,112
<b>C.</b>	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(1,745) (145) (47) (43) (1,479) (3,882) (2,261) 0	(312) (10) (4) (2) 0 0 0 (240)	(65) (1) 0 (3) 0 (1,196) 0 (882)
D.	DATA ADJUSTMENTS	(391)	(78)	(249)
	Vested Non-Vested	84,899 25,201		
Ε.	TOTAL ON JUNE 30, 1992	110,100	4,502	8,711
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	25,634	739	4,553
В.	ADDITIONS	2,219	194	341
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (794) 0 0	(80) (62) 0 0	0 (169) 0 0
D.	DATA ADJUSTMENTS	(2)	(10)	(4)
Ε.	TOTAL ON JUNE 30, 1992	27,057	781	4,721

## ACTUARIAL BALANCE SHEET (DOLLARS IN THOUSANDS)

JULY 1, 1992

Α.	CURR	ENT ASSETS (TABLE 1, F6)		\$3,978,110					
В.	1.	CTED FUTURE ASSETS Present Value of Expected Statutory Supplemental Co		\$1,008,708					
	2.	Present Value of Future N		1,343,020					
	3.	Total Expected Future Ass	ets		\$2,351,728				
С.	TOTA	L CURRENT AND EXPECTED FUT	URE ASSETS		\$6,329,838				
D.	CURR	CURRENT BENEFIT OBLIGATIONS Non-Vested Vested  1. Benefit Recipients							
	1.	a. Retirement Annuities b. Disability Benefits c. Surviving Spouse and Child Benefits		\$1,983,819 47,017 257,119	\$1,983,819 47,017 257,119				
	2.	Deferred Retirements With Future Augmentation		63,147	63,147				
	3.	Former Members Without Vested Rights	2,993	2,993					
	4.	Active Members a. Retirement Annuities b. Disability Benefits c. Survivor's Benefits d. Deferred Retirements e. Refund Liability Due to Death or Withdraw	116,159 90,616 7,850 0	1,820,380 0 0 434,197 34,425	1,830,782 116,159 90,616 442,047 34,425				
	5.	Total Current Benefit Obligations	\$225,027	\$4,643,097	\$4,868,124				
Ε.	EXPE		\$1,914,849						
F.	TOTA	\$6,782,973							
G.	CURR	ENT UNFUNDED ACTUARIAL LIA	BILITY (D5-A)		\$890,014				
Н.	CURR	\$453,135							

# DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) AND SUPPLEMENTAL CONTRIBUTION RATE (DOLLARS IN THOUSANDS)

## JULY 1, 1992

			Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
Α.	DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)		(1)	(2)	(3)=(1)-(2)
	1.	Active Members a. Retirement Annuities b. Disability Benefits c. Survivor's Benefit d. Deferred Retirements e. Refunds Due to Death or Withdrawal	\$3,257,599 215,244 157,669 734,013 64,352	\$782,167 88,654 53,647 372,936 45,616	\$2,475,432 \$126,590 \$104,022 \$361,077 \$18,736
		f. Total	\$4,428,878	\$1,343,020	\$3,085,858
	2.	Deferred Retirements With Future Augmentation	63,147		63,147
	3.	Former Members Without Vested Rights	2,993		2,993
	4.	Annuitants in MPRIF	2,123,548		2,123,548
	5.	Recipients Not in MPRIF	164,407		164,407
	6.	Total	\$6,782,973	\$1,343,020	\$5,439,953
В.	DETE	ERMINATION OF UNFUNDED ACTUAR AAL (A6)	IAL ACCRUED LIAB	ILITY (UAAL)	\$5,439,953
	2.	Current Assets (Table 1, F6	)		3,978,110
	3.	UAAL (B1-B2)			\$1,461,843
С.	DETE 1.	ERMINATION OF SUPPLEMENTAL CO Present Value of Future Pay the Amortization Date of Ju	rolls Through		\$53,089,916
	2.	Supplemental Contribution R	ate (B3/C1)		2.75%

## CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) (DOLLARS IN THOUSANDS)

## YEAR ENDING JUNE 30, 1992

Α.	UAAL AT BEGINNING OF YEAR	\$1,418,367
В.	CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
	<ol> <li>Normal Cost and Expenses</li> <li>Contribution</li> <li>Interest on A, B1 and B2</li> </ol>	\$152,092 (210,858) 118,064
	4. Total (B1+B2+B3)	\$59,298
С.	EXPECTED UAAL AT END OF YEAR (A+B4)	\$1,477,664
D.	INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
	<ol> <li>Salary Increases</li> <li>Investment Return</li> <li>MPRIF Mortality</li> <li>Mortality of Other Benefit Recipients</li> <li>Other Items</li> </ol>	(\$64,063) (116,412) 9,946 37 154,671
	6. Total	(\$15,821)
Ε.	UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTION (C+D5)	\$1,461,843
F.	CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO PLAN AMENDMENTS	0
G.	CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
Н.	UAAL AT END OF YEAR (E+F+G)	\$1,461,843

## DETERMINATION OF CONTRIBUTION SUFFICIENCY (DOLLARS IN THOUSANDS)

## JULY 1, 1992

Α.	STAT	UTORY CONTRIBUTIONS - CHAPTER 353	Percent of Payroll	Dollar Amount
	1.	Employee Contributions	4.38%	\$107,637
	2.	Employer Contributions	4.72%	115,898
	3.	Total	9.10%	\$223,535
В.	•	IRED CONTRIBUTIONS - CHAPTER 356		
	1.	Normal Cost a. Retirement Benefits b. Disability benefits c. Survivors d. Deferred Retirement Benefits e. Refunds Due to Death or Withdrawal	4.10% 0.46% 0.28% 1.84% 0.23%	11,183 6,914
		f. Total	6.91%	\$169,678
	2.	Supplemental Contribution Amortization by July 1, 2020 of UAAL	2.75%	67,524
	3.	Allowance for Expenses	0.29%	7,121
	4.	Total	9.95%	\$244,323
С.	CONT (A3-	TRIBUTION SUFFICIENCY (DEFICIENCY) -B4)	-0.85%	(\$20,788)

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1992 is \$2,455,401.

#### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Interest: Pre-Retirement: 8.5% per annum

Post-Retirement: 5.0% per annum

Salary Increases: Reported salary for prior fiscal year, with new

hires annualized, increased 6.5% to current fiscal

year and 6.5% annually for each future year.

Mortality: Pre-Retirement:

Male - 1971 Group Annuity Mortality Table

male rates projected to 1984 by

Scale D

Female - 1971 Group Annuity Mortality Table

female rates projected to 1984 by

Scale D

Post-Retirement:

Male - Same as above Female - Same as above

Post-Disability:

Male - 1965 RRB rates Female - 1965 RRB rates

Retirement Age: Age 64 or if over age 64, one year from valuation

date. In addition, 50% of employees are assumed to

retire under the Rule of 90 when first eligible.

Separation: Graded rates based on experience as of June 30,

1990. Rates are shown in rate table.

Disability: Rates as shown in rate table.

Administrative and Prior year expenses expressed as percentage of

Investment Expenses: prior year payroll.

Return of All employees withdrawing after becoming eligible Contributions: for a deferred benefit take the larger of their

for a deferred benefit take the larger of their contributions accumulated with interest or the

value of their deferred benefit.

#### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Family Composition: 85% of male Members and 65% of female Members are

assumed to be married. Female is four years younger than male. Assume Members have no children.

Social Security: N/A

Accrued Liability:

Benefit Increases Payment of earnings on retired reserves in excess After Retirement: of 5% accounted for by 5% post-retirement assump-

tions.

Special Consideration: Married Members assumed to elect subsidized joint

and survivor form of annuity as follows:

Males - 30% elect 50% J&S option

45% elect 100% J&S option

Females - 15% elect 50% J&S option

15% elect 100% J&S option

Actuarial Cost Method: Entry Age Normal Actuarial Cost Method with normal

costs expressed as a level percentage of earnings. Under this method, Actuarial Gains (Losses) reduce (increase) the Unfunded Actuarial Accrued Liabili-

ty.

Asset Valuation Method: Cost Value plus one-third Unrealized Gains or

Losses.

Payment on the A level percentage of payroll each year to the Unfunded Actuarial statutory amortization date assuming payroll

increases of 6.5% per annum.

# PUBLIC EMPLOYEES RETIREMENT FUND SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

## SEPARATIONS EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000:

<u>Age</u>	<u>De</u> Male	eath <u>Female</u>	<u>Without Male</u>	drawal Female	<u>Disal</u> <u>Male</u>	oility Female	<u>Retir</u> Male	rement Female
20 21 22 23 24	5 5 5 5	2 2 2 3 3	2,542 2,277 2,050 1,854 1,684	2,913 2,666 2,450 2,259 2,091	9 9 9 10 10	9 9 9 10 10	0 0 0 0	0 0 0 0
25 26 27 28 29	6 6 7 7	3 3 3 4	1,536 1,406 1,291 1,189 1,099	1,942 1,808 1,688 1,580 1,482	10 10 10 11	10 10 10 11	0 0 0 0	0 0 0 0
30 31 32 33 34	7 8 8 9 10	4 4 4 5 5	1,018 945 880 821 767	1,394 1,313 1,239 1,172 1,110	11 11 11 12 12	11 11 11 12 12	0 0 0 0	0 0 0 0
35 36 37 38 39	10 11 12 13 14	5 6 6 7 7	719 675 634 597 563	1,053 1,000 952 907 865	12 12 13 13 14	12 12 13 13	0 0 0 0	0 0 0 0
40 41 42 43 44	15 16 18 21 24	8 9 9 10 11	532 503 476 452 429	826 790 756 724 695	15 16 17 18 20	15 16 17 18 20	0 0 0 0	0 0 0 0
45 46 47 48 49	27 30 34 39 44	12 13 14 15	408 388 370 352 336	667 641 616 593 571	22 23 25 27 30	22 23 25 27 30	0 0 0 0	0 0 0 0

# PUBLIC EMPLOYEES RETIREMENT FUND SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

## SEPARATIONS EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000:

	De	eath		drawa]		oility		<u>rement</u>
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	49	18	321	550	33	33	0	0
51	54	20	316	531	36	36	0	0
52	60	21	310	513	40	40	0	0
53	65	23	270	495	45	45	0	0
54	72	25	230	487	51	51	0	0
55	78	27	195	478	58	58	. 0	0
56	85	30	150	410	66	66	0	0
57	92	33	100	362	76	76	0	0
58	100	37	50	210	88	88	0	0
59	110	41	20	50	102	102	0	0
60	121	46	0	0	118	118	0	0
61	133	52	Ö	Õ	136	136	0	0
62	146	58	Ŏ	Ö	157	157	0	0
63	160	65	ŏ	Ö	181	181	0	0
64	176	73	ŏ	Ö	208	208	10,000	10,000
65	195	81	0	0	0	0	0	0
66	219	90	Ö	Ö	Ō	Ō	0	0
67	243	99	Ŏ	Ö	Ö	Ö	0	0
68	270	109	Ŏ	ŏ	Ŏ	Ŏ	Ö	Ŏ
69	300	123	Ö	Ŏ	Ö	ŏ	Ŏ	Ö
70	334	140	0	0	0	0	0	0

## ACTIVE MEMBERS AS OF JUNE 30, 1992

					F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39									
40-44 45-49		2			1	9 22	31 302	20	43 344
50-54 55-59		1		1	1	9 13	507 519	216 357	733 891
60-64 65+						11 8	380 113	191 70	582 191
ALL		3		1	2	72	1,852	854	2,784
			AVE	RAGE ANN	UAL EARN	INGS			
					F SERVIC		05.00	20	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39									
40-44 45-49		38,008			13,297	28,127 42,841	33,549 35,537	35,036	32,151 35,975
50-54 55-59		24,209		51,240	51,931	33,371 28,293	33,956 31,384	34,924 35,184	34,259 32,876
60-64 65+						22,441 17,887	25,684 19,536	31,475 29,262	27,523 23,031
ALL		33,408		51,240	32,614	31,302	30,909	33,800	31,817
	PR I	OR FISCAL							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL		100		51	65	2,253	57,243	28,865	88,578

# PUBLIC EMPLOYEES RETIREMENT FUND SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54	3	5	1					9	
55-59 60-64	127 207	192 457	15 614					334 1,278	
65-69 70-74	141 12	658 74	1,663 1,621	177 1,133	1 48	2		2,640 2,890	
75-79 80-84	4	6 2	190 14	1,906 75	482 1,378	9 139	3	2,597 1,611	
85+	1	2	4	26	160	624	317	1,134	
ALL	495	1,396	4,122	3,317	2,069	774	320	12,493	
AVERAGE ANNUAL BENEFIT									
				EARS RETI					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54	14,441	7,526	15,593					10,727	
55-59 60-64	17,767 14,922	16,043 13,632	15,540 16,501					16,676 15,219	
65-69 70-74	12,332 6,791	10,443 11,071	14,478 11,389	15,472 11,194	9,658 8,092	10,497		13,423 11,230	
75-79 80-84	17,943	10,758 4,963	10,134 4,814	8,991 8,822	10,123 7,044	6,739 6,214	10,260	9,295 7,039	
85+	2,887	5,477	10,809	6,304	6,302	5,543	6,035	5,821	
ALL	14,714	12,266	13,332	10,064	7,730	5,690	6,075	10,813	
405		AL ANNUAL				YEARS RET	IRED		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL	
ALL	7,283	17,123	54,954	33,382	15,993	4,404	1,944	135,086	

## PUBLIC EMPLOYEES RETIREMENT FUND SURVIVORS AS OF JUNE 30, 1992

			YEARS	SINCE DE	ATH				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54	5 2	17 17	19 17	10 12	6 8	1	1	58 58	
55-59 60-64	<b>4</b> 1	19 39	49 118	23 42	16 39	6 15	3 12	120 266	
65-69 70-74	2 5	22 15	168 118	147 219	49 121	27 46	27 62	442 586	
75-79 80-84	11 15	22 30	55 72	171 74	225 159	76 102	109 138	669 590	
85+	12	45	101	106	145	154	264	827	
ALL	57	226	717	804	768	427	617	3,616	
	AVERAGE ANNUAL BENEFIT								
			YEAR	S SINCE D	EATH				
AGE	<1	1-4	5-9	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>	
<50 50-54	11,882 12,159	11,584 12,244	10,572 11,810	8,876 9,650	7,396 7,314	2,485	3,005 4,138	10,230 10,589	
55-59 60-64	10,081 10,750	9,660 8,063	12,288 12,897	9,091 8,610	7,303 7,390	4,434 4,212	3,635 3,237	9,912 9,770	
65-69 70-74	2,757 2,880	5,472 6,821	11,102 8,513	8,564 8,132	7,574 6,927	3,697 3,441	3,293 2,629	8,620 6,931	
75-79 80-84	2,341 3,701	4,584 4,221	5,772 5,473	7,543 5,902	6,250 6,353	3,904 5,151	2,859 3,045	5,603 5,032	
85+	2,839	4,473	4,999	5,186	5,805	5,940	4,788	5,212	
ALL	4,738	6,879	9,221	7,576	6,478	4,888	3,735	6,608	
	TOTAL	ANNUAL	BENEFIT (	IN THOUSAL	NDS) BY YI	EARS SINCE	DEATH	ALI	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
ALL	270	1,554	6,611	6,091	4,975	2,087	2,304	23,894	

# PUBLIC EMPLOYEES RETIREMENT FUND DISABILITY RETIREMENTS AS OF JUNE 30, 1992

			YEAR	RS DISABL	ED			A11
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>
<50 50-54	1 2	3 4	1 4	1 3	1			7 13
55-59 60-64	9 5	20 25	19 37	10 28	6 8			64 103
65-69 70-74		1	1	6	1		1	10
75-79 80-84								
85+								
ALL	17	53	62	48	16		1	197
			AVERAGE	ANNUAL E	BENEFIT			
				RS DISABI	.ED	20-24	<u>25+</u>	ALL
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u> 20-24</u>	<u> 25T</u>	
<50 50-54	3,359 25,583	16,531 15,358	9,781 12,593	4,522 16,137	5,993			10,464 16,260
55-59 60-64	22,012 11,194	16,049 12,011	17,139 15,141	8,582 11,973	6,558 9,168			15,155 12,865
65-69 70-74		7,188	10,428	11,780	4,650		4,936	9,788
75-79 80-84								
85+								
ALL	18,153	13,952	15,426	11,347			4,936	13,592
		TAL ANNUAL	BENEFIT		SANDS) BY	YEARS DIS 20-24	<u>25+</u>	ALL
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u> 20-24</u>		
ALL	308	739	956	544	123		4	2,677

## DETERMINATION OF CONTRIBUTION SUFFICIENCY (DOLLARS IN THOUSANDS)

JULY 1, 1992

Α.	STA <sup>*</sup>	UTORY CONTRIBUTION	DNS - CHAPTER 353	Percent of Payroll	Dollar <u>Amount</u>
	• • • • • • • • • • • • • • • • • • • •				
	1.	Employee Contril	outions	8.23%	\$7,764
	2.	Employer Contril	outions	10.73%	10,122
	3.	Total		18.96%	\$17,886
В.	REQ	IRED CONTRIBUTION	NS - CHAPTER 356		
	1.	Normal Cost			
		a. Retirement	Benefits	5.17%	\$4,879
		b. Disability	benefits	0.85%	802
		c. Survivors		1.41%	1,333
		d. Deferred Re	etirement Benefits	3.23%	3,050
		e. Refunds Du	e to Death or Withdrawal	0.00%	2
		f. Total		10.66%	\$10,066

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1992 is \$94,335.

#### SUMMARY OF PLAN PROVISIONS

Eligibility:

A public employee who is not covered under the Social Security Act. General exceptions are employees covered by other public funds and certain part-time employees.

Contributions

Member:

8.23% of salary.

Employer:

10.73% of salary.

Allowable Service:

Service during which Member contributions were deducted. May also include certain leaves of absence and military service.

Salary:

Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes lump-sum annual leave and sick leave payments and Workers' Compensation benefits.

Average Salary:

Average of the five highest successive years of salary. Average salary is based on all Allowable Service if less than five years.

#### RETIREMENT

Normal Retirement Benefit

Eligibility:

Age 65 and three years of Allowable Service. Proportionate Retirement Annuity is available at age 65 and one year of Allowable Service.

Amount:

2.5% of average salary for each year of Allowable Service.

Early Retirement Benefit

Eligibility:

Age 55 and three years of Allowable Service. Any age with 30 years of Allowable Service. Rule of 90: Age plus Allowable Service totals 90.

#### SUMMARY OF PLAN PROVISIONS

Amount:

The greater of

2% of average salary for each of the first 10 years of Allowable Service and 2.5% of average salary for each subsequent year with reduction of 0.25% for each month the Member is under age 65 at time of retirement or age 62 if 30 years of Allowable Service. No reduction if age plus years of Allowable Service totals 90;

OR

2.5% of average salary for each year of Allowable Service assuming augmentation to age 65 at 3% per year and actuarial reduction for each month the Member is under age 65.

Form of Payment:

Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

50% or 100% joint and survivor with bounce back feature without additional reduction (option canceled if Member is pre-deceased by beneficiary).

Benefit Increases:

Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). (Note: The MPRIF methodology for this increase will change effective 1/1/94.) A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Members receiving benefits for at least one full month but less than 12 full months will receive a partial increase.

TABLE 13A BASIC (Continued)

#### PUBLIC EMPLOYEES RETIREMENT FUND

#### SUMMARY OF PLAN PROVISIONS

Members retired under laws in effect before July 1, 1973 receive an additional lump-sum payment each year. In 1989, this lump-sum payment is the greater of \$25 times each full year of Allowable Service or the difference between \$400 times each full year of Allowable Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump-sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

#### DISABILITY

Disability Benefit

Eligibility:

Amount:

Total and permanent disability before normal retirement age with three years of Allowable Service.

Normal Retirement Benefit based on Allowable Service and average salary at disability without reduction for commencement before normal retirement age. Supplemental benefit of \$5 per month for each year under normal retirement age at commencement of disability (maximum of \$50 per month). The disability benefit is reduced to that amount which, when added to Workers' Compensation, does not exceed the salary the disabled Member received as of the date of the disability or the salary currently payable for the same employment position substantially similar to the one the person held as of the date of the disability, whichever is greater.

Payments stop if disability ceases or death occurs. Payments change to a retirement annuity at normal retirement age. Benefits may be reduced on resumption of partial employment.

#### SUMMARY OF PLAN PROVISIONS

Form of Payment:

Same as for retirement.

Benefit Increases:

Adjusted by PERA to provide same increase as MPRIF.

Retirement After Disability

Eligibility:

Normal retirement age.

Amount:

Any optional annuity continues. Otherwise, the larger of the disability benefit paid before normal retirement age or the normal retirement benefit available at normal retirement age, or an

available at normal retirement age, or an actuarially equivalent optional annuity.

Benefit Increases:

Same as for retirement.

DEATH

Surviving Spouse Benefit

Eligibility:

Active Member with 18 months of Allowable Service

or Member receiving a disability benefit.

Amount:

50% of salary averaged over last six months. Family benefit is maximum of 70% and minimum of 50% of average salary. Benefit paid until spouse's death but no payments while spouse is remarried prior to

July 1, 1991.

Surviving spouse optional annuity may be elected in

lieu of this benefit.

Surviving Dependent Child Benefit

Eliqibility:

Active Member with 18 months of Allowable Service

or Member receiving a disability benefit.

#### SUMMARY OF PLAN PROVISIONS

Amount:

10% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50% of salary and maximum of 70% of average salary. Benefits paid until child marries, dies, or attains age 18 (age 22 if full-time student.)

Surviving Spouse Optional Annuity

Eligibility:

Member or former Member who dies before retirement or disability benefits commence, if age 50 with three years of Allowable Service or any age with 30 years of Allowable Service. If the Member dies before age 55, benefits commence when Member would have qualified for early retirement.

Amount:

Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated.

Benefit Increases:

Adjusted by PERA to provide same increase as MPRIF.

Refund of Contributions

Eligibility:

Member dies before receiving any retirement benefits and survivor benefits are not payable.

Amount:

The excess of the Member's contributions with 6% interest over any disability or survivor benefits paid.

#### TERMINATION

Refund of Contributions

Eligibility:

Termination of public service.

Amount:

Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Services

of Allowable Service.

TABLE 13A BASIC (Continued)

# PUBLIC EMPLOYEES RETIREMENT FUND SUMMARY OF PLAN PROVISIONS

Deferred Benefit

Eligibility:

Three years of Allowable Service.

Amount:

Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January 1 of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

# ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS 0	F SERVIC					
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
<25 25-29	555 603	2,386 5,658	81 1,926	76					3,022 8,263	
30-34 35-39	586 570	6,639 7,425	4,288 4,979	2,039 3,463	127 1,876	105			13,679 18,418	
40-44 45-49	454 284	6,502 4,068	5,312 4,247	3,438 3,027	2,713 3,887	1,024 1,475	19 112	1	19,462 17,101	
50-54 55-59	170 98	2,390 1,472	2,636 1,734	2,444 1,746	1,996 1,720	1,407 1,493	226 210	35 114	11,304 8,587	
60-64 65+	41 24	876 476	1,062 443	1,065 377	1,082 313	1,099 314	179 35	78 16	5,482 1,998	
ALL	3,385	37,892	26,708	17,675	13,714	6,917	781	244	107,316	
AVERAGE ANNUAL EARNINGS										
				YEARS 0	F SERVIC	E				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
<25 25-29	8,074 10,034	11,742 16,667	17,474 21,582	20,644					11,222 17,365	
30-34 35-39	10,030 9,871	17,292 15,540	24,561 23,509	24,437 28,211	23,631 28,260	27,705			20,383 21,266	
40-44 45-49	9,612 10,376	15,605 15,665	21,799 20,319	28,509 24,647	32,972 21,613	32,784 35,942	30,714 36,197	27,592	22,775 21,559	
50-54 55-59	9,235 10,349	15,217 14,707	19,372 18,053	21,723 20,986	24,637 21,917	29,172 24,820	39,054 33,553	37,992 43,643	21,450 20,657	
60-64 65+	7,919 4,947	13,003 9,410	16,349 11,628	20,274 15,666	21,973 17,163	23,256 17,978	33,119 27,146	40,347 38,805	19,898 14,136	
ALL	9,564	15,612	21,429	24,834	25,193	28,741	35,068	41,396	20,659	
	PR I	OR FISCA	L YEAR E	ARNINGS	(IN MILL	IONS) BY	YEARS 0	F SERVIC	E	
<u>AGE</u>	<1	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
ALL	32	591	572	438	345	198	27	10	2,217	

# PUBLIC EMPLOYEES RETIREMENT FUND SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54		2						2			
55-59 60-64	261 644	387 1,205	15 488					663 2,337			
65-69 70-74	548 95	2,334 437	1,877 2,370	16 649	8			4,775 3,559			
75-79 80-84	12 1	60 10	462 58	1,391 145	132 590	26		2,057 830			
85+		5	13	24	61	232	6	341			
ALL	1,561	4,440	5,283	2,225	791	258	6	14,564			
AVERAGE ANNUAL BENEFIT											
				ARS RETIR							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54		9,210						9,210			
55-59 60-64	4,357 4,737	2,681 3,522	2,344 3,210					3,333 3,792			
65-69 70-74	4,118 2,315	3,299 2,764	3,631 3,064	10,186 3,915	4,164			3,547 3,165			
75-79 80-84	2,483 4,155	1,542 743	2,218 1,054	2,963 2,034	4,719 3,628	3,230		2,864 3,123			
85+		1,812	1,019	1,001	3,011	3,066	5,173	2,852			
ALL	4,291	3,225	3,176	3,211	3,768	3,083	5,173	3,347			
	•	TAL ANNUAL									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
ALL	6,698	14,319	16,778	7,144	2,980	795	31	48,745			

# PUBLIC EMPLOYEES RETIREMENT FUND SURVIVORS AS OF JUNE 30, 1992

				RS SINCE							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54	11 11	21 29	22 12	6 2	1			61 54			
55-59 60-64	14 11	34 55	41 97	9 18	1 2			99 183			
65-69 70-74	3 2	43 17	113 87	44 93	7 24	1 2		211 225			
75-79 80-84		2 1	28 2	67 16	57 56	3 11		157 86			
85+		1	2	4	12	9	1	29			
ALL	52	203	404	259	160	26	1	1,105			
AVERAGE ANNUAL BENEFIT											
ACE	.1	1 4		RS SINCE		00.04	05.	A11			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54	4,095 3,951	3,468 2,375	3,430 2,701	2,934 1,976	845			3,472 2,754			
55-59 60-64	2,676 2,827	3,943 3,031	3,703 3,509	2,235 3,029	1,152 3,681			3,481 3,279			
65-69 70-74	3,747 8,841	3,196 3,478	3,992 3,203	2,484 3,071	1,830 2,614	1,810 1,520		3,430 3,142			
75-79 80-84		601 879	2,397 938	2,741 3,796	2,952 3,400	2,477 3,508		2,724 3,401			
85+		2,312	4,790	2,175	2,860	2,855	1,222	2,822			
ALL	3,577	3,170	3,486	2,873	2,987	2,945	1,222	3,202			
	TOTAL	ANNUAL	BENEFIT (	IN THOUSA	NDS) BY Y	EARS SINC	E DEATH				
<u>AGE</u>	<u>&lt;1</u>	1-4	5-9	10-14	15-19	20-24	<u>25+</u>	ALL			
ALL	186	643	1,408	744	477	76	1	3,538			

# PUBLIC EMPLOYEES RETIREMENT FUND DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50	24	59	17	2 2				102			
50-54	15	38	20	2	2			77			
55-59	23	66	50	4	2			143 229			
60-64	26	95	87	19							
65-69 70-74	1	8	17	5	1	1		33			
75-79 80-84											
85+											
ALL	89	266	191	32	5	1		584			
AVERAGE ANNUAL BENEFIT											
			YEA	RS DISABL	ED						
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54	4,810 4,408	3,125 3,400	2,393 3,280	4,317 4,891	1,961			3,423 3,567			
55-59	5,386	4,027	2,947	3,464	·			3,852			
60-64	5,106	4,366	2,578	3,155	7,042			3,694			
65-69 70-74	3,485	3,687	3,266	1,734	289	2,916		3,042			
75-79 80-84											
85+											
ALL	4,963	3,848	2,793	3,153	3,659	2,916		3,632			
		AL ANNUAL				YEARS DISA	ABLED				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
ALL	441	1,023	533	100	18	2		2,121			
				26							

# DETERMINATION OF CONTRIBUTION SUFFICIENCY (DOLLARS IN THOUSANDS)

JULY 1, 1992

		TUTORY CONTRIBUTIONS CHARTER 252	Percent of Payroll	Dollar <u>Amount</u>
Α.	STA	TUTORY CONTRIBUTIONS - CHAPTER 353		
	1.	Employee Contributions	4.23%	\$99,873
	2.	Employer Contributions	4.48%	105,776
	3.	Total	8.71%	\$205,649
В.	REQ	JIRED CONTRIBUTIONS - CHAPTER 356	=========	
	1.	Normal Cost a. Retirement Benefits b. Disability benefits c. Survivors d. Deferred Retirement Benefits e. Refunds Due to Death or Withdrawal	4.05% 0.44% 0.24% 1.79% 0.24%	\$95,711 10,381 5,580 42,234 5,705
		f. Total	6.76%	\$159,611

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1992 is \$2,361,065.

#### SUMMARY OF PLAN PROVISIONS

Eligibility:

A public employee who is covered under the Social Security Act. General exceptions are employees covered by other public funds and certain part-time employees. City managers and persons holding elective office may choose to become Members.

Contributions

Member:

4.23% of salary.

Employer:

4.48% of salary.

Allowable Service:

Service during which Member contributions were deducted. May also include certain leaves of absence and military service.

Salary:

Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes lump-sum annual leave and sick leave payments and Workers' Compensation benefits.

Average Salary:

Average of the five highest successive years of salary. Average salary is based on all Allowable Service if less than five years.

#### RETIREMENT

Normal Retirement Benefit

Eligibility:

First hired before July 1, 1989:

Age 65 and three years of Allowable Service. Proportionate Retirement Annuity is available at age

65 and one year of Allowable Service.

First hired after June 30, 1989:

The greater of age 65 or the age eligible for full Social Security retirement benefits and three years of Allowable Service. Proportionate Retirement Annuity is available at normal retirement age and one year of Allowable Service.

Amount:

1.5% of Average salary for each year of Allowable

Service.

#### SUMMARY OF PLAN PROVISIONS

#### Early Retirement Benefit

Eligibility:

First hired before July 1, 1989:

Age 55 and three years of Allowable Service. Any age with 30 years of Allowable Service. Rule of 90: Age plus Allowable Service totals 90.

First hired after June 30, 1989:

Age 55 with three years of Allowable Service.

Amount:

First hired before July 1, 1989:

The greater of

1% of average salary for each of the first 10 years of Allowable Service and 1.5% of average salary for each subsequent year with reduction of 0.25% for each month the Member is under age 65 at time of retirement or age 62 if 30 years of Allowable Service. No reduction if age plus years of Allowable Service totals 90;

OR

1.5% of average salary for each year of Allowable Service assuming augmentation to age 65 at 3% per year and actuarial reduction for each month the Member is under age 65.

#### First hired after June 30, 1989:

1.5% of average salary for each year of allowable Service assuming augmentation to the age eligible for full Social Security retirement benefits at 3% per year and actuarial reduction for each month the Member is under the Social Security retirement age.

Form of Payment:

Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

50% or 100% joint and survivor with bounce back feature without additional reduction (option canceled if Member is pre-deceased by beneficiary).

TABLE 13B COORDINATED (Continued)

#### PUBLIC EMPLOYEES RETIREMENT FUND

#### SUMMARY OF PLAN PROVISIONS

Benefit Increases:

Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Benefit recipients receiving benefits for at least one full month but less than 12 full months will receive a partial increase.

Members retired under laws in effect before July 1, 1973 receive an additional lump-sum payment each year. In 1989, this lump-sum payment is \$25 times each full year of Allowable Service. In each following year, the lump-sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

#### DISABILITY

Disability Benefit

Eligibility:

Total and permanent disability before normal retirement age with three years of Allowable Service.

Amount:

Normal Retirement Benefit based on Allowable Service and average salary at disability without reduction for commencement before normal retirement age. The disability benefit is reduced to that amount which, when added to Workers' Compensation, does not exceed the salary the disabled Member received as of the date of the disability or the salary currently payable for the same employment position substantially similar to the one the person held as of the date of the disability, whichever is greater.

Payments stop if disability ceases or death occurs. Payments change to a retirement annuity at normal retirement age. Benefits may be reduced on resumption of partial employment.

#### **SUMMARY OF PLAN PROVISIONS**

Form of Payment:

Same as for retirement.

Benefit Increases:

Adjusted by PERA to provide same increase as

MPRIF.

Retirement After Disability

Eligibility:

Normal retirement age.

Amount:

Any optional annuity continues. Otherwise, the larger of the disability benefit paid before normal retirement age or the normal retirement benefit available at normal retirement age, or an actuarially equivalent optional annuity.

Benefit Increases:

Same as for retirement.

DEATH

Surviving Spouse Optional Annuity

Eliqibility:

Member or former Member who dies before retirement or disability benefits commence, if age 50 with three years of Allowable Service or any age with 30 years of Allowable Service. If the Member dies before age 55, benefits commence when Member would have qualified for early retirement.

Amount:

Survivor's payment of the 100% joint and survivor benefit the Member could have elected if

terminated.

Benefit Increases:

Adjusted by PERA to provide same increase as

MPRIF.

# PUBLIC EMPLOYEES RETIREMENT FUND SUMMARY OF PLAN PROVISIONS

Refund of Contributions

Eligibility:

Member dies before receiving any retirement benefits and survivor benefits are not payable.

Amount:

The excess of the Member's contributions with 6% interest over any disability or survivor bene-

fits paid.

**TERMINATION** 

Refund of Contributions

Eligibility:

Termination of public service.

Amount:

Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.

Deferred Benefit

Eligibility:

Three years of Allowable Service.

Amount:

Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January 1 of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

PUBLIC EMPLOYEES POLICE AND FIRE FUND

ACTUARIAL VALUATION REPORT

JULY 1, 1992



**Actuaries and Consultants** 

Suite 400 15700 Bluemound Road Brookfield, Wisconsin 53005 Telephone: 414/784-2250 Fax: 414/784-4116

November 13, 1992

Legislative Commission on Pensions and Retirement 55 State Office Building St. Paul, Minnesota 55155

RE: Public Employees Police and Fire Fund

Commission Members:

Pursuant to the terms of our Actuarial Services Contract, we have performed an actuarial valuation of the Fund as of July 1, 1992.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Public Employees Retirement Association.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on September 20, 1989.

Respectfully submitted,

Thomas K. Custis, F.S.A., M.A.A.A.

(

Consulting Actuary,

William V. Hogan, F.S.A., M.A.A.A.

Actuary

TKC/WVH/bh

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# REPORT HIGHLIGHTS (DOLLARS IN THOUSANDS)

			07/01/91 <u>Valuation</u>	07/01/92 _Valuation
Α.	CONT 1.	RIBUTIONS (Table 11) Statutory Contributions - Chapter 353 % of Payroll	20.00%	20.00%
	2.	Required Contributions - Chapter 356 % of Payroll	17.54%	18.60%
	3.	Sufficiency (Deficiency): (A.1 A.2.)	2.46%	1.40%
В.	FUND 1.	OING RATIOS Accrued Benefit Funding Ratio a. Current Assets (Table 1) b. Current Benefit Obligations (Table 8) c. Funding Ratio: (a/b)	\$839,560 \$732,911 114.55%	\$979,981 \$821,604 119.28%
	2.	Accrued Liability Funding Ratio a. Current Assets (Table 1) b. Actuarial Accrued Liability (Table 9) c. Funding Ratio: (a/b)	\$839,560 \$794,295 105.70%	\$979,981 \$888,826 110.26%
	3.	Projected Benefit Funding Ratio (Table 8) a. Current and Expected Future Assets b. Current and Expected Future Benefit Obligations c. Funding Ratio: (a/b)	\$1,529,005 \$1,355,807 112.77%	\$1,669,096 \$1,500,670 111.22%
С.	PLAN 1.	PARTICIPANTS Active Members a. Number (Table 3) b. Projected Annual Earnings c. Average Annual Earnings (Actual \$) d. Average Age e. Average Service	6,309 \$234,208 \$37,123 37.8 10.4	6,521 \$255,270 \$39,146 38.1 10.7
	2.	Others a. Service Retirements (Table 4) b. Disability Retirements (Table 5) c. Survivors (Table 6) d. Deferred Retirements (Table 7) e. Terminated Other Non-vested (Table 7) f. Total	1,130 93 359 165 112 1,859	1,191 93 379 187 120 1,970

#### **COMMENTARY**

#### <u>Purpose</u>

The purpose of this valuation is to determine the financial status of the Plan. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

#### Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 119.28%. The corresponding ratio for the prior year was 114.55%.

The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. For 1992 the ratio is 110.26%, which is an increase from the 1991 value of 105.70%.

The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 111.22% verifies that the current statutory contributions are sufficient.

#### Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes

recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gain and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets", the latter phrase will be used in the remainder of this report.

This Plan participates in the Minnesota Post Retirement Investment Fund (i.e. MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investments, (i.e. SBI), will determine each Plan's portion of the excess earnings for the January benefit increase as well as the Plan's allocated market share of MPRIF.

#### Actuarial Balance Sheet (Table 8)

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

For Active Members - salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.

For Non-active Members - the discounted value of benefits, including augmentation in cases where benefits have not commenced.

#### GASB Disclosure

The Current Benefit Obligation amounts in Table 8 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation".

The July 1, 1992 Pension Benefit Obligation reported in Table 8 is reformatted for GASB reporting purposes in the following table:

Retirees and beneficiaries currently receiving benefits and terminated	
employees not yet receiving benefits	\$279,420,902
Current Employees	
Accumulated employee contributions	\$144,479,276
including allocated investment income	
Employer-financed vested	394,384,030
Employer-financed nonvested	3,320,186
Total Pension Benefit Obligation	\$821,604,394
Net Assets Available for Benefits at Cost	\$963,565,085
Total Benefit Obligation less Assets	(\$141,960,691)
Funded Ratio	117.28%

#### Actuarial Cost Method (Table 9)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 9) to the actuarial balance sheet (Table 8) illustrates the two techniques for allocating liabilities of active Members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities, on the basis of service. The method used in Table 9 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 8 and line A6, column 1, of Table 9).

An Unfunded Actuarial Accrued Liability is computed under the Entry Age Normal Actuarial Cost Method by comparing the liabilities allocated to past service (Actuarial Accrued Liability) to the Current Assets. This amount, line B3, is funded over the remaining years to the amortization date by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 6.5% each year because that is the assumed rate of increase in payroll. Although the payment schedule will be adequate to amortize the existing unfunded, the lower payments in the earlier years will not be sufficient to cover the interest on the unfunded liability. After a few years, the annual payment will cover the interest and also repay a portion of the unfunded.

#### Sources of Actuarial Gains and Losses (Table 10)

The assumptions used in making the calculations using the Entry Age Normal Actuarial Cost Method are based on long-term expectations. Each year the actual experience will deviate from the long-term expectation. For a detailed analysis of the major components, refer to Table 10.

#### Contribution Sufficiency (Table 11)

This report determines the adequacy of Statutory Contributions by comparing the Statutory Contributions to the Required Contributions.

The Required Contributions, set forth in Chapter 356, consist of:

Normal costs based on the Entry Age Normal Actuarial Cost Method.

A Supplemental Contribution for amortizing any Unfunded Actuarial Accrued Liability.

An Allowance for Expenses.

Table 11 shows the Plan has a contribution sufficiency since the Statutory Contribution Rate is 20.00% compared to the Required Contribution Rate of 18.60%.

#### Changes in Actuarial Assumptions

The actuarial assumptions listed in Table 12 are the same as those used in the prior valuation.

Paragraph X.1.4 of the Actuarial Standards requires that the Actuarial Present Value of Compensation for purposes of determining the Normal Cost of the Fund be calculated assuming mid-year payments. Previously, beginning of year payments were assumed. This change in methodology results in an increase of 0.93% of payroll in the Normal Cost and a decrease in the Contribution Sufficiency of the Fund.

#### Changes in Plan Provisions

There were no changes in plan provisions since the prior valuation which impacted funding costs.

# ACCOUNTING BALANCE SHEET (DOLLARS IN THOUSANDS)

### JULY 1, 1992

Α.	ASSETS	<u>Market Value</u>	<u>Cost Value</u>
	<ol> <li>Cash, Equivalents, Short-term Securities</li> <li>Investments         <ul> <li>Fixed Income</li> <li>Equity</li> <li>Real Estate</li> </ul> </li> <li>Equity in Minnesota Post-Retirement         <ul> <li>Investment Fund (MPRIF)</li> </ul> </li> <li>Other</li> </ol>	\$12,920 232,684 501,280 34,827 233,026	\$12,920 226,483 457,134 35,927 233,026
В.	TOTAL ASSETS	\$1,014,833	\$965,586
С.	AMOUNTS CURRENTLY PAYABLE	\$2,020	\$2,020
D.	ASSETS AVAILABLE FOR BENEFITS  1. Member Reserves  2. Employer Reserves  3. MPRIF Reserves  4. Non-MPRIF Reserves	\$148,562 631,225 233,026 0	
	5. Total Assets Available for Benefits	\$1,012,812	\$963,565
Ε.	TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	\$1,014,833 ========	•
F.	DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
	<ol> <li>Cost Value of Assets Available for Benefits (D5)</li> <li>Market Value (D5)</li> <li>Cost Value (D5)</li> </ol>	\$1,012,812 963,565	\$963,565
	<ul><li>4. Market Over Cost: (F2-F3)</li><li>5. 1/3 of Market Over Cost: (F4)/3</li></ul>	\$49,247	16,416
	<ol> <li>Actuarial Value of Assets (F1+F5)</li> <li>(Same as "Current Assets")</li> </ol>		\$979,981

# CHANGE IN ASSETS AVAILABLE FOR BENEFITS (DOLLARS IN THOUSANDS)

### YEAR ENDING JUNE 30, 1992

		<u>Market Value</u>	<u>Cost Value</u>
Α.	ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$872,430	\$823,124
В.	OPERATING REVENUES		
	<ol> <li>Member Contributions</li> <li>Employer Contributions</li> <li>Investment Income</li> <li>MPRIF Income</li> <li>Net Realized Gain (Loss)</li> <li>Other</li> <li>Net Change in Unrealized Gain (Loss)</li> </ol>	\$19,217 28,766 97,543 18,985 0 1,934 (59)	\$19,217 28,766 97,543 18,985 0 1,934
	8. Total Revenue	\$166,386	\$166,445
c.	OPERATING EXPENSES		
	<ol> <li>Service Retirements</li> <li>Disability Benefits</li> <li>Survivor Benefits</li> <li>Refunds</li> <li>Expenses</li> <li>Other</li> </ol>	\$19,038 1,479 1,648 636 1,299 1,904	\$19,038 1,479 1,648 636 1,299 1,904
	7. Total Disbursements	\$26,004	\$26,004
D.	OTHER CHANGES IN RESERVES	0	0
Ε.	ASSETS AVAILABLE AT END OF PERIOD	\$1,012,812	\$963,565

TABLE 3

## ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE										
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL	
<25 25-29	96 170	110 513	317						206 1,000	
30-34 35-39	99 35	340 159	602 299	279 547	1 274	2			1,321 1,316	
40-44 45-49	16 6	57 32	161 70	229 127	534 186	139 304	60		1,136 785	
50-54 55-59	7	11 11	30 19	36 17	74 30	151 55	151 56	14 26	474 214	
60-64 65+		5 1	5	10	14 1	11 1	7 1	12 1	64 5	
ALL	429	1,239	1,503	1,245	1,114	663	275	53	6,521	
AVERAGE ANNUAL EARNINGS										
					F SERVIC		<u> </u>		*11	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL	
<25 25-29	19,568 21,634	26,067 31,703	35,511						23,038 31,198	
30-34 35-39	20,714 14,679	32,531 31,337	38,340 38,509	39,335 41,031	37,669 39,546	47,279			35,734 38,286	
40-44 45-49	17,183 23,682	27,717 28,391	36,612 34,635	40,330 37,877	41,394 40,654	41,786 43,533	44,456		39,523 40,444	
50-54 55-59	20,113	27,907 22,119	27,599 32,420	29,418 31,088	41,156 32,510	42,275 38,422	44,880 44,030	41,469 43,592	40,340 37,735	
60-64 65+		21,011 12,629	18,377	28,809	31,238 26,523	34,171 45,758	43,142 92,183	42,558 29,354	32,983 41,289	
ALL	20,230	30,937	37,064	39,631	40,417	42,316	44,742	42,529	36,757	
	PRI	OR FISCA	L YEAR E	ARNINGS	(IN THOU	SANDS) B	Y YEARS	OF SERVI	CE	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL	
ALL	8,678	38,330	55,707	49,340	45,024	28,055	12,304	2,254	239,692	

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SERVICE RETIREMENTS AS OF JUNE 30, 1992

			YE	ARS RETI				<del></del>
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	12	14						26
55-59 60-64	57 22	123 57	12 190	4				192 273
65-69 70-74	11	48 7	116 55	112 90	1 41	1		288 195
75-79 80-84			9 6	56 4	58 36	13 12	3	136 61
85+			1		1	11	7	20
ALL	103	249	389	266	137	37	10	1,191
			AVERAGE	ANNUAL I	BENEFIT			
			YE	ARS RETI				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	15,353	13,912						14,577
55-59 60-64	17,960 17,777	17,776 16,662	17,035 18,789	17,379				17,784 18,243
65-69 70-74	12,560 12,957	11,906 13,762	16,915 14,067	17,800 13,338	18,312 15,254	6,689		16,263 13,926
75-79 80-84			11,413 4,521	12,389 9,819	12,298 9,548	7,500 8,590	7,187	11,818 8,767
85+			9,806		33,980	8,077	4,845	8,327
ALL	16,992	16,059	17,095	15,025	12,662	8,003	5,548	15,518
		TAL ANNUAL			SANDS) BY			AI I
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	1,750	3,998	6,649	3,996	1,734	296	55	18,481

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SURVIVORS AS OF JUNE 30, 1992

				RS SINCE						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
<50 50-54	4 2	11 5	17 3	7 5	3	2		42 17		
55-59 60-64	1	4 4	12 16	10 12	6 7	1	1	33 42		
65-69 70-74	1	2 1	15 7	20 21	11 17	10 3	2 4	61 53		
75-79 80-84	1	2 1	6 4	11 8	17 7	6 16	6 6	48 43		
85+	2	2	7	9	6	4	10	40		
ALL	11	32	87	103	74	42	30	379		
AVERAGE ANNUAL BENEFIT										
				RS SINCE						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
<50 50-54	21,841 9,222	15,564 18,551	13,704 13,800	11,041 13,264	8,524	3,190		14,152 13,253		
55-59 60-64	2,504	14,065 8,809	14,093 12,298	11,055 9,940	9,652 7,080	2,354	2,244 2,349	12,003 9,716		
65-69 70-74	5,164	8,311 3,946	9,303 8,743	9,815 9,331	7,452 8,043	3,804 5,234	2,334 2,688	7,907 8,005		
75-79 80-84	4,720	5,387 4,141	5,967 7,074	8,041 7,893	7,399 4,327	2,861 4,548	4,221 2,568	6,319 5,088		
85+	3,602	6,463	4,550	5,390	4,918	3,058	3,788	4,503		
ALL	11,400	12,621	10,770	9,377	7,261	3,920	3,288	8,530		
	TOTAL	. ANNUAL	BENEFIT (	N THOUSA	NDS) BY Y	EARS SINC	E DEATH			
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL		
ALL	125	403	936	965	537	164	98	3,232		

# PUBLIC EMPLOYEES POLICE AND FIRE FUND DISABILITY RETIREMENTS AS OF JUNE 30, 1992

	YEARS DISABLED										
<u>AGE</u>	<1	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50	9 2	25	19	5 5	2 2			60 29			
50-54	2	9	11	5							
55-59 60-64		2			2			4			
65-69 70-74											
75-79 80-84											
85+											
ALL	11	36	30	10	6			93			
			AVERAG	E ANNUAL	BENEFIT						
				ARS DISAB							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54	15,186 15,201	15,409 17,674	14,059 13,986	14,520 16,425	9,339 13,990			14,672 15,635			
55-59 60-64		21,393			15,472			18,433			
65-69 70-74											
75-79 80-84											
85+											
ALL	15,189	16,308	14,032	15,473	12,934			15,134			
	T01	TAL ANNUAL	BENEFIT	(IN THOU	SANDS) BY	YEARS DIS	ABLED				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
ALL	167	587	420	154	77			1,407			
				10							

# PUBLIC EMPLOYEES POLICE AND FIRE FUND RECONCILIATION OF MEMBERS

			Termi	nated
		Actives	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	6,309	165	112
В.	ADDITIONS	411	42	43
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(73) (15) (4) 0 (39) (36) (29) 0	(11) (1) 0 0 0 0 0 0 (3)	(5) 0 0 0 0 (24) 0 (11)
D.	DATA ADJUSTMENTS	(3)	(5)	5
	Vested Non-Vested	5,600 921		
Ε.	TOTAL ON JUNE 30, 1992	6,521	187	120
			Recipients	
		Retirement <u>Annuitants</u>	Disabled	Survivors
Α.	ON JUNE 30, 1991	1,130	93	359
В.	ADDITIONS	103	14	25
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	(30) 0 0	(6) (1) 0 0	0 (8) 0
D.	DATA ADJUSTMENTS	(12)	(7)	3
E.	TOTAL ON JUNE 30, 1992	1,191	93	379

# ACTUARIAL BALANCE SHEET (DOLLARS IN THOUSANDS)

JULY 1, 1992

Α.	CURRI	\$979,981					
В.	EXPE( 1. 2.		\$77,271 611,844				
	3.	\$689,115					
		Total Expected Future Assets					
С.	TOTAL	L CURRENT AND EXPECTED FUTURE	E ASSETS		\$1,669,096		
D.		ENT BENEFIT OBLIGATIONS	Non-Vested	<u>Vested</u>	Total		
	1.	Benefit Recipients a. Retirement Annuities b. Disability Benefits c. Surviving Spouse and Child Benefits		\$215,944 15,805 37,318	\$215,944 15,805 37,318		
		Deferred Retirements With Future Augmentation		10,216	10,216		
		Former Members Without Vested Rights		139	139		
		Active Members  a. Retirement Annuities  b. Disability Benefits  c. Survivor's Benefits  d. Deferred Retirements  e. Refund Liability Due  to Death or Withdrawal	2,603 52,721 58,519 717 0	392,994 0 0 34,552 77	395,597 52,721 58,519 35,270 77		
	5.	Total Current Benefit Obligations	\$114,560	\$707,044	\$821,604		
Ε.	EXPEC	TED FUTURE BENEFIT OBLIGATIO	NS		\$679,066		
F.	TOTAL	CURRENT AND EXPECTED FUTURE	BENEFIT OBLIGATI	IONS	\$1,500,670		
G.	CURRE	NT UNFUNDED ACTUARIAL LIABIL	ITY (D5-A)		(\$158,377)		
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C) (\$168,426						

# DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) AND SUPPLEMENTAL CONTRIBUTION RATE (DOLLARS IN THOUSANDS)

### JULY 1, 1992

Α.		ERMINATION OF ACTUARIAL	Actuarial Present Value of Projected Benefits (1)	Actuarial Present Value of Future Normal Costs (2)	Actuarial Accrued Liability (3)=(1)-(2)			
	ACCI 1.	RUED LIABILITY (AAL) Active Members a. Retirement Annuities b. Disability Benefits c. Survivor's Benefit d. Deferred Retirements e. Refunds Due to Death or Withdrawal	\$927,984 109,578 118,552 64,994	\$420,521 67,561 72,299 51,093 369	\$507,463 \$42,017 \$46,253 \$13,901 (\$228)			
		f. Total	\$1,221,249	\$611,844	\$609,405			
	2.	Deferred Retirements With Future Augmentation	10,216		10,216			
	3.	Former Members Without Vested Rights	139		139			
	4.	Annuitants in MPRIF	233,026		233,026			
	5.	Recipients Not in MPRIF	36,040		36,040			
	6.	Total	\$1,500,670	\$611,844	\$888,826			
В.	DETE	DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) 1. AAL (A6)						
	2.	Current Assets (Table 1, F6	)		979,981			
	3.	UAAL (B1-B2)			(\$91,155)			
С.	DETE 1.	RMINATION OF SUPPLEMENTAL COMPresent Value of Future Payment the Amortization Date of Ju	rolls Through		\$5,519,364			
	2.	Supplemental Contribution Ra	ate (B3/C1)		0.00%			

# CHANGES IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL) (DOLLARS IN THOUSANDS)

### YEAR ENDING JUNE 30, 1992

Α.	UAAL AT BEGINNING OF YEAR	(\$45,265)
В.	CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
	<ol> <li>Normal Cost and Expenses</li> <li>Contribution</li> <li>Interest on A, B1 and B2</li> </ol>	\$41,086 (47,983) (4,141)
	4. Total (B1+B2+B3)	(\$11,038)
С.	EXPECTED UAAL AT END OF YEAR (A+B4)	(\$56,303)
D.	INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
	<ol> <li>Salary Increases</li> <li>Investment Return</li> <li>MPRIF Mortality</li> <li>Mortality of Other Benefit Recipients</li> <li>Other Items</li> </ol>	(\$6,424) (43,008) 1,492 (1,078) 14,166
	6. Total	(\$34,852)
Ε.	UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTION (C+D5)	(\$91,155)
F.	CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO PLAN AMENDMENTS	0
G.	CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
Н.	UAAL AT END OF YEAR (E+F+G)	(\$91,155)

# DETERMINATION OF CONTRIBUTION SUFFICIENCY (DOLLARS IN THOUSANDS)

JULY 1, 1992

Α.	STAT	UTORY CONTRIBUTIONS - CHAPTER 353	Percent of Payroll	Dollar <u>Amount</u>
	1.	Employee Contributions	8.00%	\$20,422
	2.	Employer Contributions	12.00%	30,632
	3.	Total	20.00%	\$51,054
В.	1.	Normal Cost a. Retirement Benefits b. Disability benefits c. Survivors d. Deferred Retirement Benefits e. Refunds Due to Death or Withdrawal	12.46% 1.99% 2.16% 1.43% 0.01%	3,650 27
	2.	f. Total Supplemental Contribution Amortization	18.05%	\$46,074 0 0
		by July 1, 2020 of UAAL		
	3.	Allowance for Expenses	0.55%	1,404
	4.	Total	18.60%	\$47,478
С.	CONT (A3-	RIBUTION SUFFICIENCY (DEFICIENCY) B4)	1.40%	\$3,576

Note: Projected Annual Payroll for Fiscal Year Beginning on July 1, 1992 is \$255,270.

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Interest:

Pre-Retirement: 8.5% per annum Post-Retirement: 5% per annum

Salary Increases:

Reported salary for prior fiscal year, with new hires annualized, increased 6.5% to current fiscal year and 6.5% annually for each future year.

Mortality:

Pre-Retirement:

Male - 1971 Group Annuity Mortality Table male rates projected to 1984 by Scale D

Female - 1971 Group Annuity Mortality Table female rates projected to 1984 by Scale D

Post-Retirement:

Male - Same as above Female - Same as above

Post-Disability:

Male - 1965 RRB rates Female - 1965 RRB rates

Retirement Age:

Age 60, or if over age 60, one year from the valuation

date.

Separation:

Graded rates based on plan experience as of June 30,

1989. Rates are shown in rate table.

Disability:

Rates as shown in rate table.

**Expenses:** 

Prior year expenses expressed as percentage of prior

year payroll.

Return of

Contributions:

All employees withdrawing after becoming eligible for a deferred benefit were assumed to take the larger of their contributions accumulated with interest or the

value of their deferred benefit.

Family Composition:

85% of male Members and 65% of female Members are assumed to be married. Female is four years younger

than male. Assume Members have no children.

Social Security:

N/A

TABLE 12 (Continued)

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Benefit Increases After Retirement: Payment of earnings on retired reserves in excess of 5% accounted for by 5% post-retirement assumption.

Special Consideration:

Married Members assumed to elect subsidized joint and survivor form of annuity as follows:

Male - 40% elect 50% J&S option 45% elect 100% J&S option 15% elect 50% J&S option 15% elect 100% J&S option

Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method with normal costs expressed as a level percentage of earnings. Under this method, Actuarial Gains (Losses) reduce (increase) the Unfunded Actuarial Accrued Liability.

Asset Valuation Method: Cost Value plus one-third Unrealized Gains or Losses.

Payment on the Unfunded Actuarial Accrued Liability: A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 6.5% per annum.

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### SEPARATIONS EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000:

<u>Age</u>	<u>De</u> <u>Male</u>	eath <u>Female</u>	<u>Witho</u>	drawal <u>Female</u>	<u>Disat</u> Male	oility Female	<u>Retir</u> <u>Male</u>	rement Female
20 21 22 23 24	5 5 5 5	2 2 2 3 3	859 750 660 583 519	859 750 660 583 519	11 11 12 12 13	11 11 12 12 13	0 0 0 0	0 0 0 0
25 26 27 28 29	6 6 7 7	3 3 3 4	463 416 374 339 307	463 416 374 339 307	13 14 14 14 15	13 14 14 14 15	0 0 0 0	0 0 0 0
30 31 32 33 34	7 8 8 9 10	4 4 4 5 5	280 256 234 215 198	280 256 234 215 198	16 16 17 17 18	16 16 17 17 18	0 0 0 0	0 0 0 0
35 36 37 38 39	10 11 12 13 14	5 6 6 7 7	183 169 157 146 135	183 169 157 146 135	19 20 22 23 24	19 20 22 23 24	0 0 0 0	0 0 0 0
40 41 42 43 44	15 16 18 21 24	8 9 9 10 11	126 118 110 103 97	126 118 110 103 97	26 28 29 31 34	26 28 29 31 34	0 0 0 0	0 0 0 0
45 46 47 48 49	27 30 34 39 44	12 13 14 15 17	91 86 81 69 59	91 86 81 69 59	36 41 46 52 60	36 41 46 52 60	0 0 0 0	0 0 0 0

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### SEPARATIONS EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000:

	Death		Witho	<u>Withdrawal</u>		Disability		<u>Retirement</u>	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	
50	49	18	50	50	69	69	0	0	
51	54	20	39	39	80	80	0	0	
52	60	21	29	29	91	91	0	0	
53	65	23	22	22	104	104	. 0	0	
54	72	25	15	15	119	119	0	0	
ee	70	27	11	11	125	125	0	0	
55 56	78 05	27	11 7	11 7	135 152	135	0	0	
56 57	85 02	30 22			171	152	0	0	
57 50	92	33	5 3	5 3		171	-	0	
58	100	37	3	3 1	192	192	0	0	
59	110	41	ī	1	215	215	0	0	
60	121	46	0	0	0	0	10,000	10,000	
61	133	52	0	0	0	0	. 0	0	
62	146	58	0	0	0	0	0	0	
63	160	65	0	0	0	0	0	0	
64	176	73	0	0	0	0	0	0	
65	195	81	0	0	0	0	0	0	
66	219	90	0	0	0	0	0	-	
67	243	99	0	0	0		0	0	
			0	0	0	0		0	
68 60	270	109	0	0	0	0	0 0	0	
69	300	123	U	U	U	0	U	0	
70	334	140	0	0	0	0	0	0	

#### PUBLIC EMPLOYEES POLICE AND FIRE FUND

#### SUMMARY OF PLAN PROVISIONS

Eligibility:

All full-time and certain part-time, police officers and fire fighters, who are not contributing to any other local retirement fund.

Contributions

Member:

8% of salary.

Employer:

12% of salary.

Allowable Service:

Police and fire service during which Member contributions were deducted. May also include certain

leaves of absence and military service.

Salary:

Includes amounts deducted for deferred compensation or supplemental retirement plans, net income from fees and sick leave payments funded by the employer. Excludes lump-sum annual leave and sick leave payments and Workers' Compensation benefits.

Average Salary:

Average of the five highest successive years of salary. Average salary is based on all Allowable

Service if less than five years.

#### RETIREMENT

Normal Retirement Benefit

Eligibility:

Age 55 and three years of Allowable Service. Proportionate Retirement Annuity is available at age

65 and one year of Allowable Service.

Amount:

2.5% of average salary for each year of Allowable Service.

Early Retirement Benefit

Eligibility:

Age 50 and three years of Allowable Service.

Amount:

Normal Retirement Benefit based on Allowable Service and average salary at retirement date assuming augmentation to age 55 at 3% per year and actuarial reduction for each month the Member is under age

55.

### PUBLIC EMPLOYEES POLICE AND FIRE FUND

#### SUMMARY OF PLAN PROVISIONS

Form of Payment:

Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

50% or 100% joint and survivor with bounce back feature without additional reduction.

Benefit Increases:

Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). (Note: The MPRIF methodology for this increase will change effective 1/1/94.) A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Benefit recipients receiving benefits for at least one full month but less than 12 full months will receive a partial increase.

Members retired under law in effect before July 1, 1973 receive an additional lump-sum payment each year. In 1989, this lump-sum payment is the greater of \$25 times each full year of Allowable Service or the difference between \$400 times each full year of Allowable Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump-sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

DISABILITY

**Duty Disability Benefit** 

Eligibility:

Under age 55 and physically or mentally unable to perform duties as a police officer or fire fighter as a direct result of an act of duty.

#### PUBLIC EMPLOYEES POLICE AND FIRE FUND

#### SUMMARY OF PLAN PROVISIONS

Amount:

50% of average salary plus 2.5% of average salary for each year in excess of 20 years of Allowable Service. The disability benefit is reduced to that amount which when added to Workers' Compensation, does not exceed salary. Payments change to retirement annuity at age 55.

Non-Duty Disability Benefits

Eligibility:

Under age 55 and physically or mentally unable to perform duties as a police officer or fire fighter with one year of Allowable Service.

Amount:

Normal Retirement benefit based on Allowable Service (minimum of 15 years) and average salary at disability without reduction for commencement before age 55. Payments change to retirement annuity at age 55.

Form of Payment:

Same as for retirement.

Benefit Increases:

Adjusted by PERA to provide same increase as

MPRIF.

Retirement Benefits

Eliqibility:

Age 55

Amount:

Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 55 or the normal retirement benefit available at age 55, or an actuarially equivalent optional

annuity.

Benefit Increases:

Same as for retirement.

DEATH

Surviving Spouse Benefit

Eligibility:

Active Member with surviving spouse, married for

at least one year unless death in the line of

duty.

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SUMMARY OF PLAN PROVISIONS

Amount:

50% of salary averaged over last six months. Benefit paid until spouse's death but no payments while spouse is remarried prior to July 1, 1991.

Surviving Dependent Child Benefit

Eligibility:

Active Member with dependent child.

Amount:

10% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50% of salary and maximum of 70% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time student.)

Surviving Spouse Optional Annuity

Eliqibility:

Member who dies before termination if age 50 with three years of Allowable Service or any age with 30 years of Allowable Service. If the Member dies before age 55, benefits commence when Member would have been age 55 or as early as age 50 if qualified for early retirement except that benefits commence immediately if Member had 30 years of service.

Amount:

Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated. Alternatively, spouse may elect refund of deceased's contributions with interest if there are no dependent children.

Benefit Increases:

Adjusted by PERA to provide same increase as MPRIF.

# PUBLIC EMPLOYEES POLICE AND FIRE FUND SUMMARY OF PLAN PROVISIONS

#### **TERMINATION**

Refund of Contributions

Eligibility:

Termination of public service.

Amount:

Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years of Allowable Service.

Deferred Annuity

Eligibility:

Three years of Allowable Service.

Amount:

Benefit computed under law in effect at termination and increased by the following percentage compounded annually: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

POLICE AND FIRE CONSOLIDATION FUND

ACTUARIAL VALUATION REPORT

JULY 1, 1992



# MILLIMAN & ROBERTSON, INC.

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Suite 400 15700 Bluemound Road Brookfield, Wisconsin 53005 Telephone: 414/784-2250 Fax: 414/784-4116 Wendell Milliman, F.S.A. (1976) Stuart A. Robertson, F.S.A. Chairman Emeritus

November 13, 1992

Legislative Commission on Pensions and Retirement 55 State Office Building St. Paul, Minnesota 55155

RE: Police and Fire Consolidation Fund

Commission Members:

Pursuant to your request, we have performed an actuarial valuation of the Fund as of July 1, 1992.

The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Public Employees Retirement Association.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on September 20, 1989.

Respectfully submitted,

Thems of Cares

Thomas K. Custis, F.S.A., M.A.A.A.

Consulting Actuary

William V. Hogan, F.S.A., M.A.A.A.

Actuary

TKC/WVH/bh

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<u>CON:</u>	SOLIDATION ACCOUNTS MEMBERSHIP DATA AND FUNDING STATUS	
Α.	Albert Lea Police	46
В.	Anoka Police	55
С.	Buhl Police	64
D.		73
Ε.	Chisholm Police	82
F.	Crookston Fire	91
G.	Duluth Police	100
Н.	Faribault Fire	109
I.	Hibbing Fire	118
J.	Hibbing Police	127
Κ.	Mankato Fire	136
L.	Red Wing Fire	145
М.	Red Wing Police	154
N.	Richfield Police	163
0.	Rochester Fire	172
Р.	Rochester Police	181
Q.	St. Cloud Fire	190
R.	St. Louis Park Fire	199
S.	St. Louis Park Police	208
Τ.	West St. Paul Fire	217
U.	Winona Fire	226
٧.	Winona Police	235

# REPORT HIGHLIGHTS (ACTUAL DOLLARS)

Α.	CON	TRIBUTIONS (Table 11)	07/01/91 <u>Valuation</u>	07/01/92 Valuation
,,,		, ,	0.00%	0.000
	1.	Employee Contribution	8.00%	8.00%
	2.	Required Municipal Contribution	12.00%	12.00%
	3.	Additional Municipal Contribtuion	\$5,833,305	\$4,434,529
В.	FUNI 1.	DING RATIOS Accrued Benefit Funding Ratio a. Current Assets (Table 1) b. Current Benefit Obligations (Table 8) c. Funding Ratio: (a/b)	\$143,369,657 \$209,012,117 68.59%	\$178,169,280 \$222,984,370 79.90%
	2.	Accrued Liability Funding Ratio a. Current Assets (Table 1) b. Actuarial Accrued Liability (Table 9) c. Funding Ratio: (a/b)	\$143,369,657 \$201,885,085 71.02%	\$178,169,280 \$227,080,316 78.46%
	3.	Projected Benefit Funding Ratio (Table 8) a. Current and Expected Future Assets b. Current and Expected Future Benefit Obligations c. Funding Ratio: (a/b)	\$232,305,820 \$232,305,820 100.00%	\$258,228,570 \$258,228,570 100.00%
С.	PLAI 1.	N PARTICIPANTS Active Members a. Number (Table 3) b. Projected Annual Earnings c. Average Annual Earnings (Actual \$) d. Average Age e. Average Service	394 \$16,138,794 \$40,961 47.0 20.9	402 \$16,700,146 \$41,543 47.3 21.5
	2.	Others a. Service Retirements (Table 4) b. Disability Retirements (Table 5) c. Survivors (Table 6) d. Deferred Retirements (Table 7) e. Terminated Other Non-vested (Table 7) f. Total	421 26 185 6 1 639	459 30 194 14 0 697
D.	NUM	BER OF CONSOLIDATION ACCOUNTS	20	22

#### COMMENTARY

#### **Purpose**

The purpose of this valuation is to determine the financial status of the Plan. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

## Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

- The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 79.90%. The corresponding ratio for the prior year was 68.59%.
- The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. For 1992 the ratio is 78.46%, which is an increase from the 1991 value of 71.02%.
- The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 100.00% verifies that the current statutory contributions are sufficient.

## Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes

recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gain and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets", the latter phrase will be used in the remainder of this report.

This Plan participates in the Minnesota Post Retirement Investment Fund (i.e. MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investments, (i.e. SBI), will determine each Plan's portion of the excess earnings for the January benefit increase as well as the Plan's allocated market share of MPRIF.

### <u>Actuarial Balance Sheet (Table 8)</u>

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

- For Active Members - salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.

- For Non-active Members - the discounted value of benefits, including augmentation in cases where benefits have not commenced.

### GASB Disclosure

The Current Benefit Obligation amounts in Table 8 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation".

The July 1, 1992 Pension Benefit Obligation reported in Table 8 is reformatted for GASB reporting purposes in the following table:

Retirees and beneficiaries currently	
receiving benefits and terminated	
employees not yet receiving benefits	\$139,439,138
Current Employees	
Accumulated employee contributions	\$13,528,136
including allocated investment income	
Employer-financed vested	65,111,146
Employer-financed nonvested	4,905,950
Total Pension Benefit Obligation	\$222,984,370
Net Assets Available for Benefits at Cost	\$178,716,776
Total Benefit Obligation less Assets	\$44,267,594
Funded Ratio	80.15%

## Actuarial Cost Method and Actuarial Gains and Losses (Table 9, 10 and 11)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 9) to the actuarial balance sheet (Table 8) illustrates the two techniques for allocating liabilities of active Members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities, on the basis of service. The method used in Table 9 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 8 and line A6, column 1, of Table 9). These items are disclosed here as required by Subdivision 7 of Section 353A.09 of Minnesota Statutes, however they are not used in calculating contributions.

The contributions required to be paid are equal to the sum of the employee contributions plus the regular municipal contributions plus the additional municipal contributions as displayed in Table 11. The additional municipal contributions are equal to the amortization of the initial unfunded liability plus each year's gain or loss over a 15 year period. The current year (gain) or loss is determined as:

Actuarial Value of Projected Benefits,

less the present value of Future Employee Contributions, less the present value of future Regular Municipal Contributions, less the Valuation Assets,

less the current balance of the amortization bases from the prior year.

This calculation is outlined in Table 10.

# <u>Changes in Actuarial Assumptions</u>

The actuarial assumptions are the same as those used in the prior valuation.

# Changes in Plan Provisions

The following Accounts were added:

- Albert Lea Police
- Richfield Police

# ACCOUNTING BALANCE SHEET (ACTUAL DOLLARS)

Α.	ASSETS	<u>Market Value</u>	<u>Cost Value</u>
	1. Cash, Equivalents, Short-term Securities	\$1,373,641	\$1,373,641
	2. Investments a. Fixed Income b. Equity c. Real Estate	29,083,249 61,181,190 4,353,052	29,341,083 61,843,840 5,075,055
	3. Equity in Minnesota Post-Retirement Investment Fund (MPRIF)	78,131,229	78,131,229
	4. Other	1,292,419	1,292,419
В.	TOTAL ASSETS	\$175,414,780	\$177,057,267
c.	AMOUNTS CURRENTLY PAYABLE	(\$1,659,509)	(\$1,659,509)
D.	ASSETS AVAILABLE FOR BENEFITS  1. Member Reserves  2. Employer Reserves  3. MPRIF Reserves  4. Non-MPRIF Reserves  5. Total Assets Available for Benefits	\$14,047,362 84,895,698 78,131,229 0	\$14,047,362 86,538,185 78,131,229 0
-			
E.	TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	\$175,414,780 ==========	\$177,057,267 =========
F.	DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
	<ol> <li>Cost Value of Assets Available for Benefits (D5)</li> </ol>		\$178,716,776
	2. Market Value (D5) 3. Cost Value (D5)	\$177,074,289 178,716,776	
	<ol> <li>Market Over Cost: (F2-F3)</li> <li>1/3 of Market Over Cost: (F4)/3</li> </ol>	(\$1,642,487)	(547,496)
	<ol><li>Actuarial Value of Assets (F1+F5) (Same as "Current Assets")</li></ol>		\$178,169,280

# CHANGE IN ASSETS AVAILABLE FOR BENEFITS (ACTUAL DOLLARS)

## YEAR ENDING JUNE 30, 1992

		<u>Market Value</u>	Cost Value
Α.	ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$143,156,492	\$143,507,657
В.	OPERATING REVENUES		
	<ol> <li>Member Contributions</li> <li>Employer Contributions</li> <li>Investment Income</li> <li>MPRIF Income</li> <li>Net Realized Gain (Loss)</li> <li>Other</li> <li>Net Change in Unrealized Gain (Loss)</li> </ol>	12,453,556 6,066,584 0	\$1,331,074 8,725,906 12,453,556 6,066,584 0 17,180,721 (1)
	8. Total Revenue	\$44,466,518	\$45,757,840
С.	OPERATING EXPENSES		
	<ol> <li>Service Retirements</li> <li>Disability Benefits</li> <li>Survivor Benefits</li> <li>Refunds</li> <li>Expenses</li> <li>Other</li> </ol>	\$9,079,139 575,643 501,799 33,379 162,132 196,629	575,643 501,799 33,379
	7. Total Disbursements	\$10,548,721	\$10,548,721
D.	OTHER CHANGES IN RESERVES	0	0
Ε.	ASSETS AVAILABLE AT END OF PERIOD	\$177,074,289 ========	\$178,716,776 ========

TABLE 3

# ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE									
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u> 20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				2 30	23				2 53
40-44 45-49				16 7	60 25	15 65	24		91 121
50-54 55-59				2	3	27 3	48 15	7 16	87 34
60-64 65+							2	12	14
ALL				57	111	110	89	35	402
			AVE	RAGE ANN	UAL EARN	INGS			
					F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				40,354 38,904	43,610				40,354 40,946
40-44 45-49				39,041 34,725	41,052 39,884	43,235 42,265	44,505		41,058 41,781
50-54 55-59				43,385	31,269	41,390 42,295	41,341 40,798	45,770 46,432	41,412 43,581
60-64 65+							36,371	41,689	40,929
ALL				38,637	41,055	42,183	41,991	44,673	41,542
					(IN THOU	ISANDS) B	Y YEARS	OF SERVI	CE
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
ALL				2,202	4,557	4,640	3,737	1,563	16,699

MILLIMAN & ROBERTSON, INC.

POLICE AND FIRE CONSOLIDATION FUND SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS RETIRED							
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	3	21	3	3	1			31
55-59 60-64	7 10	18 5	36 47	4 42	4 5	1		70 110
65-69 70-74		9	24 3	29 22	36 19	8 7	2 4	108 55
75-79 80-84				9	11 6	8 5	17 13	45 24
85+		1			3	3	9	16
ALL	20	54	113	109	85	33	45	459
AVERAGE ANNUAL BENEFIT								
ACE		1-4	<u>YE</u> 5-9	ARS RETIF 10-14	RED 15-19	20-24	<u>25+</u>	ALL
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-5</u>	10-14	15 15	<u> 20 24</u>	<u> </u>	
<50 50-54	16,993	18,107	15,674	16,556	16,263			17,554
55-59 60-64	24,695 23,934	20,643 23,801	17,878 19,865	17,094 18,666	17,522 17,685	6,244 18,841		19,040 19,848
65-69 70-74		25,387	20,740 22,439	19,185 18,800	19,042 19,168	11,248 18,997	10,733 16,244	19,255 18,965
75-79 80-84				17,564	19,039 14,109	18,524 18,266	15,003 18,238	17,128 17,212
85+		21,869			16,865	15,361	14,385	15,501
ALL	23,160	20,763	19,375	18,625	18,461	16,171	15,735	18,768
	T0 <sup>-</sup>	TAL ANNUAL	BENEFIT	(IN THOU	SANDS) BY	YEARS RE	TIRED	
AGE	<u>&lt;1</u>	1-4	5-9	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	463	1,121	2,189	2,030	1,569	534	708	8,615

MILLIMAN & ROBERTSON, INC.

POLICE AND FIRE CONSOLIDATION FUND SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54	2	6	3 3	4 3	1	1		16 7	
55-59 60-64		2 1	7 3	2	2 7	3	1 1	12 17	
65-69 70-74		2 1	7 5	3 4	4 6	6 3	2 5	24 24	
75-79 80-84		2 1	4 3	3	4	7 5	10 7	30 20	
85÷		1	3	4	7	7	22	44	
ALL	2	16	38	23	35	32	48	194	
			AVERAG	E ANNUAL	BENEFIT				
				RS SINCE					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>	
<50 50-54	17,992	14,048	7,496 11,464	5,506 9,376	8,028	15,073		10,800 11,085	
55-59 60-64		8,665 11,367	11,884 11,864	7,206	10,089 9,700	8,119	3,421 9,791	10,343 9,613	
65-69 70-74		12,390 9,480	10,214 9,988	10,377 10,446	12,489 8,058	8,083 9,617	9,905 4,945	10,236 8,464	
75-79 80-84		9,431 8,811	9,796 8,658	9,641	10,771 8,168	6,460 7,611	7,750 7,528	8,426 7,910	
85+		15,073	9,404	8,306	6,872	7,897	6,883	7,530	
ALL	17,992	11,874	10,275	8,679	9,093	7,979	7,070	8,913	
			ENEFIT (A						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL	
ALL	35,984	189,984	390,450	199,617	318,255	255,328	339,360	1,729,122	

- 11 - MILLIMAN & ROBERTSON, INC.

# POLICE AND FIRE CONSOLIDATION FUND DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED								
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	1 2	7 4	7 2	5	1 1			21 9
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL	3	11	9	5	2			30
			AVERAGE	ANNUAL I	BENEFIT			
				ARS DISABI	LED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	20,930 20,438	19,049 19,977	16,993 16,263	16,738	11,409 18,841			17,539 19,128
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL	20,602		16,830		15,125			18,015
				(ACTUAL D	OLLARS) BY	YEARS DIS	SABLED	ALL
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
ALL	61,806	213,257	151,470	83,690	30,250			540,450
				_ 12 _				

MILLIMAN & ROBERTSON, INC.

# POLICE AND FIRE CONSOLIDATION FUND RECONCILIATION OF MEMBERS

			Termi	inated
		Actives	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	394	6	1
В.	ADDITIONS	31	8	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(16) (3) (2) 0 (3) (1) 0	0 (1) 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	2	1	(1)
	Vested Non-Vested	366 36		
Ε.	TOTAL ON JUNE 30, 1992	402	14	0
		Retirement	Recipients	
		<u>Annuitants</u>	<u>Disabled</u>	<u> Survivors</u>
Α.	ON JUNE 30, 1991	421	26	185
В.	ADDITIONS	51	8	26
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (11) 0 0	(2) (1) 0 0	0 (19) 0 0
D.	DATA ADJUSTMENTS	(2)	(1)	2
E.	TOTAL ON JUNE 30, 1992	459	30	194

# ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (100.00% of Table 1, F6)	\$178,169,280			
В.	EXPECTED FUTURE ASSETS				
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$12,485,135 18,727,703 48,846,452			
	4. Total Expected Future Assets				
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$258,228,570			
D.	CURRENT PENSION BENEFIT OBLIGATIONS				
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$139,439,138			
	2. Current Employees				
	a. Accumulated Employee Contributions \$13,528,136 Including Allocated Investment Income* b. Employer-Financed Vested 65,111,146 c. Employer-Financed Nonvested 4,905,950				
	d. Total	\$83,545,232			
	3. Total Pension Benefit Obligation	\$222,984,370			
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$35,244,200			
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$258,228,570			
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$44,815,090			
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0			

# ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

Α.	DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
	<ol> <li>Active Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	196 206	\$54,259,413 64,530,019	\$40,574,239 47,066,939
	c. Total	402	\$118,789,432	\$87,641,178
	<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 14	\$0 1,648,233	\$0 1,648,233
	c. Total	14	\$1,648,233	\$1,648,233
	<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	496 187	\$86,117,386 51,673,519	\$86,117,386 51,673,519
	c. Total	683	\$137,790,905	\$137,790,905
	4. Total a. Elected PERA Police and Fire* b. Elected Relief Association c. No Election (Greater Value)	692 187 220	\$140,376,799 51,673,519 66,178,252	\$126,691,625 51,673,519 48,715,172
	d. Total	1,099 =======	\$258,228,570 =========	\$227,080,316 ========
В.	DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABIL	ITY (UAAL)	
	1. AAL (A4) 2. Current Assets (100.00% of Table	1,F6)		\$227,080,316 178,169,280
	3. UAAL (B1-B2)			\$48,911,036
С.	NORMAL COST			\$3,356,190

<sup>\*</sup> Includes MPRIF Reserves of \$78,131,229.

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

A.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9) 1. Elected PERA Police and Fire 2. Elected Relief Association 3. No Election (Greater Value)	\$140,376,799 51,673,519 66,178,252
	4. Total	\$258,228,570
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$6,268,381 6,216,754
	3. Total	\$12,485,135
C.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$9,402,571 9,325,132
	3. Total	\$18,727,703
D.	CURRENT VALUE OF TOTAL ASSETS (100.00% of Table 1, F6)	\$178,169,280
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11, B.2.b + B.2.c + B.2.d + B.2.e)	\$85,241,738 (19,998,080)
	3. Total	\$65,243,658
F.	LOSS (GAIN) [A-B-C-D-E]	(\$16,397,206)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$1,616,671) (1,714,111) (695,865) (12,370,559)
	4. Total	(\$16,397,206)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$1,895,637)

# DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

			Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$1,336,012 *	
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid			
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>		12.00%	\$2,004,017 *
	E 1 131 1 1	Current	Last	Payment

	Established	Current <u>Balance</u>	Last <u>Payment</u>	Payment <u>Amount **</u>
a. b. c. d.	Initial 7/1/88 7/1/89 7/1/90 7/1/91	\$85,241,738 172,346 (3,586,653) (13,518,033) (3,065,740)	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005	\$8,830,077 23,742 (468,815) (1,687,401) (367,437)
f.	7/1/92	(16,397,206)	12/31/2006	(1,895,637)
g.	Total	\$48,846,452		\$4,434,529

# C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$7,774,558

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Interest: Pre-Retirement: 8.5% per annum

Post-Retirement:

PERA Police and Fire 5.0% per annum
Relief Association 8.5% per annum

Relief Association 8.5% per annum

Salary Increases: Reported salary for prior fiscal year, increased

6.5% to current fiscal year and 6.5% annually for

each future year.

Mortality: Pre-Retirement:

Male - 1971 Group Annuity Mortality Table

male rates projected to 1984 by

Scale D

Female - 1971 Group Annuity Mortality Table

female rates projected to 1984 by

Scale D

Post-Retirement:

Male - Same as above Female - Same as above

Post-Disability:

Male - 1965 RRB rates Female - 1965 RRB rates

Retirement Age:

PERA Police and Fire Age 60, or if over age 60, one year from the valua-

tion date.

Albert Lea Police Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

Anoka Police Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

Buhl Police Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

Chisholm Fire Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

Chisholm Police Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

# Retirement Age: (Continued)

• •	•
Crookston Fire	Age 60 and 20 years of service, or if over 60, one year from the valuation date.
Duluth Police	Age 58 and five years of service, or if over 58, one year from the valuation date.
faribault Fire	Age 50 and 20 years of service, or if over 50, one year from the valuation date.
Hibbing Fire	Age 58 and 20 years of service, or if over 58, one year from the valuation date.
Hibbing Police	Age 58 and 20 years of service, or if over 58, one year from the valuation date.
Mankato Fire	Age 50 and 20 years of service, or if over 50, one year from the valuation date.
Red Wing Fire	Age 58 and 20 years of service, or if over 58, one year from the valuation date.
Red Wing Police	Age 53 and 20 years of service, or if over 53, one year from the valuation date.
Richfield Police	Age 58 and 20 years of service, or if over 58, one year from the valuation date.
Rochester Fire	Age 56 and 20 years of service, or if over 56, one year from the valuation date.
Rochester Police	Age 60 and 20 years of service, or if over 60, one year from the valuation date.
St. Cloud Fire	Age 60 and 20 years of service, or if over 60, one year from the valuation date.
St. Louis Park Fire	Age 62 and 20 years of service, or if over 62, one year from the valuation date.
St. Louis Park Police	Age 50 and 10 years of service, or if over 50, one year from the valuation date.

#### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Retirement Age: (Continued)

West St. Paul Fire Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

Winona Fire Age 58 and 20 years of service, or if over 58, one

year from the valuation date.

Winona Police Age 50 and 20 years of service, or if over 50, one

year from the valuation date.

Separation: Graded rates based on PERA Police and Fire Fund

experience as of June 30, 1990. Rates are shown in

rate table.

**Disability:** Rates as shown in rate table.

Return of Contributions

**PERA Police and Fire:** All employees withdrawing after becoming eligible

for a deferred benefit were assumed to take the larger of their contributions accumulated with interest or the value of their deferred benefits.

**Relief Association:** If a relief association allows for the return of

contributions, the contributions are returned to the Member if the Member is not eligible for any

other benefit.

Family Composition: 85% of male Members and 65% of female Members are

assumed to be married. Female is four years younger than male. Assume Members have no children.

Social Security: N/A

Benefit Increases After Retirement

**PERA Police and Fire:** Payment of earnings on retired reserves in excess

of 5% accounted for by 5% post-retirement interest.

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Relief Association:

6.5% per annum. The following are exceptions:

Buhl Police - 3.5% per annum

Chisholm Police - 3% per annum

Chisholm Fire - 3% per annum

Red Wing Police - 6.5% per annum; increased in accordance with CPI increase if on active duty as of

January 1, 1974 or later.

Rochester Police - If hired before July 1, 1969, 6.5% per annum. If hired after June 30, 1969, 3.25% per annum.

Rochester Fire - If hired before July 1, 1969, 6.5% per annum. If hired after June 30, 1969, 3.25% per annum.

Special Consideration

PERA Police and Fire:

Married Members assumed to elect subsidized joint and survivor form of annuity as follows:

Males - 40% elect 50% J&S option 45% elect 100% J&S option

Females - 15% elect 50% J&S option 15% elect 100% J&S option

Relief Association:

N/A

Actuarial Cost Method:

Calculations of the Actuarial Accrued Liability and Normal Cost under the Entry Age Normal Actuarial Cost Method are disclosed in the report.

The Additional Municipal Contribution is derived by subtracting the following items from the Actuarial

Present Value of Projected Benefits:

Actuarial Cost Method: (Continued)

- Present Value of Future Employee Contributions
- Present Value of Future Regular Municipal Contributions
- Current Value of Assets
- Present Value of Additional Municipal Contributions (amount determined in the prior year)

Any excess (deficit) is a loss (gain) to be funded over 15 years and is added to the prior year Additional Municipal Contributions.

Asset Valuation Method:

Cost Value plus one-third Unrealized Gains or Losses.

# SEPARATIONS EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000:

<u>Age</u>	<u>De</u> Male	eath Female	<u>Witho</u>	irawal Female	<u>Disab</u> Male	oility Female	<u>Retir</u> <u>Male</u>	rement Female
20 21 22 23 24	5 5 5 5	2 2 2 3 3	859 750 660 583 519	859 750 660 583 519	11 11 12 12 13	11 11 12 12 13	0 0 0 0	0 0 0 0
25 26 27 28 29	6 6 7 7	3 3 3 4	463 416 374 339 307	463 416 374 339 307	13 14 14 14 15	13 14 14 14 15	0 0 0 0	0 0 0 0
30 31 32 33 34	7 8 8 9 10	4 4 4 5 5	280 256 234 215 198	280 256 234 215 198	16 16 17 17 18	16 16 17 17 18	0 0 0 0	0 0 0 0
35 36 37 38 39	10 11 12 13 14	5 6 6 7 7	183 169 157 146 135	183 169 157 146 135	19 20 22 23 24	19 20 22 23 24	0 0 0 0	0 0 0 0
40 41 42 43 44	15 16 18 21 24	8 9 9 10 11	126 118 110 103 97	126 118 110 103 97	26 28 29 31 34	26 28 29 31 34	0 0 0 0	0 0 0 0
45 46 47 48 49	27 30 34 39 44	12 13 14 15 17	91 86 81 69 59	91 86 81 69 59	36 41 46 52 60	36 41 46 52 60	0 0 0 0	0 0 0 0

# SEPARATIONS EXPRESSED AS THE NUMBER OF OCCURRENCES PER 10,000:

		eath		<u>lrawal</u>		bility	Reti	rement_
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	49	18	50	50	69	69	0	0
51	54	20	39	39	80	80	0	0
52	60	21	29	29	91	91	0	0
53	65	23	22	22	104	104	Ō	Ŏ
54	72	25	15	15	119	119	Ŏ	Ŏ
								_
55	78	27	11	11	135	135	0	0
56	85	30	7	7	152	152	0	0
57	92	33	5	5 3	171	171	0	0
58	100	37	3	3	192	192	0	0
59	110	41	1	1	215	215	0	0
60	121	46	0	0	0	0	10,000	10,000
61	133	52	Ŏ	Ŏ	Ŏ	ŏ	0	0
62	146	52 58	Ô	0	Ŏ	Ŏ	0	0
			0	0	Ö	Ö	0	Ö
63	160	65 73	-		0	0	0	0
64	176	73	0	0	U	U	U	U
65	195	81	0	0	0	0	0	0
66	219	90	0	0	0	0	0	0
67	243	99	Ö	Ö	Ō	Ō	0	0
68	270	109	Ŏ	Ŏ	Ŏ	ŏ	Ö	Ŏ
69	300	123	Ŏ	Ö	Ŏ	ŏ	ŏ	Ŏ
			-	-				
70	334	140	0	0	0	0	0	0

#### SUMMARY OF PERA POLICE AND FIRE PLAN PROVISIONS

Eligibility: All full-time and certain part-time police officers

and fire fighters who are not contributing to any

other local retirement fund.

Contributions

Member: 8% of salary.

Employer: 12% of salary.

Allowable Service: Police and fire service during which Member contri-

butions were deducted. May also include certain

leaves of absence and military service.

Salary: Includes amounts deducted for deferred compensation

or supplemental retirement plans, net income from fees and sick leave payments funded by the employer.

Excludes lump sum payments at separation and

Workers' Compensation benefits.

Average Salary: Average of the five highest successive years of

salary. Average salary is based on all Allowable

Service if less than five years.

RETIREMENT

Normal Retirement Benefit

Eligibility: Age 55 and three years of Allowable Service. Pro-

portionate Retirement Annuity is available at age 65

and one year of Allowable Service.

Amount: 2.5% of average salary for each year of Allowable

Service.

Early Retirement Benefit

Eligibility: Age 50 and three years of Allowable Service.

Amount: Normal Retirement Benefit based on Allowable Service

and average salary at retirement date assuming augmentation to age 55 at 3% per year and actuarial reduction for each month the Member is under age 55.

TABLE 13 (Continued)

### POLICE AND FIRE CONSOLIDATION FUND

#### SUMMARY OF PERA POLICE AND FIRE PLAN PROVISIONS

Form of Payment:

Life annuity with return on death of any balance of contributions over aggregate monthly payments. Actuarially equivalent options are:

50% or 100% joint and survivor with bounce back feature without additional reduction (option canceled if Member is pre-deceased by beneficiary).

Benefit Increases:

Benefits may be increased each January 1 depending on the investment performance of the Minnesota Post Retirement Investment Fund (MPRIF). A benefit recipient who has been receiving a benefit for at least 12 full months as of June 30 will receive a full increase. Benefit recipients receiving benefits for at least one full month but less than 12 full months will receive a partial increase.

Members retired under law in effect before July 1, 1973 receive an additional lump sum payment each year. In 1989, this lump sum payment is the greater of \$25 times each full year of Allowable Service or the difference between \$400 times each full year of Allowable Service and the sum of the benefits paid from any Minnesota public pension plan plus cash payments from the Social Security Administration for the preceding fiscal year July 1, 1988 through June 30, 1989. In each following year, the lump sum payment will increase by the same percentage increase that is applied to regular annuities paid from MPRIF.

#### DISABILITY

Duty Disability Benefit

Eligibility:

Under age 55 and physically or mentally unable to perform duties as a police officer or fire fighter as a direct result of an act of duty.

TABLE 13 (Continued)

#### POLICE AND FIRE CONSOLIDATION FUND

#### SUMMARY OF PERA POLICE AND FIRE PLAN PROVISIONS

Amount:

50% of average salary plus 2.5% of average salary for each year in excess of 20 years of Allowable Service. The disability benefit is reduced to that amount which when added to Workers' Compensation does not exceed salary. Payments revert to retirement annuity at age 55.

Non-Duty Disability Benefits

Eligibility:

Under age 55 and physically or mentally unable to perform duties as a police officer or fire fighter

with one year of Allowable Service.

Amount:

Normal Retirement benefit based on Allowable Service (minimum of 15 years) and average salary at disability without reduction for commencement before age 55. Payments revert to retirement

annuity at age 55.

Form of Payment:

Same as for retirement.

Benefit Increases:

Adjusted by PERA to provide same increase as

MPRIF.

Retirement Benefits

Eligibility:

Age 55

Amount:

Any optional annuity continues. Otherwise, the larger of the disability benefit paid before age 55 or the normal retirement benefit available at age 55, or an actuarially equivalent optional

annuity.

Benefit Increases:

Same as for retirement.

DEATH

Surviving Spouse Benefit

Eligibility:

Active Member with surviving spouse, married for at least one year unless death in the line of

duty.

TABLE 13 (Continued)

#### POLICE AND FIRE CONSOLIDATION FUND

#### SUMMARY OF PERA POLICE AND FIRE PLAN PROVISIONS

Amount:

50% of salary averaged over last six months. Benefit paid until spouse's death but no payments

while spouse is remarried.

Surviving Dependent Child Benefit

Eligibility:

Active Member with dependent child.

Amount:

10% of salary averaged over last six months for each child. Family benefit minimum (including spouse's benefit) of 50% of salary and maximum of 70% of salary. Benefits paid until child marries, dies, or attains age 18 (age 23 if full-time stu-

dent.)

Surviving Spouse Optional Annuity

Eligibility:

Member who dies before termination if age 50 with three years of Allowable Service or any age with 30 years of Allowable Service. If the Member dies before age 55, benefits commence when Member would have been age 55 or as early as age 50 if quali-

fied for early retirement.

Amount:

Survivor's payment of the 100% joint and survivor benefit the Member could have elected if terminated. Alternatively, spouse may elect refund of deceased contributions with interest if there are

no dependent children.

Benefit Increases:

Adjusted by PERA to provide same increase as

MPRIF.

TABLE 13 (Continued)

#### POLICE AND FIRE CONSOLIDATION FUND

#### SUMMARY OF PERA POLICE AND FIRE PLAN PROVISIONS

#### **TERMINATION**

Refund of Contributions

Eligibility:

Termination of public service.

Amount:

Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund if three or more years

of Allowable Service.

Deferred Annuity

Eligibility:

Three years of Allowable Service.

Amount:

Benefit computed under law in effect at termination and increased by the following annual percentage: 0% before 7/1/71; 5% from 7/1/71 to 1/1/81; and 3% thereafter until January 1 of the year following attainment of age 55 and 5% thereafter until the annuity begins. Amount is

payable as a normal or early retirement.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Eligibility: A Member of a local relief association consolidating

with PERA Police and Fire Fund who elects to retain benefit coverage in the local relief association

benefit plan.

Contributions

Member: 8% of contribution salary.

Employer: 12% of contribution salary.

Allowable Service: Any service rendered in the municipality in which

the Local relief association is located before the effective date of consolidation and any service rendered by a covered employee as a police officer or fire fighter in the municipality in which the

local relief association is located.

Salary

Benefit Salary:

Anoka Police Salary of a First Grade Patrol Officer.

Albert Lea Police Final salary for the rank held including educational

incentive pay but excluding overtime, holidays and

shift differential pay, etc.

Buhl Police Final salary.

Chisholm Fire Average salary for final six months.

Chisholm Police Average salary for final six months.

Crookston Fire Final salary.

Faribault Fire Salary of First Class Fire Fighter.

Duluth Police Salary of a First Grade Patrol Officer with 16 years

of service.

Hibbing Fire Average salary for final six months of employment.

Hibbing Police Average salary for final six months of employment.

## POLICE AND FIRE CONSOLIDATION FUND SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Benefit Salary: (Continued)

Mankato Fire Base pay of a First Class Fire Fighter.

Red Wing Fire Average annual salary for highest three paid years.

Red Wing Police Final salary.

Richfield Police Salary of the highest paid patrol officer including

college incentive pay.

Rochester Fire Base pay of a First Class Fire Fighter.

Rochester Police Salary of a First Grade Patrol Officer.

St. Cloud Fire Salary of a First Grade Fire Fighter with 25 or more

years of service.

St. Louis Park Fire Salary of the highest grade full-time fire fighter.

St. Louis Park Police Base pay of first grade patrolman during the second

month of previous fiscal year.

West St. Paul Fire Salary of a First Grade Fire Fighter.

Winona Fire Salary of a First Grade Fire Fighter.

Winona Police Base pay of first grade patrolman during the second

month of previous fiscal year.

Contribution Salary: Greater of Benefit Salary or actual salary. The

following are exceptions:

Albert Lea - Benefit Salary.

Buhl Police - Benefit Salary.

Hibbing Fire - Benefit Salary.

Hibbing Police - Benefit Salary.

Red Wing Fire - Actual Salary.

Red Wing Police - Benefit Salary.

Richfield Police - Base Salary.

## POLICE AND FIRE CONSOLIDATION FUND SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

#### **RETIREMENT**

#### Normal Retirement Benefit

#### Eligibility:

Albert Lea Police	Age 50 and 20 years or age 57 and 10 years of Allowable Service.
Anoka Police	Age 50 and 20 years of Allowable Service.
Buhl Police	Age 50 and 20 years of Allowable Service.
Chisholm Fire	Age 55 and 20 years of Allowable Service.
Chisholm Police	Age 55 and 20 years of Allowable Service.
Crookston Fire	Age 60 and 20 years of Allowable Service.
Duluth Police	Age 50 and 5 years of Allowable Service.
Faribault Fire	Age 50 and 20 years of Allowable Service.
Hibbing Fire	Age 55 and 20 years of Allowable Service.
Hibbing Police	Age 55 and 20 years of Allowable Service.
Mankato Fire	Age 50 and 20 years of Allowable Service.
Red Wing Fire	Age 50 and 20 years of Allowable Service.
Red Wing Police	Age 50 and 20 years of Allowable Service.
Richfield Police	Age 55 and 20 years of Allowable Service.
Rochester Fire	Age 55 and 20 years of Allowable Service or, if hired prior to July 1, 1969, Age 50 and 20 years of Allowable Service.
Rochester Police	Age 55 and 20 years of Allowable Service or, if hired prior to July 1, 1969, Age 50 and 20 years of Allowable Service.

## POLICE AND FIRE CONSOLIDATION FUND SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

#### Eligibility: (Continued)

St. Cloud Fire	Age 50 and 20 years of Allowable Service.
St. Louis Park Fire	Age 50 and 20 years of Allowable Service.
St. Louis Park Police	Age 50 and 20 years of Allowable Service.
West St. Paul Fire	Age 55 and 20 years of Allowable Service.
Winona Fire	Age 50 and 20 years of Allowable Service.
Winona Police	Age 50 and 20 years of Allowable Service.

#### Amount:

Crookston Fire

Albert Lea Police	2.5% of Benefit Salary for each of the first 20 years of Allowable Service.
Anoka Police	2.5% of Benefit Salary for each of the first 20 years of Allowable Service.
Buhl Police	4.25% of Benefit Salary for each of the first 20 years of Allowable Service and \$120 per year for each year of Allowable Service in excess of 20 years of Allowable Service but no more than 25 years of Allowable Service.
Chisholm Fire	50% of Benefit Salary, plus \$60 per year for each year of service in excess of 20, not to exceed \$300, plus 1/2% of Benefit Salary for each year of service in excess of 25 years.
Chisholm Police	50% of Benefit Salary, plus \$60 per year for each year of service in excess of 20, not to exceed \$300, plus 1/2% of Benefit Salary for each year of service in excess of 25 years.

50% of Benefit Salary plus 1.5% of Benefit Salary for each year of service after age 60.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

**Amount:** (Continued)

Duluth Police 1.9875% of Benefit Salary for each of the first 20

years of Allowable Service, 1.25% of Benefit Salary for the 21st year of Allowable Service, and 2.5% of Benefit Salary for each year of Allowable Service in excess of 21 years but not more than 25 years of

Allowable Service.

Faribault Fire 51.4% of Benefit Salary.

Hibbing Fire 2.65% of Benefit Salary for each of the first 20

years of Allowable Service and \$120 per year for each year of Allowable Service in excess of 20 years

but no more than 25 years.

Hibbing Police 2.65% of Benefit Salary for each of the first 20

years of Allowable Service and \$120 per year for each of allowable Service in excess of 20 years but

no more than 25 years.

Mankato Fire 50% of Benefit Salary, plus \$30 per year for each

year of service in excess of 20 years, not to exceed

\$300.

Red Wing Fire 2.0% of Benefit Salary for each of the first 25

years of Allowable Service and 1.0% of Benefit Salary for each year of Allowable Service in excess

of 25 years.

Red Wing Police 2.5% of Benefit Salary for each of the first 20

years of Allowable Service.

Richfield Police 2.4% of Benefit Salary in excess of first 20 years

of Allowable Service, 1.333% of Benefit Salary for each year of Allowable Service in excess of 20 years

but not in excess of 27 year.

Rochester Fire 46.67% of Benefit Salary plus 1.33% of Benefit

Salary for each year of service in excess of 20 up to seven years plus .5% of Benefit Salary for each

year of service in excess of 25.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

**Amount:** (Continued)

Rochester Police

2.333% of Benefit Salary for each of the first 20 years of Allowable Service, 1.333% of Benefit Salary for each year of Allowable Service in excess of 20 years but not in excess of 27 years and 0.5% of Benefit Salary for each year of Allowable Service in excess of 25 years.

St. Cloud Fire

2.333% of Benefit Salary for each of the first 20 years of Allowable Service, 1.333% of Benefit Salary for each year of Allowable Service in excess of 20 years but not in excess of 27 years and 0.5% of Benefit Salary for each year of Allowable Service in excess of 25 years.

St. Louis Park Police

23.34% of Benefit Salary plus 1.33% of Benefit Salary for each year of service in excess of 10, up to 17 years.

St. Louis Park Fire

2.6% of Benefit Salary for each of the first 20 years of Allowable Service and 1.0% of Benefit Service for each year of Allowable Service in excess of 20 years but not more than 30 years. If Members had 20 or more years of Allowable Service on June 16, 1985, the 2.6% in the above formula is replaced by 2.6175%.

West St. Paul Fire

2% of Benefit Salary for each of the first 20 years of Allowable Service; 1% of Allowable Service in excess of 20 years but not more than 24 years of Allowable Service; 3% of Benefit Salary for the 25th year of Allowable Service; and 1% of Benefit Salary for each year of Allowable Service in excess of 25 but not more than 30 years of Allowable Service.

Winona Fire

2.333% of Benefit Salary for each of the first 20 years of Allowable Service, 1.333% of Benefit Salary for each year of Allowable Service in excess of 20 years but not more than 28 years and 0.5% of Benefit Salary for each year of Allowable Service in excess of 25 years.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Amount: (Continued)

Winona Police 46.67% of Benefit Salary plus 1.33% of Benefit

Salary for each year of service in excess of 20 up to seven years plus .5% of Benefit Salary for each

year of service in excess of 25.

Form of Payment: Life annuity.

Benefit Increases:

Albert Lea Police Same increase that Benefit Salary is increased.

Anoka Police Same increase that Benefit Salary is increased.

Buhl Police 3.5% if there is any increase in the salary base.

Chisholm Fire 3% per annum.

Chisholm Police 3% per annum.

Duluth Police Same increase that Benefit Salary is increased.

Hibbing Fire One-half of the dollar amount that Benefit Salary

is increased.

Hibbing Police One-half of the dollar amount that Benefit Salary

is increased.

Mankato Fire Same increase that Benefit Salary is increased.

Red Wing Fire Same increase as the Consumer Price Index has

increased over the preceding year.

Red Wing Police Same increase as the Consumer Price Index has

increased over the preceding year.

Richfield Police Same increase that Benefit Salary is increased.

Rochester Police Same increase that Benefit Salary is increased

unless employed after July 1, 1969; then increase is one-half of the dollar increase granted to Members employed prior to July 1, 1969. The additional benefit of 0.5% of Benefit Salary for each year of Allowable Service in excess of 25 years is

not increased.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Benefit Increases: (Continued)

St. Cloud Fire Same increase that Benefit Salary is increased.

St. Louis Park Fire Same increase that Benefit Salary is increased.

West St. Paul Fire Same increase that Benefit Salary is increased.

Winona Fire Same increase that Benefit Salary is increased.

The additional benefit of 0.5% of Benefit Salary for each year of Allowable Service in excess of 25

years is not increased.

#### DISABILITY

Duty Disability Benefit

Eligibility: Not eligible for a retirement benefit and physi-

cally unfit to perform duties as a police officer or fire fighter as a direct result of an act of

duty.

Amount:

Albert Lea Police 50% of Benefit Salary.

Anoka Police The retirement benefit calculated using the Bene-

fit Salary as of the date of disability and the Allowable Service as of the date of disability with a minimum of 20 years of Allowable Service.

Payments cease at age 50.

Buhl Police The retirement benefit calculated using the Bene-

fit Salary as of the date of disability and the Allowable Service as of the date of disability with a minimum of 20 years of Allowable Service.

Payments cease at age 50.

Chisholm Fire The retirement benefit assuming 20 years of ser-

vice.

Chisholm Police The retirement benefit assuming 20 years of ser-

vice.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

#### Amount:

Crookston Fire 50% of Benefit Salary less amount of worker's

compensation being received.

Duluth Police The retirement benefit calculated using the Bene-

fit Salary as of the date of disability and the Allowable Service as of the date of disability with a minimum of 20 years of Allowable Service.

Payments cease at age 50.

Faribault Fire 51.4% of Benefit Salary.

Hibbing Fire First Class Disability: An amount equal to the

amount which would be paid under Minnesota

Workers' Compensation laws.

Second Class Disability: 75% of First Class Dis-

ability.

Third Class Disability: 50% of First Class Dis-

ability.

Hibbing Police \$1,440 per year.

Mankato Fire 50% of Benefit Salary.

Red Wing Fire 40% of Benefit Salary if less than 20 years of

Allowable Service plus 25 of Benefit Salary for each year of Allowable Service in excess of 20

years but not more than 25 years.

Red Wing Police The retirement benefit calculated using the Bene-

fit Salary as of the date of disability and the Allowable Service as of the date of disability with a minimum of 20 years of Allowable Service.

Payments cease at age 50.

Richfield Police 48% of Benefit Salary.

Rochester Fire 48% of Benefit Salary.

Rochester Police An amount equal to 48% of the Benefit Salary.

St. Cloud Fire An amount equal to 48% of the Benefit Salary.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Amount: (Continued)

St. Louis Park Fire 50% of Benefit Salary if less than 20 years of

Allowable Service. If 20 or more years of Allowable Service, an amount equal to the retirement

benefit.

St. Louis Park Police 48% of Benefit Salary.

West St. Paul Fire 40% of the Benefit Salary.

Winona Fire 42.667% of Benefit Salary.

Winona Police 48% of Benefit Salary.

Non-Duty Disability Benefits

Eligibility: Not eligible for a retirement benefit and physi-

cally unfit to perform duties as a police officer or fire fighter which did not arise as a direct

result of an act of duty.

Amount: Same as the Duty Disability Benefit. The follow-

ing are exceptions:

Red Wing Fire - 2% of Benefit Salary for each year

of Allowable Service with a minimum of 10% of Benefit Salary and a maximum of 40% of Benefit

Salary.

Form of Payment: Same as for retirement.

Benefit Increases: Same as for retirement.

Retirement Benefits

Eligibility: Age 50 and continued disability. The following

are exceptions:

Chisholm Fire - Age 55 and continued disability.

Chisholm Police - Age 55 and continued disability.

Crookston Fire - Age 60 and continued disability.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Eligibility: (Continued)

Hibbing Fire - Age 55 and continued disability.

Hibbing Police - Age 55 and continued disability.

Richfield Police - Age 55 and continued disabili-

ty.

West St. Paul Fire - Age 55 and continued disabil-

ity.

Amount: The larger of the disability benefit paid before

Eligibility or the retirement benefit available at

Eligibility.

Benefit Increases: Same as for retirement.

DEATH

Surviving Spouse Benefit

Eligibility: Any active, retired, disabled or deferred Member

with surviving spouse.

Amount:

Albert Lea Police 30% of Benefit Salary.

Anoka Police 30% of Benefit Salary.

Buhl Police 72.25% of Benefit Salary.

Chisholm Fire Greater of 25% of Benefit Salary or 50% of Benefit

Due Member.

Chisholm Police Greater of 25% of Benefit Salary or 50% of Benefit

Due Member.

Crookston Fire Greater of \$3,600 per year or 50% of benefit due

Member.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Amount: (Continued)

Duluth Police 25% of Benefit Salary.

Faribault Fire 30% of Benefit Salary.

Hibbing Fire 30% of Benefit Salary.

Hibbing Police 30% of Benefit Salary.

Mankato Fire 60% of Benefit due Member.

Red Wing Fire 25% of Benefit Salary.

Red Wing Police Equal to the service pension of disability person.

Richfield Police 24% of Benefit Salary.

Rochester Fire 24% of Benefit Salary.

Rochester Police 24% of Benefit Salary.

St. Cloud Fire 32% of Benefit Salary.

St. Louis Park Fire 40% of Benefit Salary if former Member had at

least 20 years of Allowable Service. If less than 20 years of Allowable Service, a prorata portion

of 40% of the Benefit Salary.

St. Louis Park Police 26.67% of Benefit Salary.

West St. Paul Fire 30% of Benefit Salary.

Winona Fire 24% of Benefit Salary.

Winona Police 24% of Benefit Salary.

Benefit Increases: Same as retirement. The following are exceptions:

Buhl Police - None

Hibbing Fire - None

Hibbing Police - None

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

### Surviving Dependent Child Benefit

Eligibility:

Any active, deferred, retired or disabled Member with a child younger than age 18. The following are exceptions:

Buhl Police - Any active, deferred, retired or disabled Member with a child younger than age 18, or if the child is a full-time student, younger than age 22.

Chisholm Fire - Any active, deferred, retired or disabled Member with a child younger than age 16.

Chisholm Police - Any active, deferred, retired or disabled Member with a child younger than age 16.

Duluth Police - Any active, deferred, retired or disabled Member with a child younger than age 18, or if the child is a full-time student, younger than age 22.

Hibbing Police - Any active, deferred, retired or disabled Member with a child younger than age 16.

#### Amount:

Albert Lea Police

10% of Base Salary.

Anoka Police

\$25 per month.

Buhl Police

\$1,500 per year if surviving spouse benefit is payable. If no surviving spouse benefit is payable, then surviving spouse benefit is payable divided in equal shares to all surviving children.

Chisholm Fire

\$1,500 per year.

Chisholm Police

\$1,500 per year.

Crookston Fire

\$180 per child per year up to \$1,260 if spouse is living or \$1,080 if spouse is dead.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

Amount: (Continued)

Duluth Police 10% of Benefit Salary.

Faribault Fire 10% of Benefit Salary.

Hibbing Fire 10% of Benefit Salary.

Hibbing Police 10% of Benefit Salary.

Mankato Fire 12.5% of Benefit Salary.

Red Wing Fire 8% of Benefit Salary.

Red Wing Police Determined by Board of Directors upon remarriage

of spouse.

Richfield Police 8% of Benefit Salary.

Rochester Fire 8% of Benefit Salary.

Rochester Police 8% of Benefit Salary.

St. Cloud Fire 5.3334% of Benefit Salary.

St. Louis Park Fire 5% of Benefit Salary.

St. Louis Park Police 5% of Benefit Salary.

West St. Paul Fire 5% of Benefit Salary.

Winona Fire 8% of Benefit Salary.

Winona Police 8% of Benefit Salary.

Benefit Increases: Same as retirement. The following are exceptions:

Anoka Police - None

Buhl Police- None

Hibbing Fire - None

Hibbing Police - None

Red Wing Police - None

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

#### TERMINATION

Refund of Contributions

Eligibility:

Termination of public service and not eligible for

any other benefits.

Amount:

Member's accumulated contributions without inter-

est. The following are exceptions:

Duluth Police - No refunds.

Rochester Police - 75% of the Member's accumulated

contributions without interest.

Richfield Police - 75% of the Member's accumulated

contributions without interest.

Winona Fire - 75% of the Member's accumulated

contributions without interest.

Deferred Annuity

Eligibility:

Any active Member with sufficient Allowable Ser-

vice for the retirement benefit, but does not meet the age requirement for the retirement benefit.

The following are exceptions:

St. Louis Park Fire - Prior to age 50 with minimum

of 10 years of Allowable Service.

Amount:

The amount calculated under the retirement benefit using the Allowable Service and Benefit Salary as

of date of termination. The following are excep-

tions:

St. Cloud Fire - The amount calculated under the retirement benefit using the Allowable Service and Benefit Salary as of date of termination. Benefit

cannot exceed 53.333% of Benefit Salary.

#### SUMMARY OF LOCAL POLICE OR FIRE FIGHTER PLAN PROVISIONS

**Amount:** (Continued)

West St. Paul Fire - For the first 20 years of Allowable Service, 0.5% of Benefit Salary for each year of Allowable Service rendered before October 1, 1965; 2% of Benefit Salary for each year of Allowable Service rendered after September 30, 1965; and 1% of Benefit Salary for each year of Allowable Service in excess of 20 years but not more than 52% of Benefit Salary.

Winona Fire - The amount calculated under the retirement benefit using the Allowable Service and Benefit Salary as of date of termination. Benefit cannot exceed 50.6667% of Benefit Salary.

Benefit Increases:

Same as retirement. The following are exceptions:

Red Wing Police - None

#### ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS 0	F SERVICE	E		<u>-</u>	
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				1					1
40-44 45-49				1 2	1	1 1			3 6
50-54 55-59							3		3
60-64 65+									
ALL				4	4	2	3		13
			AVE	RAGE ANN	IUAL EARN	INGS			
		,			F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34									24 600
35-39				34,698					34,698
40-44 45-49				37,735 33,641	32,293 35,129	37,988 39,659			36,005 35,388
50-54 55-59							40,228		40,228
60-64 65+									
ALL				34,929	34,420	38,824	40,228		36,594
	PRIOR	FISCAL Y	EAR E	ARNINGS (	(ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>		<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
ALL				139,716	137,680	77,648	120,684		475,722

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# ALBERT LEA POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			YE	EARS RETI	RED			
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54		1		1				2
55-59 60-64	1		<b>4</b> 1	1	1	1		7 2
65-69 70-74			1		1		1	3
75-79 80-84						1	1	2
85+								
ALL	1	1	6	2	2	2	2	16
			AVERAGE	E ANNUAL	BENEFIT			
			YI	EARS RETI	RED			
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54		16,682		17,062				16,872
55-59 60-64	20,705		17,062 16,682	17,062	17,062	6,244		15,517 18,694
65-69 70-74			16,682		17,062		4,415	12,720
75-79 80-84						17,062	3,281	10,172
85+								
ALL	20,705	16,682	16,935	17,062	17,062	11,653	3,848	14,891
			BENEFIT					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	20,705	16,682	101,610	34,124	34,124	23,306	7,696	238,256

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# ALBERT LEA POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

				RS SINCE				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54				1				1
55-59 60-64								
65-69 70-74				1		1	1	3
75-79 80-84						1		1
85+						1		1
ALL				2		3	1	6
			AVERAGE	E ANNUAL	BENEFIT			
805				RS SINCE		00.04		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54				10,237				10,237
55-59 60-64								
65-69 70-74				10,237		10,237	3,654	8,043
75-79 80-84						1 064		1 064
						1,064		1,064
85+						1,064		1,064
ALL				10,237		4,122	3,654	6,082
805		ANNUAL BEI	NEFIT (AC	TUAL DOL	LARS) BY	YEARS SIN		***
<u>age</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL				20,474		12,366	3,654	36,492

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# ALBERT LEA POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

				ARS DISAB				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>
<50 50-54		1						1
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		1						1
			AVERAG	E ANNUAL	BENEFIT			
			YE	ARS DISAB	LED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		18,049						18,049
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		18,049						18,049
AGE	TOT <1	AL ANNUAL 1-4	BENEFIT 5-9	(ACTUAL D 10-14	OLLARS) BY 15-19	YEARS DI 20-24	SABLED 25+	ALL
	<u>~1</u>	<del></del>	<u>J- 3</u>	10-14	10-19	20-27	<u> </u>	
ALL		18,049						18,049

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# ALBERT LEA POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		<u> Actives</u>	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	0	0	0
В.	ADDITIONS	13	1	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	13 0		
Ε.	TOTAL ON JUNE 30, 1992	13	l	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	0	0	0
В.	ADDITIONS	16	1	6
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	16	1	6

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (4.25% of Table 1, F6)	\$7,578,144
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$445,812 668,718 (844,571)
	4. Total Expected Future Assets	\$269,959
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$7,848,103
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$4,223,048
	2. Current Employees	
	a. Accumulated Employee Contributions \$654,906 Including Allocated Investment Income* b. Employer-Financed Vested 1,383,927 c. Employer-Financed Nonvested 0 d. Total	\$2,038,833
	3. Total Pension Benefit Obligation	\$6,261,881
E.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,586,222
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$7,848,103
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	(\$1,316,263)
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>Elected PERA Police and Fire</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	4 14	\$950,104 2,674,951	\$598,652 1,755,116
c. Total	18	\$3,625,055	\$2,353,768
<ol> <li>Former Members         <ul> <li>Elected PERA Police and Fire</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	0 1	\$0 49,345	\$0 <b>49</b> ,345
c. Total	1	\$49,345	\$49,345
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	22 7	\$3,236,299 937,404	\$3,236,299 937,404
c. Total	29	\$4,173,703	\$4,173,703
4. Total     a. Elected PERA Police and Fire*     b. Elected Relief Association     c. No Election (Greater Value)     d. Total	26 7 15 	\$4,186,403 937,404 2,724,296 	\$3,834,951 937,404 1,804,461 
D. DETERMINATION OF INSURED ACTUADIAN	1000050	=======================================	=======================================
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCEMEN LIABILI	IY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (4.25% of Table 1</li> </ol>	,F6)		\$6,576,816 7,578,144
3. UAAL (B1-B2)			(\$1,001,328)
C. NORMAL COST			\$119,121

<sup>\*</sup> Includes MPRIF Reserves of \$2,833,194.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9A) 1. Elected PERA Police and Fire 2. Elected Relief Association 3. No Election (Greater Value)	\$4,186,403 937,404 2,724,296
	4. Total	\$7,848,103
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$159,119 286,693
	3. Total	\$445,812
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$238,679 430,039
	3. Total	\$668,718
D.	CURRENT VALUE OF TOTAL ASSETS (4.25% of Table 1, F6)	\$7,578,144
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11A, B.2.b + B.2.c + B.2.d + B.2.e)	\$1,999,621 0
	3. Total	\$1,999,621
F.	LOSS (GAIN) [A-B-C-D-E]	(\$2,844,192)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$200,058) (703,329) 0 (1,940,805)
	4. Total	(\$2,844,192)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$328,809)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$58,546 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$87,819 *

	Established	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$1,999,621	12/31/2010	\$207,138
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	0	12/31/2005	0
f.	7/1/92	(2,844,192)	12/31/2006	(328,809)
g.	Total	(\$844,571)		(\$121,671)

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$24,694

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
<25									
25-29									
30-34									
35-39									
40-44									
45-49							1		1
50-54						1			1
55-59									
60-64									
65+									
ALL						1	1		2
			AVE	RAGE ANN	UAL FARN	INGS			
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	F SERVICI 15-19	<u>20-24</u>	25-29	30+	ALL
<25	_	— <del>—</del>						<u> </u>	MEL
25-29									
30-34									
35-39									
40-44									
45-49							60,862		60,862
50-54						49,719			49,719
55-59						,			,,,,
60-64									
65+									
ALL						49,719	60,862		55,290
	PRIOR	FISCAL	YEAR EAR	RNINGS (A	CTUAL DO	LLARS)	BY YEARS	OF SERVI	CE
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	15-19	20-24	<u>25-29</u>	30+	ALL
ALL						49,719	60,862		110,580

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# ANOKA POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

ALL
1
1 2
2
6
ALL
18,593
19,344 19,344
19,344
19,219
<u>ALL</u>
115,314
_

MILLIMAN & ROBERTSON, INC.

# ANOKA POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS_SINCE_DEATH								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64					2			2
65-69 70-74					2			2
75-79 80-84								
85+								
ALL					4			4
			AVERAGE	ANNUAL E	BENEFIT			
405			YEAR	S SINCE				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64					12,883			12,883
65-69 70-74					11,432			11,432
75-79 80-84								
85+								
ALL					12,158			12,158
805			EFIT (AC	TUAL DOLL	ARS) BY	YEARS SINCE	DEATH	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
ALL					48,632			48,632
				r 7				

MILLIMAN & ROBERTSON, INC.

# ANOKA POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS_DISABLED								
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	: ANNUAL B	ENEFIT			
<u>AGE</u>	<1	<u>1-4</u>	5-9	RS DISABL 10-14	15-19	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
	TOTAL	ANNUAL B	ENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	ABLED	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	15-19	20-24	<u>25+</u>	ALL
ALL								

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# ANOKA POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		Actives	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	2	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	2 0		
Ε.	TOTAL ON JUNE 30, 1992	2	0	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	7	0	4
В.	ADDITIONS	0	0	1
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	0 0 0 0	0 (1) 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	6	0	4

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (1.37% of Table 1, F6)	\$2,443,601
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$79,323 118,985 160,356
	4. Total Expected Future Assets	\$358,664
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$2,802,265
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$2,001,902
	2. Current Employees	
	a. Accumulated Employee Contributions \$90,670 Including Allocated Investment Income*	
	b. Employer-Financed Vested 476,817	
	<ul><li>c. Employer-Financed Nonvested</li><li>d. Total</li></ul>	\$567,487
	3. Total Pension Benefit Obligation	\$2,569,389
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$232,876
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$2,802,265
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$125,788
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0
*Estim	ated	

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF A LIABILITY (AAL)	CTUARIAL ACCRUED	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
1. Active Members				
<ul><li>a. Elected PERA</li><li>b. No Election</li></ul>	Police and Fire (Greater Value)	0 2	\$0 800,363	\$0 630,901
c. Total		2	\$800,363	\$630,901
2. Former Members	0.71			
a. Elected PERA b. No Election	Police and Fire (Greater Value)	0 0	\$0 0	\$0 0
c. Total		0	\$0	\$0
3. Benefit Recipie	nts			
a. Elected PERA b. Elected Reli	Police and Fire* ef Association	9 1	\$1,868,649 133,253	\$1,868,649 133,253
c. Total		10	\$2,001,902	\$2,001,902
4. Total				
<ul><li>a. Elected PERA</li><li>b. Elected Relic</li></ul>	Police and Fire*	9 1	\$1,868,649	\$1,868,649
c. No Election		2	133,253 800,363	133,253 630,901
d. Total		12	\$2,802,265	\$2,632,803
B. DETERMINATION OF U	NFUNDED ACTUARIAL			
1. AAL (A4)			, ,	\$2,632,803
2. Current Assets	(1.37% of Table 1,	F6)		2,443,601
3. UAAL (B1-B2)				\$189,202
C. NORMAL COST				\$20,178

<sup>\*</sup> Includes MPRIF Reserves of \$1,708,075.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9B)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$1,868,649 133,253 800,363
	4. Total	\$2,802,265
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS 1. Elected PERA Police and Fire 2. No Election (Greater Value)	\$0 79,323
	3. Total	\$79,323
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$0 118,985
	3. Total	\$118,985
D.	CURRENT VALUE OF TOTAL ASSETS (1.37% of Table 1, F6)	\$2,443,601
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11B, B.2.b + B.2.c + B.2.d + B.2.e)  3. Total	\$983,061 (629,785)  \$353,276
F.	LOSS (GAIN) [A-B-C-D-E]	
G.	ANALYSIS OF LOSS (GAIN)	(\$192,920) =======
	<ol> <li>MPRIF Mortality</li> <li>PERA Benefit Election</li> <li>Additional Contributions Made</li> <li>Other</li> </ol>	(\$66,600) 0 0 (126,320)
	4. Total	(\$192,920)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$22,303)

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

				Percent of <u>Payroll</u>	Dollar <u>Amount</u>
Α.	EMPLOYEE CO	NTRIBUTIONS		8.00%	<b>\$9,421</b> *
В.		NTRIBUTIONS ustment For S	itate Aid)		
	<ol> <li>Regular</li> <li>Additio</li> </ol>	municipal co nal municipal	ntribution contribution	12.00%	\$14,132 *
		<u>Establis</u>	Current hed Balance	Last <u>Payment</u>	Payment Amount **
		a. Initi b. 7/1/8 c. 7/1/8 d. 7/1/9 e. 7/1/9 f. 7/1/9	8 0 9 0 0 (656,143) 1 26,358	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005 12/31/2006	\$101,834 0 0 (81,904) 3,159 (22,303)
		g. Total	\$160,356 =======		\$786

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$24,339

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS OF						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u> 20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
<25 25-29										
30-34 35-39										
40-44 45-49										
50-54 55-59										
60-64 65+								1	1	
ALL								1	1	
AVERAGE ANNUAL EARNINGS										
				YEARS OF	SERVIC	F				
<u>AGE</u>	<u>&lt;1</u>	1-4	5-9	10-14	15-19	20-24	25-29	<u>30+</u>	ALL	
<25 25-29										
30-34 35-39										
40-44 45-49										
50-54 55-59										
60-64 65+								38,584	38,584	
ALL								38,584	38,584	
	PRIOR	FISCAL Y	EAR EA	RNINGS (/	ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
ALL								38,584	38,584	

## MILLIMAN & ROBERTSON, INC.

# BUHL POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			YE	ARS RETIF	RED					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54										
55-59 60-64			1					1		
65-69 70-74										
75-79 80-84										
85+										
ALL			1					1		
AVERAGE ANNUAL BENEFIT										
405				ARS RETI						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>		
<50 50-54										
55-59 60-64			23,207					23,207		
65-69 70-74										
75-79 80-84										
85+										
ALL			23,207					23,207		
ACE		L ANNUAL	<u>BENEFIT (</u> <u>5-9</u>	ACTUAL DO 10-14	<u> 15-19</u>	YEARS RE 20-24	TIRED 25.			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>		10-14	10-19	<u> 20-24</u>	<u>25+</u>	ALL		
ALL			23,207					23,207		
				C.F.						

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# BUHL POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

				S SINCE	DEATH						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54											
55-59 60-64											
65-69 70-74				1				1			
75-79 80-84											
85+											
ALL				1				1			
AVERAGE ANNUAL BENEFIT											
ACE		3 /		S SINCE		20.24	25.	ALL			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54											
55-59 60-64											
65-69 70-74				12,070				12,070			
75-79 80-84											
85+											
ALL				12,070				12,070			
	TOTAL_	ANNUAL BEN	LEFIT (AC	TUAL DOLI	LARS) BY 1	EARS SINC	E DEATH				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>			
ALL				12,070				12,070			
			_	66 -							

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# BUHL POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

	YEARS DISABLED										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54											
55-59 60-64											
65-69 70-74											
75-79 80-84											
85+											
ALL											
			AVERAGE	ANNUAL E	ENEFIT						
			YFA	RS DISABL	FD						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	15-19	20-24	<u>25+</u>	ALL			
<50 50-54											
55-59 60-64											
65-69 70-74											
75-79 80-84											
85+											
ALL											
		TAL ANNUAL									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
ALL											

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# BUHL POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Terminated	
		Actives	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	1	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	1 0		
Ε.	TOTAL ON JUNE 30, 1992	1	0	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	1	0	1
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
E.	TOTAL ON JUNE 30, 1992	1	0	1

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (0.51% of Table 1, F6)	\$906,645
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$3,133 4,699 3,881
	4. Total Expected Future Assets	\$11,713
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$918,358
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$482,552
	2. Current Employees	
	a. Accumulated Employee Contributions \$33,371 Including Allocated Investment Income*	
	b. Employer-Financed Vested 390,329	
	<ul><li>c. Employer-Financed Nonvested</li><li>d. Total</li></ul>	\$423,700
	3. Total Pension Benefit Obligation	\$906,252
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$12,106
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$918,358
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	(\$393)
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0
*Estima	ated	

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

		Number of <u>Participants</u>	Present Value of Projected Benefits	Actuarial Accrued <u>Liability</u>
A. DETERMINATION OF AC LIABILITY (AAL)	TUARIAL ACCRUED			
<ol> <li>Active Members         <ul> <li>a. Elected PERA</li> <li>b. No Election (</li> </ul> </li> </ol>		0 1	\$0 435,806	\$0 427,445
c. Total		1	\$435,806	\$427,445
<ol> <li>Former Members</li> <li>a. Elected PERA</li> <li>b. No Election (</li> </ol>		0	\$0 0	\$0 0
c. Total		0	\$0	\$0
<ol> <li>Benefit Recipien</li> <li>a. Elected PERA</li> <li>b. Elected Relie</li> </ol>	Police and Fire*	2 0	\$482,552 0	\$482,552 0
c. Total		2	\$482,552	\$482,552
b. Elected Relie c. No Election (		2 0 1	\$482,552 0 435,806	\$482,552 0 427,445
d. Total		3	\$918,358 ========	\$909,997
B. DETERMINATION OF UN	FUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	
1. AAL (A4) 2. Current Assets (	0.51% of Table 1,	F6)		\$909,997 906,645
3. UAAL (B1-B2)				\$3,352
C. NORMAL COST				\$8,773

<sup>\*</sup> Includes MPRIF Reserves of \$482,552.

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9C)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$482,552 0 435,806
	4. Total	\$918,358
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$0 3,133
	3. Total	\$3,133
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$0 4,699
	3. Total	\$4,699
D.	CURRENT VALUE OF TOTAL ASSETS (0.51% of Table 1, F6)	\$906,645
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11C, B.2.b + B.2.c + B.2.d + B.2.e)  3. Total	\$92,249 (26,466)  \$65,783
F.	LOSS (GAIN) [A-B-C-D-E]	(\$61,902)
G.	ANALYSIS OF LOSS (GAIN)	=========
u.	1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$5,134) 0 0 (56,768)
	4. Total	(\$61,902)
н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$7,156)

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

### JULY 1, 1992

				Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIE	BUTIONS		8.00%	\$3,287 *
В.	EMPLOYER CONTRIE (Before Adjustme		id)		
		icipal contribut nunicipal contri		12.00%	\$4,931 *
		<u>Established</u>	Current <u>Balance</u>	Last Payment	Payment Amount **
	a. b. c. d. e. f.	Initial 7/1/88 7/1/89 7/1/90 7/1/91 7/1/92	\$92,249 2,591 115 (28,876) (296) (61,902)	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005 12/31/2006	\$9,556 357 15 (3,604) (35) (7,156)
	g.	Total	\$3,881		(\$867)

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$7,351

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

## ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
<25 25-29										
30-34 35-39										
40-44 45-49							1		1	
50-54 55-59							1	1	1 1	
60-64 65+										
ALL							2	1	3	
AVERAGE ANNUAL EARNINGS										
					SERVIC	<u> </u>				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>	
<25 25-29								·		
30-34 35-39										
40-44 45-49							34,620		34,620	
50-54 55-59							36,124	35,639	36,124 35,639	
60-64 65+										
ALL							35,372	35,639	35,461	
		FISCAL Y	EAR EA	RNINGS (	ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
ALL							70,744	35,639	106,383	

## MILLIMAN & ROBERTSON, INC.

# CHISHOLM FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED												
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54												
55-59 60-64			1					1				
65-69 70-74			2		1			3				
75-79 80-84					1			1				
85+						1		1				
ALL			3		2	1		6				
AVERAGE ANNUAL BENEFIT												
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>YE</u> <u>5-9</u>	ARS RETII 10-14	RED 15-19	20-24	25.	ALL				
	<u> </u>	7-4	<u>5-9</u>	10-14	15-19	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54												
55-59			17 000					17.006				
60-64			17,096					17,096				
65-69 70-74			19,284		3,688			14,085				
75-79 80-84					10,965			10,965				
85+						8,898		8,898				
ALL			18,555		7,327	8,898		13,202				
		L ANNUAL	BENEFIT (	ACTUAL D	DLLARS) BY	YEARS RE	TIRED					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	15-19	20-24	<u>25+</u>	ALL				
ALL			55,665		14,654	8,898		79,212				

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# CHISHOLM FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

				S SINCE I						
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54										
55-59 60-64										
65-69 70-74					1	1		1 1		
75-79 80-84						1	2	3		
85+							2	2		
ALL					1	2	4	7		
AVERAGE ANNUAL BENEFIT										
				S SINCE						
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
<50 50-54										
55-59 60-64										
65-69 70-74					4,471	2,302		2,302 4,471		
75-79 80-84						2,302	2,302	2,302		
85+							2,302	2,302		
ALL					4,471	2,302	2,302	2,612		
	TOTAL	ANNUAL BE	NEFIT (AC	TUAL DOL	LARS) BY	YEARS SING	E DEATH			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
ALL					4,471	4,604	9,208	18,284		

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# CHISHOLM FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

105				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	ANNUAL B	ENEFIT			
			YEA	RS DISABL	ED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								÷
75-79 80-84								
85+								
ALL								
	TOTAL	ANNUAL B	ENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL								

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# CHISOLM FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		<u> Actives</u>	Deferred Retirement	Other <u>Non-Vested</u>
Α.	ON JUNE 30, 1991	3	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	3		
Ε.	TOTAL ON JUNE 30, 1992	3	0	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	7	0	7
В.	ADDITIONS	0	0	1
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	0 0 0 0	0 (1) 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	6	0	7

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

#### JULY 1, 1992

Α.	CURRENT ASSETS (0.61% of Table 1, F6)	\$1,082,646
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$61,566 92,349 589,532
	4. Total Expected Future Assets	\$743,447
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$1,826,093
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$984,679
	2. Current Employees	
	a. Accumulated Employee Contributions \$95,988 Including Allocated Investment Income*	
	b. Employer-Financed Vested 570,254	
	d. Total	\$666,242
	3. Total Pension Benefit Obligation	\$1,650,921
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$175,172
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,826,093
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$568,275
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

\*Estimated

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
A. DETERMINATION OF ACTUARIAL ACCRUEI LIABILITY (AAL)	D		
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	e 3 0	<b>\$841,414</b> 0	<b>\$712,898</b> 0
c. Total	3	\$841,414	\$712,898
<ol> <li>Former Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>		\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fir</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	e* 13 0	\$984,679 0	<b>\$984,679</b> 0
c. Total	13	\$984,679	\$984,679
<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fir</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> </ol>	0	\$1,826,093 0 0	\$1,697,577 0 0
d. Total	16	\$1,826,093	\$1,697,577
B. DETERMINATION OF UNFUNDED ACTUARI			
<ol> <li>AAL (A4)</li> <li>Current Assets (0.61% of Table</li> </ol>	1,F6)		\$1,697,577 1,082,646
3. UAAL (B1-B2)			\$614,931
C. NORMAL COST			\$18,817

<sup>\*</sup> Includes MPRIF Reserves of \$940,506.

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9D)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$1,826,093 0 0
	4. Total	\$1,826,093
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$61,566 0
	3. Total	\$61,566
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$92,349 0
	3. Total	\$92,349
D.	CURRENT VALUE OF TOTAL ASSETS (0.61% of Table 1, F6)	\$1,082,646
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$437,191 262,505
	(Table 11D, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$699,696
F.	LOSS (GAIN) [A-B-C-D-E]	(\$110,164)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$16,983) 0 0 0 (93,181)
	4. Total	(\$110,164)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$12,736)

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of <u>Payroll</u>	Dollar Amount
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$9,064 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$13,595 *

	<u>Established</u>	Current <u>Balance</u>	Last Payment	Payment Amount **
a.	Initial	\$437,191	12/31/2010	\$45,288
b.	7/1/88	0	12/31/2002	0
c.	7/1/89	. 0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	262,505	12/31/2005	31,462
f.	7/1/92	(110,164)	12/31/2006	(12,736)
g.	Total	\$589,532		\$64,014

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$86,673

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

					SERVICE				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39									
40-44 45-49							1		1
50-54 55-59									
60-64 65+									
ALL							1		1
			AVE	RAGE ANNU	JAL EARN	INGS			
				YEARS OF	SERVIC	E			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	15-19	20-24	25-29	<u>30+</u>	ALL
<25 25-29									
30-34 35-39									
40-44 45-49							40,226		40,226
50-54 55-59									
60-64 65+									
ALL							40,226		40,226
	PRIOR			RNINGS (/	ACTUAL D	OLLARS)	BY YEARS	OF SERVI	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL							40,226		40,226

MILLIMAN & ROBERTSON, INC.

# CHISHOLM POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			YE	ARS RETI	RED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64			2	1				1 2
65-69 70-74					1			1
75-79 80-84					1			1
85+								
ALL			2	1	2			5
			AVERAGE	E ANNUAL	BENEFIT			
				ARS RETI			<u> </u>	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64			20,309	13,680				13,680 20,309
65-69			20,000					20,000
70-74					15,087			15,087
75-79 80-84					9,710			9,710
85+								
ALL			20,309	13,680	12,399			15,819
405			BENEFIT (	(ACTUAL D	OLLARS) B	YEARS RE		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL			40,618	13,680	24,798			79,095
				- 83 -				

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# CHISHOLM POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

				S SINCE D					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL	
<50 50-54									
55-59 60-64					1			1	
65-69 70-74					1			1	
75-79 80-84									
85+									
ALL					2			2	
	AVERAGE ANNUAL BENEFIT								
	<del></del>			S SINCE D					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>	
<50 50-54									
55-59 60-64					2,302			2,302	
65-69					2,002			2,002	
70-74					2,302			2,302	
75-79 80-84									
85+									
ALL					2,302			2,302	
AGE		ANNUAL BER	NEFIT (AC 5-9	TUAL DOLL 10-14	ARS) BY Y	EARS SINCE 20-24	DEATH 25+	ALL	
<u>ALL</u>	~~	<u>* T</u>	<u></u>	<u> </u>	4,604	<u> </u>	<u> </u>	4,604	
ALL					4,004			7,004	

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# CHISHOLM POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

				RS DISABL	.ED	, , , · , · , ·	<u> </u>	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	ANNUAL E	BENEFIT			
				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
ACE				ACTUAL DO	LLARS) BY	YEARS DIS	ABLED	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL								

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# CHISOLM POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		Actives	Deferred Retirement	Other Non-Vested
		Actives		Holl-Vested
Α.	ON JUNE 30, 1991	1	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	1 0		
Ε.	TOTAL ON JUNE 30, 1992	1	0	0
		Retirement Annuitants	Recipients Disabled	Survivors
			<del>.</del>	
Α.	ON JUNE 30, 1991	5	0	2
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	5	0	2

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (0.53% of Table 1, F6)	\$945,067			
В.	EXPECTED FUTURE ASSETS				
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$29,897 44,846 225,266			
	4. Total Expected Future Assets				
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$1,245,076			
D.	CURRENT PENSION BENEFIT OBLIGATIONS				
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>				
	2. Current Employees				
	a. Accumulated Employee Contributions \$34,677 Including Allocated Investment Income*				
	b. Employer-Financed Vested 184,843				
	<ul><li>c. Employer-Financed Nonvested</li><li>d. Total</li></ul>	\$219,520			
	3. Total Pension Benefit Obligation	\$1,161,743			
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$83,333			
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,245,076			
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$216,676			
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0			

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected Benefits	Actuarial Accrued Liability
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	1 0	\$302,853 0	<b>\$24</b> 1,005 0
c. Total	1	\$302,853	\$241,005
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	7 0	\$942,223 0	<b>\$942</b> ,223
c. Total	7	\$942,223	<b>\$942</b> ,223
<ul><li>4. Total</li><li>a. Elected PERA Police and Fire*</li><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li><li>d. Total</li></ul>	8 0 0	\$1,245,076 0 0  \$1,245,076	\$1,183,228 0 0  \$1,183,228
D. DETERMINATION OF UNFINDED ACTUADIAL	4000UFD   1401  I		
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCROED LIABILI	IY (UAAL)	<b>41 100 000</b>
<ol> <li>AAL (A4)</li> <li>Current Assets (0.53% of Table 1.</li> </ol>	,F6)		\$1,183,228 945,067
3. UAAL (B1-B2)			\$238,161
C. NORMAL COST	-		\$7,090

<sup>\*</sup> Includes MPRIF Reserves of \$920,573.

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9E)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$1,245,076 0 0
	4. Total	\$1,245,076
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$29,897 0
	3. Total	\$29,897
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	<b>\$44</b> ,846
	3. Total	\$44,846
D.	CURRENT VALUE OF TOTAL ASSETS (0.53% of Table 1, F6)	\$945,067
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11E, B.2.b + B.2.c + B.2.d + B.2.e)  3. Total	\$71,736 157,705 \$229,441
F.	LOSS (GAIN) [A-B-C-D-E]	(\$4,175)
		=========
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$23,996 0 0 (28,171)
	4. Total	(\$4,175)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$483)

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

### JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$3,427 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$5,141 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a. b. c. d. e.	Initial 7/1/88 7/1/89 7/1/90 7/1/91	\$71,736 0 0 0 157,705	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005	\$7,431 0 0 0 18,901
f. g.	7/1/92 Total	(4,175)  \$225,266	12/31/2006	(483)  \$25,849

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$34,417

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

					F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39				2					2
40-44 45-49				1	2				3
50-54 55-59					2	1			<b>2</b> 1
60-64 65+									
ALL				3	4	1			8
			AVE	RAGE ANN	IUAL EARN	INGS			
					F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				26,901					26,901
40-44 45-49				26,427	27,385				27,066
50-54 55-59					26,836	38,817			26,836 38,817
60-64 65+									
ALL				26,743	27,111	38,817			28,436
	PRIOR		YEAR EA	RNINGS	(ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u> 25-29</u>	<u>30+</u>	<u>ALL</u>
ALL				80,229	108,444	38,817			227,488

## 

# CROOKSTON FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			YE	ARS RETI				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54		,						
55-59 60-64								
65-69 70-74			1					1
75-79 80-84				2				2
85+								
ALL			1	2				3
			AVERAGE	ANNUAL	BENEFIT			
				ARS RETI				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54								
55-59 60-64								
65-69 70-74			14,407					14,407
75-79 80-84				8,118				8,118
85+								
ALL			14,407	8,118				10,214
405		ANNUAL		ACTUAL D	OLLARS) BY	YEARS RE		A11
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL			14,407	16,236				30,642
			-	92 -				

MILLIMAN & ROBERTSON, INC.

# CROOKSTON FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

				S SINCE I	DEATH			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84					1	1		1 1
85+					1			1
ALL					2	1		3
			AVERAGE	ANNUAL I	BENEFIT			
				S SINCE I				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84					3,946	3,946		3,946 3,946
85+					3,946			3,946
ALL					3,946	3,946		3,946
80E		ANNUAL BEN	EFIT (AC	TUAL DOLI	ARS) BY Y	EARS SINCE	DEATH	
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
ALL					7,892	3,946		11,838

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# CROOKSTON FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

105			YEA	RS DISABL				
<u>AGE</u> <50	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	ANNUAL E	ENEFIT			
			YEA	RS DISABL	.ED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	15-19	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
AGE		L ANNUAL B 1-4	ENEFIT ( 5-9	ACTUAL DO 10-14	LLARS) BY 15-19	YEARS DIS	ABLED 25+	ALL
ALL	_		_			·	<u></u>	

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# CROOKSTON FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	<u>inated</u>
			Deferred	Other
		<u>Actives</u>	<u>Retirement</u>	<u>Non-Vested</u>
Α.	ON JUNE 30, 1991	8	0	0
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred	0 0 0 0	0 0 0 0	0 0 0 0
	6. Terminated - Refund	0	0	0
	7. Terminated - Other Non-Vested	0	0	0
	8. Returned as Active	0	0	0
D.	DATA ADJUSTMENTS	0	0	0
	Vested	8		
	Non-Vested	Õ		
	11011 103000	v		
Ε.	TOTAL ON JUNE 30, 1992	8	0	0
			Recipients	
		Retirement	Diashlad	Cumuituana
		Annuitants	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	3	0	3
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	3	0	3

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (0.49% of Table 1, F6)	\$870,918
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$184,708 277,062 268,583
	4. Total Expected Future Assets	\$730,353
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$1,601,271
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$350,971
	2. Current Employees	
	a. Accumulated Employee Contributions \$26,216 Including Allocated Investment Income*	
	b. Employer-Financed Vested 729,276 c. Employer-Financed Nonvested 0	
	d. Total	\$755,492
	3. Total Pension Benefit Obligation	\$1,106,463
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$494,808
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,601,271
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$235,545
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0
*Estim	ated	

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
1. Active Members			
a. Elected PERA Police and Fire b. No Election (Greater Value)	8 0	\$1,250,300 0	\$811,877 0
c. Total	8	\$1,250,300	\$811,877
2. Former Members			
a. Elected PERA Police and Fire	0	\$0	\$0
b. No Election (Greater Value)	0	0	0
c. Total	0	\$0	\$0
3. Benefit Recipients			
a. Elected PERA Police and Fire		\$350,971	\$350,971
b. Elected Relief Association	0	0	0
c. Total	6	\$350,971	\$350,971
4. Total			• .
a. Elected PERA Police and Fire	_	\$1,601,271	\$1,162,848
<ul><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li></ul>	0 0	0	0
·			
d. Total	14	\$1,601,271	\$1,162,848
B. DETERMINATION OF UNFUNDED ACTUARIAL	_ ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (0.49% of Table 1</li> </ol>	l,F6)		\$1,162,848 870,918
3. UAAL (B1-B2)			\$291,930
C. NORMAL COST			\$46,981

<sup>\*</sup> Includes MPRIF Reserves of \$350,971.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9F) 1. Elected PERA Police and Fire 2. Elected Relief Association 3. No Election (Greater Value)	\$1,601,271 0 0
	4. Total	\$1,601,271
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$184,708 0
	3. Total	\$184,708
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$277,062 0
	3. Total	\$277,062
D.	CURRENT VALUE OF TOTAL ASSETS (0.49% of Table 1, F6)	\$870,918
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)  (Table 11F, B.2.b + B.2.c + B.2.d + B.2.e)	\$126,973 137,830
	3. Total	\$264,803
F.	LOSS (GAIN) [A-B-C-D-E]	\$3,780
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$14,327 0 0 (10,547)
	4. Total	\$3,780
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	\$437

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$19,381 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$29,072 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment <u>Amount **</u>
a.	Initial	\$126,973	12/31/2010	\$13,153
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	137,830	12/31/2005	16,519
f.	7/1/92	3,780	12/31/2006	437
g.	Total	\$268,583		<b>\$30</b> ,109
		=========		===========

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$78,562

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
<25 25-29										
30-34 35-39				6					6	
40-44 45-49				8	10 3	3 14	6		21 23	
50-54 55-59				1		3	8 2	1 4	13 6	
60-64 65+								2	2	
ALL				15	13	20	16	7	71	
			AVE	RAGE ANN	UAL EARN	INGS				
					F SERVIC	<u>E</u>				
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL	
<25 25-29							,			
30-34 35-39				39,614					39,614	
40-44 45-49				40,285	43,046 41,182	51,807 42,531	40,954		43,246 41,944	
50-54 55-59				40,100		39,884	40,354 44,253	37,307 49,603	39,992 47,820	
60-64 65+								50,057	50,057	
ALL				40,004	42,616	43,525	41,066	47,976	42,499	
	PRI	OR FISCAL	YEAR E	ARNINGS	(IN THOU	ISANDS) B	Y YEARS	OF SERVI	CE	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
ALL				600	554	870	657	335	3,017	

MILLIMAN & ROBERTSON, INC.

# DULUTH POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS_RETIRED										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL			
<50 50-54		5	1					6			
55-59 60-64	2		6 10	2				8 12			
65-69 70-74		3	7 1	2 2	2 5	2 3	4	16 15			
75-79 80-84				5	3 1	<b>2</b> 1	7 3	17 5			
85+						1	3	4			
ALL	2	8	25	11	11	9	17	83			
			AVERAG	E ANNUAL	BENEFIT						
ACE		1.4		EARS RETI		20.24	or.	At 1			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54		17,872	15,031					17,399			
55-59 60-64	33,576		17,629 20,627	17,482				21,616 20,103			
65-69 70-74		25,442	20,822 20,206	20,206 21,300	20,206 19,611	17,977 19,215	16,244	21,179 18,899			
75-79 80-84				20,206	20,206 20,206	20,206 20,206	18,153 18,555	19,361 19,215			
85+						20,206	17,399	18,101			
ALL	33,576	20,711	19,721	19,910	19,936	19,380	17,642	19,741			
	тот	AL ANNUAL	BENEFIT	(ACTUAL D	OLLARS) B	Y YEARS R	ETIRED				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL			
ALL	67,152	165,688	493,025	219,010	219,296	174,420	299,914	1,638,503			

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## DULUTH POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54		5	1					6		
55-59 60-64			1					1		
65-69 70-74		1	1	2 1	1	1 1	2	7 4		
75-79 80-84			1	1	1	1 2	1 1	5 4		
85+			1	2	3	2	3	11		
ALL		6	6	6	6	7	7	38		
AVERAGE ANNUAL BENEFIT										
105				RS SINCE		00.04	05.	511		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
<50 50-54		14,969	3,962					13,135		
55-59 60-64			9,905					9,905		
65-69 70-74		9,480	9,905	9,905 9,905	9,905 9,905	9,480 9,458	9,905	9,844 9,687		
75-79 80-84			9,905 9,905	9,905	9,458	9,526 9,905	9,905 9,480	9,740 9,799		
85+			9,905	9,905	9,763	9,905	9,905	9,866		
ALL		14,054	8,915	9,905	9,760	9,726	9,844	10,337		
	TOTAL	ANNUAL BI	ENEFIT (A	CTUAL DOL	LARS) BY	YEARS SIN	ICE DEATH			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL		
ALL		84,324	53,490	59,430	58,560	68,082	68,908	392,806		

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# DULUTH POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		4 5						4 5
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		9						9
			AVERAGE	E ANNUAL E	BENEFIT			
	<u></u>			RS DISABL		···		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54		20,516 19,757						20,516 19,757
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		20,094						20,094
=			BENEFIT (	(ACTUAL DO	LLARS) BY	YEARS DIS	SABLED	445
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL		180,846						180,846

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## DULUTH POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		Astivos	Deferred Retirement	Other Non-Vested
		<u>Actives</u>	Rectrement	NOIL-AE2 CEG
Α.	ON JUNE 30, 1991	75	1	1
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(2) (2) 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	1	(1)
	Vested Non-Vested	71 0		
Ε.	TOTAL ON JUNE 30, 1992	71	2	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	83	7	43
В.	ADDITIONS	2	2	1
<b>C</b> .	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (2) 0 0	0 0 0 0	0 (6) 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	83	9	38

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (17.58% of Table 1, F6)	\$31,321,199
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$1,855,984 2,783,975 10,238,816
	4. Total Expected Future Assets	\$14,878,775
C.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$46,199,974
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$24,329,068
	2. Current Employees	
	a. Accumulated Employee Contributions \$2,550,861	
	Including Allocated Investment Income* b. Employer-Financed Vested 11,881,406 c. Employer-Financed Nonvested 0	
	d. Total 0	\$14,432,267
	3. Total Pension Benefit Obligation	\$38,761,335
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$7,438,639
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$46,199,974
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$7,440,136
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0
*Estima	ated	

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	14 57	\$5,053,469 16,817,437	\$4,514,020 11,539,162
c. Total	71	\$21,870,906	\$16,053,182
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 2	\$0 307,776	\$0 307,776
c. Total	2	\$307,776	\$307,776
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	118 12	\$20,569,255 3,452,037	\$20,569,255 3,452,037
c. Total	130	\$24,021,292	\$24,021,292
<ul><li>4. Total</li><li>a. Elected PERA Police and Fire*</li><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li><li>d. Total</li></ul>	132 12 59 203	\$25,622,724 3,452,037 17,125,213  \$46,199,974	\$25,083,275 3,452,037 11,846,938  \$40,382,250
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (17.58% of Table</li> </ol>			\$40,382,250 31,321,199
3. UAAL (B1-B2)			\$9,061,051
C. NORMAL COST			\$634,510

<sup>\*</sup> Includes MPRIF Reserves of \$17,992,254.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9G)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$25,622,724 3,452,037 17,125,213
	4. Total	\$46,199,974
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$239,174 1,616,810
	3. Total	\$1,855,984
C.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$358,761 2,425,214
	3. Total	\$2,783,975
D.	CURRENT VALUE OF TOTAL ASSETS (17.58% of Table 1, F6)	\$31,321,199
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11G, B.2.b + B.2.c + B.2.d + B.2.e)	\$12,451,131 (588,177)
	3. Total	\$11,862,954
F.	LOSS (GAIN) [A-B-C-D-E]	(\$1,624,138)
G.	ANALYSIS OF LOSS (GAIN)  1. MPRIF Mortality  2. PERA Benefit Election  3. Additional Contributions Made  4. Other	(\$286,822) (60,909) 0 (1,276,407)
	4. Total	(\$1,624,138)
н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$187,762)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$257,086 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$385,628 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a. b. c. d. e. f.	Initial 7/1/88 7/1/89 7/1/90 7/1/91 7/1/92	\$12,451,131 169,754 (2,668,683) (207,192) 2,117,944 (1,624,138)	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005 12/31/2006	\$1,289,796 23,385 (348,826) (25,863) 253,841 (187,762)
g.	Total	\$10,238,816		\$1,004,571

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$1,647,285

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				1					1
40-44 45-49				1	2 1				3 1
50-54 55-59						1	1		2 1
60-64 65+									
ALL				2	3	1	2		8
			AVE	RAGE ANN	UAL EARN	INGS			
				YEARS 0	F SERVIC	Ε			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>
<25 25-29									
30-34									
35-39				35,202				•	35,202
40-44 45-49				34,675	37,822 34,815				36,773 34,815
50-54 55-59						40,310	36,269 38,347		38,290 38,347
60-64 65+									
ALL				34,939	36,820	40,310	37,308		36,907
	PRIOR	FISCAL	YEAR EA	RNINGS (	ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
ALL				69,878	110,460	40,310	74,616		295,256

### MILLIMĀN & RŌBERTSON, INC.

# FARIBAULT FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS_RETIRED									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL	
<50 50-54		1		1	1			3	
55-59 60-64		1	2	1	1			4 2	
65-69 70-74				1		1		1 1	
75-79 80-84					1		1	2	
85+							1	1	
ALL		2	2	4	3	1	2	14	
		·	AVERAG	E ANNUAL	BENEFIT				
405				EARS RETI			·		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54		16,203		16,263	16,263			16,243	
55-59 60-64		16,719	16,719	16,263 16,263	16,263			16,605 16,263	
65-69 70-74				16,263		16,263		16,263 16,263	
75-79 80-84					16,263		16,263	16,263	
85+							16,263	16,263	
ALL		16,461	16,719	16,263	16,263	16,263	16,263	16,356	
	TOT	AL ANNUAL	BENEFIT	(ACTUAL D	OLLARS) B	Y YEARS R	ETIRED		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
ALL		32,922	33,438	65,052	48,789	16,263	32,526	228,984	

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## FARIBAULT FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

	YEARS SINCE DEATH										
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54			2					2			
55-59 60-64											
65-69 70-74							1	1			
75-79 80-84							1	1			
85+						1	1	2			
ALL			2			1	3	6			
AVERAGE ANNUAL BENEFIT											
	<u> </u>		YEAR	S SINCE D							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54			6,505					6,505			
55-59 60-64											
65-69 70-74							813	813			
75-79 80-84							1,252	1,252			
85+						9,758	9,758	9,758			
ALL			6,505			9,758	3,941	5,765			
ACE.		NNUAL BE	NEFIT (AC	TUAL DOLL	ARS) BY Y	EARS SING					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
ALL			13,010			9,758	11,823	34,590			

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# FARIBAULT FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

ACE				RS DISABL				<del></del>
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		1	2					3
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		1	2					3
			AVERAGE	ANNUAL E	BENEFIT			
105				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		16,432	16,263					16,319
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		16,432	16,263					16,319
AGE		AL ANNUAL 1-4	BENEFIT (	ACTUAL DO 10-14	LLARS) BY 15-19	YEARS DIS	ABLED 25+	ALL
ALL	<u> 18</u>	16,432	32,526	<u>** 17</u>	10 10	<u> 20 27</u>	<u> 201</u>	48,957

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# FARIBAULT FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		6 A Sana a	Deferred	Other Non-Vested
		<u>Actives</u>	Retirement	Woll-Aezrea
Α.	ON JUNE 30, 1991	9	0	0
В.	ADDITIONS	0	1	0
<b>C</b> .	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 (1) 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	3 5		
٤.	TOTAL ON JUNE 30, 1992	8	1	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	15	3	7
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 (1) 0 0
D.	DATA ADJUSTMENTS	(1)	0	0
Ε.	TOTAL ON JUNE 30, 1992	14	3	6

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (2.13% of Table 1, F6)	\$3,803,609
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$214,672 322,007 1,655,081
	4. Total Expected Future Assets	\$2,191,760
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$5,995,369
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$3,947,883
	2. Current Employees	
	a. Accumulated Employee Contributions \$238,848 Including Allocated Investment Income*	
	b. Employer-Financed Vested 1,104,089 c. Employer-Financed Nonvested 554,578	
	d. Total	\$1,897,515
	3. Total Pension Benefit Obligation	\$5,845,398
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$149,971
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$5,995,369
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$2,041,789
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected Benefits	Actuarial Accrued Liability
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 8	\$0 2,047,486	\$0 1,516,885
c. Total	8	\$2,047,486	\$1,516,885
<ol> <li>Former Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	0 1	\$0 107,523	\$0 107,523
c. Total	1	\$107,523	\$107,523
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	23 0	\$3,840,360 0	<b>\$3,840,360</b> 0
c. Total	23	\$3,840,360	\$3,840,360
<ul><li>4. Total</li><li>a. Elected PERA Police and Fire*</li><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li><li>d. Total</li></ul>	23 0 9 32	\$3,840,360 0 2,155,009  \$5,995,369	0
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (2.13% of Table 1</li> </ol>	,F6)		\$5,464,768 3,803,609
3. UAAL (B1-B2)			\$1,661,159
C. NORMAL COST			\$62,716

<sup>\*</sup> Includes MPRIF Reserves of \$2,964,059.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9H)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$3,840,360 0 2,155,009
	4. Total	\$5,995,369
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$0 214,672
	3. Total	\$214,672
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$0 322,007
	3. Total	\$322,007
D.	CURRENT VALUE OF TOTAL ASSETS (2.13% of Table 1, F6)	\$3,803,609
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11H, B.2.b + B.2.c + B.2.d + B.2.e)	\$3,465,292 (1,369,496)
	3. Total	\$2,095,796
F.	LOSS (GAIN) [A-B-C-D-E]	(\$440,715)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$97,697 0 0 0 (538,412)
	4. Total	(\$440,715)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$50,950)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of <u>Payroll</u>	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$25,156 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$37,734 *

	<u>Established</u>	Current Balance	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$3,465,292	12/31/2010	\$358,965
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	(1,369,496)	12/31/2005	(164,138)
f.	7/1/92	(440,715)	12/31/2006	`(50,950)
g.	Total	\$1,655,081		\$143,877

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$206,767

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

TABLE 3I

### ACTIVE MEMBERS AS OF JUNE 30, 1992

					F SERVICE				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				3					3
40-44 45-49				1	7 1	1			9 1
50-54 55-59						1	5		6
60-64 65+								1	1
ALL				4	8	2	5	1	20
			AVE	RAGE ANN	IUAL EARN	INGS			
				YEARS C	F SERVIC	E			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34									25 202
35-39				35,323					35,323
40-44 45-49				36,121	36,705 38,593	37,683			36,749 38,593
50-54 55-59						38,805	35,931		36,410
60-64 65+								36,212	36,212
ALL				35,523	36,941	38,244	35,931	36,212	36,498
	PRIOR	FISCAL	YEAR E	ARNINGS	(ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL				142,092	295,528	76,488	179,655	36,212	729,960

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# HIBBING FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

405				ARS RETI				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64		1	9					1 10
65-69				4				
70-74				<b>4</b> 1				4 1
75-79 80-84								
85+							1	1
ALL		2	9	5			1	17
			AVERAGE	ANNUAL	BENEFIT			
			YE	ARS RETI	RED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64		18,379 35,482	18,404					18,379 20,112
65-69 70-74				15,780 17,634				15,780 17,634
75-79 80-84								
85+							7,724	7,724
ALL		26,931	18,404	16,151			7,724	18,116
			BENEFIT (	ACTUAL D	OLLARS) B'	Y YEARS RE		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u> 15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL		53,862	165,636	80,755			7,724	307,972
				110				

- 119 - MILLIMAN & ROBERTSON, INC.

# HIBBING FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54									
55-59 60-64				1			1	1	
65-69 70-74							1	1	
75-79 80-84							1	1	
85+				1		2	2	5	
ALL				2		2	5	9	
AVERAGE ANNUAL BENEFIT									
			YEAR	S SINCE	DEATH				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54									
55-59 60-64				6,384			3,421	3,421 6,384	
65-69 70-74							3,421	3,421	
75-79 80-84							3,421	3,421	
85+				3,421		3,421	3,354	3,394	
ALL				4,903		3,421	3,394	3,735	
ACE					LARS) BY Y			All	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
ALL				9,806		6,842	16,970	33,615	
				100					

- 120 - MILLIMAN & ROBERTSON, INC.

## HIBBING FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

				RS DISABL				
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVEDACE	: ANNUAL E	CHECIT			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>YEA</u> <u>5-9</u>	RS DISABL 10-14	.ED 15-19	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64						·		
65-69 70-74								
75-79 80-84								
85+								
ALL								
		AL ANNUAL	BENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>
ALL								

- 121 - MILLIMAN & ROBERTSON, INC.

## HIBBING FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Termi	nated
		Antivos	Deferred	Other Non-Vested
		<u>Actives</u>	Retirement	Non-vested
Α.	ON JUNE 30, 1991	21	0	0
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(1) 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	20 0		
Ε.	TOTAL ON JUNE 30, 1992	20	0	0
			Recipients	
		Retirement Annuitants	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	16	0	12
В.	ADDITIONS	1	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 (3) 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	17	0	9

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

### JULY 1, 1992

Α.	CURRENT ASSETS (2.47% of Table 1, F6)	\$4,396,800
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$656,788 985,182 2,617,837
	4. Total Expected Future Assets	\$4,259,807
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$8,656,607
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$4,102,787
	2. Current Employees	
	a. Accumulated Employee Contributions \$558,520 Including Allocated Investment Income* b. Employer-Financed Vested 2,262,827 c. Employer-Financed Nonvested 0 d. Total	\$2,821,347
	3. Total Pension Benefit Obligation	\$6,924,134
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,732,473
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$8,656,607
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$2,527,334
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

\*Estimated

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
LIABILITY (AAL)			
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	20 0	\$4,553,820 0	\$3,104,375 0
c. Total	20	\$4,553,820	\$3,104,375
<ol> <li>Former Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	* 25 1	\$3,783,645 319,142	\$3,783,645 319,142
c. Total	26	\$4,102,787	\$4,102,787
<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> <li>d. Total</li> </ol>	* 45 1 0 46	\$8,337,465 319,142 0  \$8,656,607	\$6,888,020 319,142 0 
d. Total	==========	========	
B. DETERMINATION OF UNFUNDED ACTUARIA	L ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (2.47% of Table</li> </ol>	1,F6)		\$7,207,162 4,396,800
3. UAAL (B1-B2)			\$2,810,362
C. NORMAL COST			\$138,189

<sup>\*</sup> Includes MPRIF Reserves of \$3,653,636.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 91) 1. Elected PERA Police and Fire 2. Elected Relief Association 3. No Election (Greater Value)	\$8,337,465 319,142 0
	4. Total	\$8,656,607
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$656,788 0
	3. Total	\$656,788
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$985,182 0
	3. Total	\$985,182
D.	CURRENT VALUE OF TOTAL ASSETS (2.47% of Table 1, F6)	\$4,396,800
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11I, B.2.b + B.2.c + B.2.d + B.2.e)	\$4,141,553 (1,247,931)
	3. Total	\$2,893,622
F.	LOSS (GAIN) [A-B-C-D-E]	(\$275,785)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$17,398) 0 0 (258,387)
	4. Total	(\$275,785)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$31,883)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

### JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	<b>\$62,192</b> *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$93,289 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$4,141,553	12/31/2010	\$429,018
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	(2,480,173)	12/31/2004	(309,590)
e.	7/1/91	1,232,242	12/31/2005	147,687
f.	7/1/92	(275,785)	12/31/2006	(31,883)
g.	Total	\$2,617,837		\$235,232

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$390,713

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS O	F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				1					1
40-44 45-49				1 2	4 1	2	1		5 6
50-54 55-59						2	1		3
60-64 65+									
ALL				4	- 5	4	2		15
			AVE	RAGE ANN	UAL EARN	INGS			
				YEARS 0	F SERVIC	E			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39				36,534					36,534
40-44 45-49				33,493 34,165	35,556 35,565	35,949	42,513		35,143 36,384
50-54 55-59						35,987	36,179		36,051
60-64 65+									
ALL				34,589	35,558	35,968	39,346		35,913
	PRIOR		EAR EA	RNINGS (	ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
ALL				138,356	177,790	143,872	78,692		538,695

### MILLIMAN & ROBERTSON, INC.

## HIBBING POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS RETIRED								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>	
<50 50-54									
55-59 60-64	1	4	3					4 4	
65-69 70-74			1	2	1	1		4 1	
75-79 80-84					1		2	3	
85+					1			1	
ALL	1	4	4	2	3	1	2	17	
			AVERAGE	ANNUAL I	BENEFIT				
				ARS RETII		<u> </u>			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
<50 50-54									
55-59 60-64	19,972	23,456	22,661					23,456 21,989	
65-69 70-74			22,271	18,801	18,063	1,642		15,379 18,063	
75-79 80-84					16,164		18,623	17,803	
85+					17,149			17,149	
ALL	19,972	23,456	22,564	18,801	17,125	1,642	18,623	19,525	
			BENEFIT (		OLLARS) BY	YEARS RI		. ·	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL	
ALL	19,972	93,824	90,256	37,602	51,375	1,642	37,246	331,925	

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# HIBBING POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH								
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54			1					1
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+					2		1	3
ALL			1		2		1	4
				ANNUAL B				
AGE	<u>&lt;1</u>	1-4	<u>YEAR</u> <u>5-9</u>	S SINCE D 10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54	<u></u>	<u></u>	9,578	<u></u>	<u> </u>	<u> </u>	<u>=v.</u>	9,578
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+					3,421		3,421	3,421
ALL			9,578		3,421		3,421	4,960
		<u>annual bei</u>		TUAL DOLL	.ARS) BY Y	EARS SINC		
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL			9,578		6,842		3,421	19,840

- 129 - MILLIMAN & ROBERTSON, INC.

# HIBBING POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	ANNUAL B	ENEFIT			
	- <del></del>			RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79								
80-84								
85+								
ALL								
405						YEARS DIS		AIL
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL								
				100				

- 130 - MILLIMAN & ROBERTSON, INC.

## HIBBING POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Termi	nated
		A a t d u a a	Deferred Retirement	Other Non-Vested
		Actives	<u> Retirement</u>	MOII-AE2 red
Α.	ON JUNE 30, 1991	18	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(3) 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	15 0		
Ε.	TOTAL ON JUNE 30, 1992	15	0	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	14	1	4
В.	ADDITIONS	4	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	(1) 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	17	0	4

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (2.14% of Table 1, F6)	\$3,819,144
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$490,542 735,813 2,374,204
	4. Total Expected Future Assets	\$3,600,559
C.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$7,419,703
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$3,966,201
	2. Current Employees	
	a. Accumulated Employee Contributions \$459,814 Including Allocated Investment Income*	
	b. Employer-Financed Vested 1,652,302 c. Employer-Financed Nonvested 0	
	d. Total	\$2,112,116
	3. Total Pension Benefit Obligation	\$6,078,317
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,341,386
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$7,419,703
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$2,259,173
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	14 1	\$3,140,273 313,229	\$2,073,736 280,581
c. Total	15		\$2,354,317
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	21 0	\$3,966,201 0	\$3,966,201 0
c. Total	21	\$3,966,201	\$3,966,201
<ul><li>4. Total</li><li>a. Elected PERA Police and Fire*</li><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li><li>d. Total</li></ul>	35 0 1 36	\$7,106,474 0 313,229  \$7,419,703	\$6,039,937 0 280,581  \$6,320,518
B. DETERMINATION OF UNFUNDED ACTUARIAL			
1. AAL (A4) 2. Current Assets (2.14% of Table 1	\$6,320,518 3,819,144		
3. UAAL (B1-B2)			\$2,501,374
C. NORMAL COST			\$105,013

<sup>\*</sup> Includes MPRIF Reserves of \$3,818,963.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9J)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$7,106,474 0 313,229
	4. Total	\$7,419,703
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$479,656 10,886
	3. Total	\$490,542
C.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$719,484 16,329
	3. Total	\$735,813
D.	CURRENT VALUE OF TOTAL ASSETS (2.14% of Table 1, F6)	\$3,819,144
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$3,150,277 197,500
	(Table 11J, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$3,347,777
F.	LOSS (GAIN) [A-B-C-D-E]	(\$973,573)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election	\$45,957 0
	<ul><li>3. Additional Contributions Made</li><li>4. Other</li></ul>	(695,865) (323,665)
	4. Total	(\$973,573)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$112,552)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$45,897 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$68,845 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$3,150,277	12/31/2010	\$326,333
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	(1,273,977)	12/31/2004	(159,025)
e.	7/1/91	1,471,477	12/31/2005	176,360
f.	7/1/92	(973,573)	12/31/2006	(112,552)
g.	Total	\$2,374,204		\$231,116
		=========		=======================================

#### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$345,858

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### MANKATO FIRE CONSOLIDATION ACCOUNT

### ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE											
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>		
<25 25-29											
30-34 35-39											
40-44 45-49							2		2		
50-54 55-59						1	2		1 2		
60-64 65+								1	1		
ALL						1	4	1	6		
	AVERAGE ANNUAL EARNINGS										
				YEARS OF							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u> 25-29</u>	<u>30+</u>	ALL		
40E											
<25 25-29											
								•			
25-29 30-34							36,075		36,075		
25-29 30-34 35-39 40-44						36,178	36,075 37,278		36,075 36,178 37,278		
25-29 30-34 35-39 40-44 45-49 50-54						36,178	·	37,616	36,178		
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64							·		36,178 37,278		
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65+ ALL			YEAR EA	RNINGS (A	ACTUAL D	36,178 OLLARS)	37,278 36,677 <b>BY YEARS</b>	37,616 OF SERV	36,178 37,278 37,616 36,750		
25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65+	PRIOR ≤1	FISCAL V	<u>YEAR EA</u> 5-9	RNINGS ( <i>I</i> 10-14	ACTUAL DO 15-19	36,178	37,278 36,677	37,616	36,178 37,278 37,616 36,750		

- 136 - **MILLIMAN & ROBERTSON, INC.** 

# MANKATO FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED										
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54		1	1					2		
55-59 60-64			7 1	6	1			7 8		
65-69 70-74				2				2		
75-79 80-84					1 1	2	2 2	3 5		
85+					1		2	3		
ALL		1	9	8	4	2	6	30		
AVERAGE ANNUAL BENEFIT										
				EARS RET						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
<50 50-54		16,442	16,442					16,442		
55-59 60-64			16,454 16,574	16,447	16,442			16,454 16,462		
65-69 70-74				16,771				16,771		
75-79 80-84					16,738 178	16,606	16,475 16,212	16,563 13,163		
85+					15,644		8,386	10,805		
ALL		16,442	16,466	16,528	12,251	16,606	13,691	15,374		
				(ACTUAL D	OLLARS) E	BY YEARS F	RETIRED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
ALL		16,442	148,194	132,224	49,004	33,212	82,146	461,220		

- 137 - MILLIMAN & ROBERTSON, INC.

# MANKATO FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH											
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	15-19	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54		1		1				1 1			
55-59 60-64			1					1			
65-69 70-74											
75-79 80-84			2		1	1		3 1			
85+						1	4	5			
ALL		1	3	1	1	2	4	12			
			AVERAGE	ANNUAL E	BENEFIT						
105				S SINCE							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>			
<50 50-54		23,051		9,865				23,051 9,865			
55-59 60-64			9,865					9,865			
65-69 70-74											
75-79 80-84			9,865		9,865	9,865		9,865 9,865			
85+						9,865	7,420	7,909			
ALL		23,051	9,865	9,865	9,865	9,865	7,420	10,149			
	TOTAL	ANNUAL BI	ENEFIT (AC	TUAL DOLI	LARS) BY	YEARS SIN	CE DEATH				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL			
ALL		23,051	29,595	9,865	9,865	19,730	29,680	121,788			

- 138 - **MILLIMAN & ROBERTSON, INC.** 

# MANKATO FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

	YEARS DISABLED											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>				
<50 50-54			1					1				
55-59 60-64												
65-69 70-74												
75-79 80-84												
85+												
ALL			1					1				
	AVERAGE ANNUAL BENEFIT											
*05			YEA	RS DISABL	.ED	00.04	0.5	A. 1				
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL				
<50 50-54			16,442					16,442				
55-59 60-64												
65-69 70-74												
75-79 80-84												
85+												
ALL			16,442					16,442				
AGE	TOTA <1	L ANNUAL 1-4	BENEFIT ( 5-9	ACTUAL DO 10-14	<u> 15-19</u>	YEARS DIS 20-24	SABLED 25+	ALL				
	<u> </u>	<u>* -T</u>		<u> </u>	<u> </u>	<u> :</u>	<del>= 7.1</del>					
ALL			16,442					16,442				

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MILLIMAN & ROBERTSON, INC.

# MANKATO FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			<u>Terminated</u>		
		Antiuna	Deferred	Other	
		<u>Actives</u>	<u>Retirement</u>	Non-Vested	
Α.	ON JUNE 30, 1991	7	0	0	
В.	ADDITIONS	0	0	0	
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 (1) 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	
D.	DATA ADJUSTMENTS	0	0	0	
	Vested Non-Vested	6 0			
Ε.	TOTAL ON JUNE 30, 1992	6	0	0	
			Recipients		
		Retirement Annuitants	<u>Disabled</u>	Survivors	
Α.	ON JUNE 30, 1991	30	1	10	
В.	ADDITIONS	0	1	2	
<b>C.</b>	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 (1) 0 0	0 0 0 0	
D.	DATA ADJUSTMENTS	0	0	0	
Ε.	TOTAL ON JUNE 30, 1992	30	1	12	

### MANKATO FIRE CONSOLIDATION ACCOUNT

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

### JULY 1, 1992

Α.	CURRENT ASSETS (3.21% of Table 1, F6)	\$5,725,980					
В.	EXPECTED FUTURE ASSETS						
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$108,334 162,501 2,302,513					
	4. Total Expected Future Assets	\$2,573,348					
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$8,299,328					
D.	CURRENT PENSION BENEFIT OBLIGATIONS						
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>						
	2. Current Employees						
	a. Accumulated Employee Contributions \$268,080 Including Allocated Investment Income*						
	b. Employer-Financed Vested 1,076,153						
	<ul><li>c. Employer-Financed Nonvested</li><li>d. Total</li></ul>	\$1,344,233					
	3. Total Pension Benefit Obligation	\$7,992,514					
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$306,814					
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$8,299,328					
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$2,266,534					
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0					

\*Estimated

\$40,733

#### MANKATO FIRE CONSOLIDATION ACCOUNT

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

### JULY 1, 1992

Α.	DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
	<ol> <li>Active Members         <ul> <li>Elected PERA Police and Fire</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	6 0	\$1,651,047 0	\$1,417,695 0
	c. Total	6	\$1,651,047	\$1,417,695
	<ol> <li>Former Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	0	\$0 0	\$0 0
	c. Total	0	\$0	\$0
,	3. Benefit Recipients a. Elected PERA Police and Fire* b. Elected Relief Association	39 4	\$6,467,905 180,375	\$6,467,905 180,375
	c. Total	43	\$6,648,281	\$6,648,281
	<ol> <li>Total         <ul> <li>Elected PERA Police and Fire*</li> <li>Elected Relief Association</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	45 4 0	\$8,118,952 180,375 0	\$7,885,600 180,375 0
	d. Total	49	\$8,299,328	\$8,065,976
В.	DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI		
	<ol> <li>AAL (A4)</li> <li>Current Assets (3.21% of Table 1,</li> </ol>	F6)		\$8,065,976 5,725,980
	3. UAAL (B1-B2)			\$2,339,996

<sup>\*</sup> Includes MPRIF Reserves of \$5,791,138.

C. NORMAL COST

## MANKATO FIRE CONSOLIDATION ACCOUNT

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9K)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$8,118,952 180,375 0
	4. Total	\$8,299,328
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$108,334 0
	3. Total	\$108,334
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$162,501 0
	3. Total	\$162,501
D.	CURRENT VALUE OF TOTAL ASSETS (3.21% of Table 1, F6)	\$5,725,980
Ε.	2. 15 year amortization of prior years' loss (gain)	\$6,914,020 (4,867,322)
	(Table 11K, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$2,046,698
F.	LOSS (GAIN) [A-B-C-D-E]	\$255,815
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$214,875 0 0 40,940
	4. Total	\$255,815
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	\$29,574

#### MANKATO FIRE CONSOLIDATION ACCOUNT

#### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

#### JULY 1, 1992

				Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRI	BUTIONS		8.00%	\$18,786 *
В.	EMPLOYER CONTRI (Before Adjustm	BUTIONS ent For State Ai	d)		
		icipal contribut municipal contri		12.00%	\$28,179 *
		<u>Established</u>	Current <u>Balance</u>	Last Payment	Payment Amount **
	a. b.	Initial 7/1/88	\$6,914,020 0	12/31/2010 12/31/2002	\$716,214 0
	c. d.	7/1/89 7/1/90	0 0	12/31/2003 12/31/2004	0

(4,867,322)

\$2,302,513

========

255,815

12/31/2005

12/31/2006

<u>--</u>--

#### С. ESTIMATED TOTAL STATUTORY CONTRIBUTION

e. f.

g.

\$209,392

\$162,427

(583, 361)

29,574

7/1/91

7/1/92

Total

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### RED WING FIRE CONSOLIDATION ACCOUNT

### ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE											
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u> 10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>		
<25 25-29											
30-34 35-39											
40-44 45-49						3			3		
50-54 55-59						3 1		1	3 2		
60-64 65+											
ALL						7		1	8		
AVERAGE ANNUAL EARNINGS											
					SERVIC						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL		
<25 25-29											
30-34 35-39											
40-44 45-49						38,032			38,032		
50-54 55-59						39,409 36,941		42,631	39,409 39,786		
60-64 65+											
ALL						38,466		42,631	38,986		
	PRIOR	FISCAL Y	EAR EA	RNINGS (	ACTUAL D	OLLARS)		OF SERV			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u> 15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>		
ALL						269,262		42,631	311,888		

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# RED WING FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED												
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL				
<50 50-54		1						1				
55-59 60-64	2	5	1 3					6 5				
65-69 70-74				1	2			<b>2</b> 1				
75-79 80-84												
85+												
ALL	2	6	4	1	2			15				
	AVERAGE ANNUAL BENEFIT											
				EARS RETI								
<u>AGE</u>	<1	1-4	<u>5-9</u>	10-14	15-19	20-24	<u>25+</u>	ALL				
<50 50-54		8,456						8,456				
55-59 60-64	18,832	17,199	14,626 14,674					16,770 16,337				
65-69 70-74				14,535	11,964			11,964 14,535				
75-79 80-84												
85+												
ALL	18,832	15,742	14,662	14,535	11,964			15,282				
						YEARS RE						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
ALL	37,664	94,452	58,648	14,535	23,928			229,230				
				146								

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# RED WING FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH												
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54				2				2				
55-59 60-64					1			1				
65-69 70-74			1					1				
75-79 80-84												
85+							1	1				
ALL			1	2	1		1	5				
	AVERAGE ANNUAL BENEFIT											
				S SINCE E								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54				2,342				2,342				
55-59 60-64					9,712			9,712				
65-69 70-74			7,898					7,898				
75-79 80-84												
85+							5,033	5,033				
ALL			7,898	2,342	9,712		5,033	5,465				
805				TUAL DOLL	ARS) BY	YEARS SINC	E DEATH	A1.7				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>				
ALL			7,898	4,684	9,712		5,033	27,325				
			-	147 -								

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# RED WING FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

	·		YEA	RS DISABL	.ED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	ANNUAL E	BENEFIT			
405			YEA	RS DISABL	.ED			· · · · · · · · · · · · · · · · · · ·
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
	TOTAL	L ANNUAL B	ENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	ABLED	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	15-19	20-24	<u>25+</u>	ALL
ALL								

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# RED WING FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	in <u>ated</u>
		Activos	Deferred Retirement	Other Non-Vested
		<u>Actives</u>	·	
Α.	ON JUNE 30, 1991	11	0	0
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(3) 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	8 0		
Ε.	TOTAL ON JUNE 30, 1992	8	0	0
			<u>Recipient</u> s	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	12	0	6
В.	ADDITIONS	3	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 (1) 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	15	0	5

#### RED WING FIRE CONSOLIDATION ACCOUNT

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (3.00% of Table 1, F6)	\$5,347,095
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$158,972 238,458 302,912
	4. Total Expected Future Assets	\$700,342
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$6,047,437
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$3,854,288
	2. Current Employees	
	a. Accumulated Employee Contributions \$285,092 Including Allocated Investment Income*	
	b. Employer-Financed Vested 1,404,715 c. Employer-Financed Nonvested 0	
	d. Total	\$1,689,807
	3. Total Pension Benefit Obligation	\$5,544,095
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$503,342
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$6,047,437
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$197,000
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

\$66,902

#### RED WING FIRE CONSOLIDATION ACCOUNT

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

JULY 1, 1992

Α.	DETERMINATION OF ACTUARIAL ACCRUED	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued Liability
•••	LIABILITY (AAL)			
	<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	6 2	\$1,571,161 621,988	\$1,292,616 498,416
	c. Total	8	\$2,193,149	\$1,791,032
	<ol> <li>Former Members         <ul> <li>Elected PERA Police and Fire</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	0 0	\$0 0	\$0 0
	c. Total	0	\$0	\$0
	<ol> <li>Benefit Recipients         <ul> <li>Elected PERA Police and Fire*</li> <li>Elected Relief Association</li> </ul> </li> </ol>	7 13	\$1,613,396 2,240,892	\$1,613,396 2,240,892
	c. Total	20	\$3,854,288	\$3,854,288
	<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> </ol>	13 13 2	\$3,184,557 2,240,892 621,988	\$2,906,012 2,240,892 498,416
	d. Total	28	\$6,047,437	\$5,645,320
В.	DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	=========
	<ol> <li>AAL (A4)</li> <li>Current Assets (3.00% of Table 1,</li> </ol>	,F6)		\$5,645,320 5,347,095
	3. UAAL (B1-B2)			\$298,225

<sup>\*</sup> Includes MPRIF Reserves of \$1,613,396.

C. NORMAL COST

#### RED WING FIRE CONSOLIDATION ACCOUNT

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9L)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$3,184,557 2,240,892 621,988
	4. Total	\$6,047,437
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$118,023 40,949
	3. Total	\$158,972
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$177,035 61,423
	3. Total	\$238,458
D.	CURRENT VALUE OF TOTAL ASSETS (3.00% of Table 1, F6)	\$5,347,095
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$1,353,372 (840,930)
	(Table 11L, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$512,442
F.	LOSS (GAIN) [A-B-C-D-E]	(\$209,530)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$25,417) 0 0 0 (184,113)
	4. Total	(\$209,530)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$24,223)

#### RED WING FIRE CONSOLIDATION ACCOUNT

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

#### JULY 1, 1992

				Percent of Payroll	Dollar Amount
Α.	EMI	PLOYEE CONTRIBUTIONS		8.00%	\$26,573 *
В.		PLOYER CONTRIBUTIONS efore Adjustment For State Aid	)		
	1. 2.	Regular municipal contribution Additional municipal contribution		12.00%	\$39,859 *
			Current	Last.	Payment

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment <u>Amount **</u>
a. b. c. d. e. f.	Initial 7/1/88 7/1/89 7/1/90 7/1/91 7/1/92	\$1,353,372 0 0 (391,256) (449,674) (209,530)	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005 12/31/2006	\$140,194 0 0 (48,839) (53,895) (24,223)
g.	Total	\$302,912		\$13,237

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$79,669

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### RED WING POLICE CONSOLIDATION ACCOUNT

### ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS OF		Ē			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39									
40-44 45-49						2 1			2 1
50-54 55-59							3		3
60-64 65+									
ALL						3	3		6
			AVE	RAGE ANNU	JAL EARN	INGS			
					SERVIC				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39									
40-44 45-49						39,086 42,510			39,086 42,510
50-54 55-59							45,120		45,120
60-64 65+									
ALL						40,227	45,120		42,673
	PRIOR	FISCAL Y		RNINGS (/		OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
ALL						120,681	135,360		256,038

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# RED WING POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

				EARS RETI	RED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54		1		1				2
55-59 60-64			3 1	1				3 2
65-69 70-74					2	1		3
75-79 80-84							2	2
85+								
ALL		1	4	2	2	1	2	12
			AVERAGI	E ANNUAL	BENEFIT			
405	-			EARS RETI	RED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54		18,794		16,343				17,569
55-59 60-64			19,713 19,180	16,293				19,713 17,737
65-69 70-74					11,762	4,525		9,350
75-79 80-84							3,735	3,735
85+								
ALL		18,794	19,580	16,318	11,762	4,525	3,735	13,773
405			BENEFIT					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL		18,794	78,320	32,636	23,524	4,525	7,470	165,276
			,	- 155 -				

MILLIMAN & ROBERTSON, INC.

# RED WING POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH								
<u>AGE</u>	<1	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		1						1
55-59 60-64			1			1		1 1
65-69 70-74								
75-79 80-84						1		1
85+							1	1
ALL		1	1			2	1	5
			AVERAGE	ANNUAL I	BENEFIT			
105				S SINCE				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54		16,004						16,004
55-59 60-64			20,631			5,411		20,631 5,411
65-69 70-74								
75-79 80-84						2,618		2,618
85+							2,624	2,624
ALL		16,004	20,631			4,015	2,624	9,458
AGE		ANNUAL BE	NEFIT (AC 5-9	TUAL DOLI 10-14	LARS) BY Y 15-19	EARS SINC 20-24	E DEATH 25+	ALL
ALL	<u> </u>	16,004	20,631	<del>** ** *</del>		8,030	2,624	47,290

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# RED WING POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

	<u> </u>		YE!	ARS DISAB	LED			
<u>AGE</u>	<1	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54				2				2
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL				2				2
			AVERAGE	ANNUAL	BENEFIT			
			YE/	ARS DISAB	LED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54				15,875				15,875
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL				15,875				15,875
		AL ANNUAL	BENEFIT (	ACTUAL D	OLLARS) BY	YEARS DI	SABLED	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>
ALL				31,750				31,750
			-	157 -				

MILLIMAN & ROBERTSON, INC.

# RED WING POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		Actives	Deferred Retirement	Other Non-Vested
Α.	ON JUNE 30, 1991	6	1	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 (1) 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	6 0		
Ε.	TOTAL ON JUNE 30, 1992	6	0	0
			Recipients	
		Retirement Annuitants	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	11	3	5
В.	ADDITIONS	1	1	0
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	(1) 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	(1)	0
Ė.	TOTAL ON JUNE 30, 1992	12	2	5

### RED WING POLICE CONSOLIDATION ACCOUNT

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (3.73% of Table 1, F6)	\$6,646,286
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$91,808 137,712 1,410,450
	4. Total Expected Future Assets	\$1,639,970
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$8,286,256
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$5,198,890
	2. Current Employees	
	a. Accumulated Employee Contributions \$222,666 Including Allocated Investment Income* b. Employer-Financed Vested 2,294,604 c. Employer-Financed Nonvested 0 d. Total	\$2,517,270
	3. Total Pension Benefit Obligation	\$7,716,160
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$570,096
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$8,286,256
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$1,069,874
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

<sup>\*</sup>Estimated

## RED WING POLICE CONSOLIDATION ACCOUNT

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 6	\$0 3,087,366	\$0 2,687,369
c. Total	6	\$3,087,366	\$2,687,369
<ol> <li>Former Members         <ul> <li>Elected PERA Police and Fire</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	6 13	\$309,318 4,889,572	\$309,318 4,889,572
c. Total	19	\$5,198,890	\$5,198,890
<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> </ol>	6 13 6	\$309,318 4,889,572 3,087,366	\$309,318 4,889,572 2,687,369
d. Total	25	\$8,286,256	\$7,886,259
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILIT	 Y (UAAL)	=======================================
<ol> <li>AAL (A4)</li> <li>Current Assets (3.73% of Table 1,</li> </ol>	F6)		\$7,886,259 6,646,286
3. UAAL (B1-B2)			\$1,239,973
C. NORMAL COST			\$86,484

<sup>\*</sup> Includes MPRIF Reserves of \$238,621.

## RED WING POLICE CONSOLIDATION ACCOUNT

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9M)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$309,318 4,889,572 3,087,366
	4. Total	\$8,286,256
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$0 91,808
	3. Total	\$91,808
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greaton Value)	
	and the transfer value)	\$0 137,712
	3. Total	\$137,712
D.	CURRENT VALUE OF TOTAL ASSETS (3.73% of Table 1, F6)	\$6,646,286
E.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)  (Table 11M, B.2.b + B.2.c + B.2.d + B.2.e)  3. Total	\$1,863,670 (353,054)
F.	LOSS (GAIN) [A-B-C-D-E]	\$1,510,616
G.	ANALYSIS OF LOSS (GAIN)	(\$100,166) === <b>=</b> ======
	1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$7,987 0 0
	4. Total	(108,153)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$100,166) =======
	OKTIZATION OF LUSS (GAIN)	(\$11,580)

#### RED WING POLICE CONSOLIDATION ACCOUNT

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

			Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIBUTIONS		8.00%	\$21,814 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid	d)		
	<ol> <li>Regular municipal contribut</li> <li>Additional municipal contri</li> </ol>		12.00%	\$32,721 *
	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **

	<u>Established</u>	<u>Balance</u>	<u>Payment</u>	Amount **
a.	Initial	\$1,863,670	12/31/2010	\$193,055
b.	7/1/88	0	12/31/2002	0
c.	7/1/89	0	12/31/2003	0
d.	7/1/90	780,220	12/31/2004	97,392
e.	7/1/91	(1,133,274)	12/31/2005	(135,826)
f.	7/1/92	(100,166)	12/31/2006	(11,580)
_	Takal	£1 410 450		6140 041
g.	Total	\$1,410,450		\$143,041
		=========		==========

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$197,576

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

## ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS O	F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	ALL
<25 25-29									
30-34 35-39					2				2
40-44 45-49				1	4 3	1 4	1		6 8
50-54 55-59					1		1		1 1
60-64 65+									
ALL				1	10	5	2		18
			AVE	RAGE ANN	IUAL EARN	INGS			
				YEARS C	F SERVIC	Ε			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39				٠	38,442				38,442
40-44 45-49				38,870	38,156 40,883	37,218 35,614	40,063		38,119 38,146
50-54 55-59					40,137		36,275		40,137 36,275
60-64 65+									
ALL				38,870	39,229	35,935	38,169		38,176
	PRIOR	FISCAL Y	'EAR EA	RNINGS (	ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
ALL				38,870	392,290	179,675	76,338		687,168

## MILLIMAN & RÖBERTSON, INC.

# RICHFIELD POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS RETIRED							
<u>AGE</u>	<1	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25</u> +	ALL
<50 50-54	2	1						3
55-59 60-64		1 2	1	1 1	1			3 4
65-69 70-74			1	4	1 1			6 1
75-79 80-84								
85+								
ALL	2	4	2	6	3			17
			AVERAG	E ANNUAL	BENEFIT			
	<del></del>			EARS RETI				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54	16,953	19,152						17,686
55-59 60-64		21,572 22,194	23,189	19,414 19,414	19,354			20,113 21,748
65-69 70-74			19,954	18,642	19,354 19,414			18,979 19,414
75-79 80-84								
85+								
ALL	16,953	21,278	21,572	18,899	19,374			19,628
Act		AL ANNUAL	BENEFIT	(ACTUAL D	OLLARS) B	Y YEARS RE		411
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	33,906	85,112	43,144	113,394	58,122			333,676

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# RICHFIELD POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54								
55-59 60-64		1	1					2
65-69 70-74		1	1			1		2 1
75-79 80-84		1	2		1 1			4 1
85+								
ALL		3	4		2	1		10
			AVERAGE	E ANNUAL I	BENEFIT			
405				S SINCE I				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64		9,707	9,707					9,707
65-69 70-74		9,707	9,677			9,677		9,692 9,677
		0.707			0.707			
75-79 80-84		9,707	9,707		9,707 9,707			9,707 9,707
85+								
ALL		9,707	9,700		9,707	9,677		9,701
_				TUAL DOLE	ARS) BY Y	EARS SINC		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL		29,121	38,800		19,414	9,677		97,010

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# RICHFIELD POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		1	1					2
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		1	1					2
			AVERAGE	E ANNUAL E	BENEFIT			
405	·		YE#	RS DISABL	.ED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54		19,414	18,615					19,015
55-59 60-64								
65-69 70-74								
75-79								
80-84								
85+								
ALL		19,414	18,615					19,015
***	TOT/	AL ANNUAL	BENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	ABLED	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL		19,414	18,615					38,030
				166				

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# RICHFIELD POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	erminated	
		<u> Actives</u>	Deferred <u>Retirement</u>	Other Non-Vested	
Α.	ON JUNE 30, 1991	0	0	0	
В.	ADDITIONS	18	4	0	
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	
D.	DATA ADJUSTMENTS	0	0	0	
	Vested Non-Vested	18 0			
Ε.	TOTAL ON JUNE 30, 1992	18	4	0	
		Retirement Annuitants	RecipientsDisabled	Survivors	
Α.	ON JUNE 30, 1991	0	0	0	
В.	ADDITIONS	17	2	12	
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 (2) 0 0	
D.	DATA ADJUSTMENTS	0	0	0	
Ε.	TOTAL ON JUNE 30, 1992	17	2	10	

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (5.91% of Table 1, F6)	\$10,537,673
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$498,070 747,103 134,320
	4. Total Expected Future Assets	\$1,379,493
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$11,917,166
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$6,373,516
	2. Current Employees	
	a. Accumulated Employee Contributions \$430,428 Including Allocated Investment Income*	
	b. Employer-Financed Vested 3,059,709 c. Employer-Financed Nonvested 1,215,708	
	d. Total	\$4,705,845
	3. Total Pension Benefit Obligation	\$11,079,361
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$837,805
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$11,917,166
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$541,688
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	3 10	\$841,241 4,702,409	\$661,127 3,435,433
c. Total	13	\$5,543,650	\$4,096,560
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 4	\$0 153,091	\$0 153,091
c. Total	4	\$153,091	\$153,091
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	20 3	\$4,252,761 1,967,664	\$4,252,761 1,967,664
c. Total	23	\$6,220,425	\$6,220,425
<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> </ol>	23 3 14	\$5,094,002 1,967,664 4,855,500	\$4,913,888 1,967,664 3,588,524
d. Total	40	\$11,917,166	\$10,470,076
B. DETERMINATION OF UNFUNDED ACTUARIAL			
<ol> <li>AAL (A4)</li> <li>Current Assets (5.91% of Table 1</li> </ol>	,F6)		\$10,470,076 10,537,673
3. UAAL (B1-B2)			(\$67,597)
C. NORMAL COST			\$150,844

<sup>\*</sup> Includes MPRIF Reserves of \$3,764,351.

# NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9N)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$5,094,002 1,967,664 4,855,500
	4. Total	\$11,917,166
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$77,678 420,392
	3. Total	\$498,070
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS 1. Elected PERA Police and Fire 2. No Election (Greater Value)	\$116,516 630,587
	3. Total	\$747,103
D.	CURRENT VALUE OF TOTAL ASSETS (5.91% of Table 1, F6)	\$10,537,673
E.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)     (Table 11N, B.2.b + B.2.c + B.2.d + B.2.e)  3. Total	\$4,132,231 0  \$4,132,231
F.	LOSS (GAIN) [A-B-C-D-E]	(\$3,997,911)
G.	ANALYSIS OF LOSS (GAIN)  1. MPRIF Mortality  2. PERA Benefit Election  3. Additional Contributions Made  4. Other  4. Total	(\$201,768) (839,582) 0 (2,956,561) (\$3,997,911)
н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$462,188)
	<b>C</b> 1911,	(+:-=,===)

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

#### JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$40,531 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$60,797 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$4,132,231	12/31/2010	\$428,052
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	0	12/31/2005	0
f.	7/1/92	(3,997,911)	12/31/2006	(462,188)
g.	Total	\$134,320		(\$34,136)

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$67,192

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>		
<25 25-29											
30-34 35-39				5	4				9		
40-44 45-49				1	6	1 4	3		8 11		
50-54 55-59						5	8 1	1	14 2		
60-64 65+								1	1		
ALL				6	14	10	12	3	45		
AVERAGE ANNUAL EARNINGS											
			··-		F SERVIC						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	<u>ALL</u>		
<25 25-29											
30-34											
35-39				41,530	42,444				41,936		
40-44 45-49				46,284	42,394 43,765	51,506 45,842	38,717		44,019 43,144		
50-54 55-59						40,701	44,118 37,332	41,144 57,203	42,685 47,268		
60-64 65+								44,195	44,195		
ALL				42,322	42,800	43,838	42,202	47,514	43,121		
	PRIC	OR FISCAL		ARNINGS			Y YEARS	OF SERVI	CE		
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL		
ALL				253	599	438	506	142	1,940		

MILLIMAN & RÖBERTSON, INC.

# ROCHESTER FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS RETIRED											
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54		5						5				
55-59 60-64	1	1 2	1 7	6				2 16				
65-69 70-74		2	3	8 6	7 1			20 7				
75-79 80-84					1	1	1	3				
85+		1			1			2				
ALL	1	11	11	20	10	1	1	55				
AVERAGE ANNUAL BENEFIT												
405				EARS RETI				<del></del>				
AGE	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54		20,139						20,139				
55-59 60-64	25,995	18,694 24,957	19,330 21,692	20,622				19,012 21,968				
65-69 70-74		23,021	21,467	21,457 21,243	19,692 20,656			20,997 21,159				
75-79 80-84					21,365	19,330	19,330	20,008				
85+		21,869			17,804			19,837				
ALL	25,995	21,565	21,416	21,142	19,767	19,330	19,330	21,054				
	T0T	AL ANNUAL			OLLARS) B		ETIRED					
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
ALL	25,995	237,215	235,576	422,840	197,670	19,330	19,330	1,157,970				

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## ROCHESTER FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54											
55-59 60-64		1		1		1		1 2			
65-69 70-7 <b>4</b>			2	1		1		3 1			
75-79 80-84		1			1	1	5 1	6 3			
85+							1	1			
ALL		2	2	2	1	3	7	17			
AVERAGE ANNUAL BENEFIT											
	<del></del>			RS SINCE							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54											
55-59 60-64		8,853		9,156		9,156		8,853 9,156			
65-69 70-74			9,158	9,156		9,156		9,157 9,156			
75-79 80-84		9,156			9,156	9,156	9,033 9,156	9,054 9,156			
85+							8,853	8,853			
ALL		9,005	9,158	9,156	9,156	9,156	9,025	9,085			
	TOTAL	ANNUAL BI	ENEFIT (A	CTUAL DOL	LARS) BY	YEARS SIN	CE DEATH	,			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	15-19	<u>20-24</u>	<u>25+</u>	ALL			
ALL		18,010	18,316	18,312	9,156	27,468	63,175	154,445			

- 174 - MILLIMAN & ROBERTSON, INC.

# ROCHESTER FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED												
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54		1	1	1				3				
55-59 60-64												
65-69 70-74												
75-79 80-84												
85+												
ALL		1	1	1				3				
AVERAGE ANNUAL BENEFIT												
YEARS DISABLED												
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>				
<50 50-54		18,312	18,312	13,637				16,754				
55-59 60-64												
65-69 70-74												
75-79 80-84												
85+												
ALL		18,312						16,754				
			BENEFIT (	ACTUAL [	OLLARS) BY	YEARS DIS						
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
ALL		18,312	18,312	13,637				50,262				
			-	175 -								

- 1/5 - MILLIMAN & ROBERTSON, INC.

## ROCHESTER FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		Actives	Deferred Retirement	Other Non-Vested
A.	ON JUNE 30, 1991	46	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(1) 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	39 6		
Ε.	TOTAL ON JUNE 30, 1992	45	0	0
		Retirement Annuitants	RecipientsDisabled	Survivors
Α.	ON JUNE 30, 1991	56	3	18
В.	ADDITIONS	1	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	0 0 0 0	0 (2) 0 0
D.	DATA ADJUSTMENTS	(1)	0	1
Ε.	TOTAL ON JUNE 30, 1992	55	3	17

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

JULY 1, 1992

Α.	CURRENT ASSETS (11.19% of Table 1, F6)	\$19,928,503						
В.	EXPECTED FUTURE ASSETS							
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$1,620,547 2,430,820 9,709,431						
	4. Total Expected Future Assets	\$13,760,798						
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$33,689,301						
D.	CURRENT PENSION BENEFIT OBLIGATIONS							
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$20,444,547						
	2. Current Employees							
	a. Accumulated Employee Contributions \$1,513,095 Including Allocated Investment Income* b. Employer-Financed Vested 7,016,323 c. Employer-Financed Nonvested 545,389							
	d. Total	\$9,074,807						
	3. Total Pension Benefit Obligation	\$29,519,354						
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$4,169,947						
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$33,689,301						
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$9,590,851						
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0						

\*Estimated

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>Elected PERA Police and Fire</li> <li>No Election (Greater Value)</li> </ul> </li> </ol>	22 23	\$6,138,342 7,106,412	\$4,224,776 5,378,568
c. Total	45	\$13,244,754	\$9,603,344
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	9 66	\$1,635,698 18,808,849	\$1,635,698 18,808,849
c. Total	75	\$20,444,547	\$20,444,547
4. Total a. Elected PERA Police and Fire* b. Elected Relief Association c. No Election (Greater Value) d. Total	31 66 23 1	\$7,774,040 18,808,849 7,106,412  \$33,689,301	\$5,860,474 18,808,849 5,378,568  \$30,047,891
	=======================================	======================================	=======================================
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (11.19% of Table</li> </ol>	1,F6)		\$30,047,891 19,928,503
3. UAAL (B1-B2)			\$10,119,388
C. NORMAL COST			\$369,139

<sup>\*</sup> Includes MPRIF Reserves of \$1,183,085.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 90)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$7,774,040 18,808,849 7,106,412
	4. Total	\$33,689,301
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$877,538 743,009
	3. Total	\$1,620,547
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$1,316,306 1,114,514
	3. Total	\$2,430,820
D.	CURRENT VALUE OF TOTAL ASSETS (11.19% of Table 1, F6)	\$19,928,503
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$9,059,255 1,348,654
•	(Table 110, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$10,407,909
F.	LOSS (GAIN) [A-B-C-D-E]	(\$698,478)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$49,142) (69,553) 0 (579,783)
	4. Total	(\$698,478)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$80,749)

\$1,432,644

#### ROCHESTER FIRE CONSOLIDATION ACCOUNT

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

				Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIE	BUTIONS		8.00%	\$165,327 *
В.	EMPLOYER CONTRIE (Before Adjustme		d)		
		icipal contribut nunicipal contri	12.00%	\$247,990 *	
		<u>Established</u>	Current Balance	Last <u>Payment</u>	Payment Amount **
	a. b. c. d. e. f.	Initial 7/1/88 7/1/89 7/1/90 7/1/91 7/1/92	\$9,059,255 0 0 0 1,348,654 (698,478)	12/31/2010 12/31/2002 12/31/2003 12/31/2004 12/31/2005 12/31/2006	\$938,436 0 0 0 161,640 (80,749)
	g.	Total	\$9,709,431		\$1,019,327

ESTIMATED TOTAL STATUTORY CONTRIBUTION

С.

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>			
<25 25-29												
30-34 35-39				1 6	9				1 15			
40-44 45-49					6 3	1 12	3		7 18			
50- <b>54</b> 55-59						2	9 1	3 1	14 2			
60-64 65+		·										
ALL				7	18	15	13	4	57			
AVERAGE ANNUAL EARNINGS												
					F SERVIC							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL			
<25 25-29							·					
30-34 35-39				44,175 42,833	44,996				44,175 44,131			
40-44 45-49					40,160 42,349	46,554 45,809	56,749		41,073 47,056			
50-54 55-59						42,051	46,442 53,574	51,152 41,391	46,824 47,483			
60-64 65+												
ALL				43,025	42,943	45,358	49,369	48,712	45,458			
								OF SERVI				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>			
ALL				301	772	680	641	194	2,591			

MILLIMAN & ROBERTSON, INC.

# ROCHESTER POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS_RETIRED											
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL				
<50 50-54		2						2				
55-59 60-64	1	3 2	5 3	4				9 9				
65-69 70-74		1	6 1	6 2	2 3	1		15 7				
75-79 80-84					3 1	1	2	3 4				
85+							· 1	1				
ALL	1	8	15	12	. 9	2	3	50				
AVERAGE ANNUAL BENEFIT												
ACE		1.4		EARS RETI		20.04	25.	61.1				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
<50 50-54		19,837						19,837				
55-59 60-64	21,327	22,424 22,479	19,005 21,835	19,403				20,403 20,897				
65-69 70-74		21,087	21,275 23,787	18,816 20,959	21,359 19,155	20,560		20,290 20,533				
75-79 80-84					21,092 20,560	20,560	19,453	21,092 20,007				
85+							21,359	21,359				
ALL	21,327	21,624	20,798	19,369	20,447	20,560	20,088	20,482				
		AL ANNUAL										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL				
ALL	21,327	172,992	311,970	232,428	184,023	41,120	60,264	1,024,100				

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# ROCHESTER POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH											
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u> 20-24</u>	<u>25+</u>	ALL			
<50 50-54			1					1			
55-59 60-64			1		1			2 1			
65-69 70-74			1		1		1	1 2			
75-79 80-84		1		1		1		2 1			
85÷			2				1	3			
ALL		1	6	1	2	1	2	13			
AVERAGE ANNUAL BENEFIT											
YEARS SINCE DEATH											
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54			8,811					8,811			
55-59 60-64			9,154 9,154		8,811			8,983 9,154			
65-69 70-74			8,811		8,811		8,811	8,811 8,811			
75-79 80-84		8,811		9,154		8,939		9,047 8,811			
85+			9,154				9,154	9,154			
ALL		8,811	9,040	9,154	8,811	8,939	8,983	8,979			
	TOTAL	ANNUAL BE	NEFIT (AC	TUAL DOLI	LARS) BY	YEARS SIN	CE DEATH				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL			
ALL		8,811	54,240	9,154	17,622	8,939	17,966	116,727			

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# ROCHESTER POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

			YEA	RS DISABI	_ED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54					1			1
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL					1			1
			AVERAGE	ANNUAL E	BENEFIT			
			YEA	RS DISABI	LED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54					11,409			11,409
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL					11,409			11,409
		ANNUAL E				YEARS DIS		411
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL					11,409			11,409
				104				

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## ROCHESTER POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
			Deferred	Other
		<u>Actives</u>	Retirement	Non-Vested
Α.	ON JUNE 30, 1991	59	3	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(2) 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	50 7		
Ε.	TOTAL ON JUNE 30, 1992	57	3	0
		Retirement	Recipients	
		<u>Annuitants</u>	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	48	1	13
В.	ADDITIONS	2	0	0
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	50	1	13

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (11.66% of Table 1, F6)	\$20,768,348
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$2,084,184 3,126,275 6,752,111
	4. Total Expected Future Assets	\$11,962,570
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$32,730,918
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$15,269,656
	2. Current Employees	
	a. Accumulated Employee Contributions \$1,883,895 Including Allocated Investment Income* b. Employer-Financed Vested 9,168,502 c. Employer-Financed Nonvested 452,284 d. Total	\$11,504,681
	3. Total Pension Benefit Obligation	\$26,774,337
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$5,956,581
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$32,730,918
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$6,005,989
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	31 26	\$9,005,703 8,455,559	\$6,060,675 6,449,797
c. Total	57	\$17,461,262	\$12,510,472
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 3	\$0 543,583	\$0 <b>543</b> ,583
c. Total	3	\$543,583	\$543,583
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	33	\$6,591,931 8,134,142	\$6,591,931 8,134,142
c. Total	64	\$14,726,073	\$14,726,073
4. Total a. Elected PERA Police and Fire* b. Elected Relief Association c. No Election (Greater Value) d. Total	31 29  124	\$15,597,634 8,134,142 8,999,142  \$32,730,918	\$12,652,606 8,134,142 6,993,380  \$27,780,128
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCDUED   1 ADT   1		=======================================
1. AAL (A4) 2. Current Assets (11.66% of Table		(II (UNNL)	\$27,780,128 20,768,348
3. UAAL (B1-B2)			\$7,011,780
C. NORMAL COST			\$476,225

<sup>\*</sup> Includes MPRIF Reserves of \$6,331,285.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9P)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$15,597,634 8,134,142 8,999,142
	4. Total	\$32,730,918
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$1,386,014 698,170
	3. Total	\$2,084,184
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$2,079,020 1,047,255
	3. Total	\$3,126,275
D.	CURRENT VALUE OF TOTAL ASSETS (11.66% of Table 1, F6)	\$20,768,348
E.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$8,544,922 (2,140,090)
	(Table 11P, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$6,404,832
F.	LOSS (GAIN) [A-B-C-D-E]	\$347,279
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$113,047 0 0 234,232
	4. Total	\$347,279
н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	\$40,148

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

### JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$220,762 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$331,144 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$8,544,922	12/31/2010	\$885,157
þ.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	(3,096,497)	12/31/2004	(386,523)
e.	7/1/91	956,407	12/31/2005	114,628
f.	7/1/92	347,279	12/31/2006	40,148
g.	Total	\$6,752,111		\$653,410
-		=========		==========

C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$1,205,316

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

				YEARS OF	SERVICE	E			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39									
40-44 45-49						3 7			3 7
50-54 55-59						1	2 2	2 2	5 4
60-64 65+								1	1
ALL						11	4	5	20
			AVE	RAGE ANNU	JAL EARN	INGS			
				YEARS OF	SERVIC	E			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	15-19	20-24	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39									
40-44 45-49						37,297 36,129			37,297 36,129
50-54 55-59						34,955	33,220 40,328	44,242 49,358	37,976 44,843
60-64 65+								48,366	48,366
ALL						36,341	36,774	47,113	39,120
	PRIOR	FISCAL Y	<u>(EAR EA</u>	RNINGS (	ACTUAL D	OLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
ALL						399,751	147,096	235,565	782,400

### MILLIMAN & ROBERTSON, INC.

ST. CLOUD FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			Y	EARS RETI	RED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		1						1
55-59 60-64		2	4	2				2 6
65-69 70-74		3	1	1	2	1	1	9
75-79 80 <b>-</b> 84						1		1
85+							1	1
ALL		6	5	3	5	2	2	23
			AVERAG	E ANNUAL	BENEFIT			
			Y	EARS RETI	RFD			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54		19,624						19,624
55-59 60-64		18,905	19,063	18,709				18,905 18,945
65-69 70-74		28,223	19,893	19,893	19,182 18,471	18,472	17,051	22,038 18,471
75-79 80-84						18,472		18,472
85+							15,156	15,156
ALL		23,684	19,229	19,104	18,755	18,472	16,104	19,934
		AL ANNUAL		(ACTUAL D		Y YEARS R		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL		142,104	96,145	57,312	93,775	36,944	32,208	458,482
				_ 101 _				

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ST. CLOUD FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

			YEAR	S SINCE I	DEATH			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54		2						2
55-59 60-64		2			1			1 2
65-69 70-74			1					1
75-79 80-84							ī	1
85+						1	2	3
ALL		4	1		1	1	3	10
			AVERAGE	ANNUAL I	BENEFIT			
<u>AGE</u>	<u>&lt;1</u>	1-4	YEAR 5-9	S SINCE   10-14	DEATH 15-19	20-24	<u>25+</u>	ALL
	71		<del>5-3</del>	10-14	13-15	<u>20-24</u>	<u> 25T</u>	
<50 50-54		12,150						12,150
55-59 60-64		11,367			11,367			11,367 11,367
65-69 70-74			11,367					11,367
75-79 80-84							11,367	11,367
85+						11,367	11,367	11,367
ALL		11,759	11,367		11,367	11,367	11,367	11,524
		ANNUAL BI		TUAL DOL	LARS) BY			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL		47,036	11,367		11,367	11,367	34,101	115,240

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# ST. CLOUD FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL								
			AVERAGE	ANNUAL B	ENEFIT			
			YEA	RS DISABL	.ED			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59								
60-64								
65-69 70-74								
75-79								
80-84								
85+								
ALL								
AAT			BENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	ABLED	<u> </u>
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u> 20-24</u>	<u>25+</u>	<u>ALL</u>
ALL								

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## ST. CLOUD FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		Actives	Deferred <u>Retirement</u>	Other Non-Vested
Α.	ON JUNE 30, 1991	22	0	0
В.	ADDITIONS	0	0	0
<b>C.</b>	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 (1) 0 0 (1) 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	20 0		
Ε.	TOTAL ON JUNE 30, 1992	20	0	0
		Retirement Annuitants	RecipientsDisabled	Survivors
Α.	ON JUNE 30, 1991	23	0	9
В.	ADDITIONS	0	0	1
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	23	0	10

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (4.41% of Table 1, F6)	\$7,864,853
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$485,466 728,199 4,263,908
	4. Total Expected Future Assets	\$5,477,573
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$13,342,426
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$7,059,718
	2. Current Employees	
	a. Accumulated Employee Contributions \$711,969 Including Allocated Investment Income*	
	b. Employer-Financed Vested 4,008,603 c. Employer-Financed Nonvested 0	
	d. Total	\$4,720,572
	3. Total Pension Benefit Obligation	\$11,780,290
E.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,562,136
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$13,342,426
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$3,915,437
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected Benefits	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	9 11	\$2,920,978 3,361,730	\$2,495,674 2,671,610
c. Total	20	\$6,282,708	\$5,167,284
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	29 4	\$5,449,366 1,610,352	\$5,449,366 1,610,352
c. Total	33	\$7,059,718	\$7,059,718
<ul><li>4. Total</li><li>a. Elected PERA Police and Fire*</li><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li><li>d. Total</li></ul>	38 4 11 53	\$8,370,344 1,610,352 3,361,730  \$13,342,426	\$7,945,040 1,610,352 2,671,610  \$12,227,002
D DETERMINATION OF UNFUNDER ACTUARIAL	ACCOUED I TABLE I	TV /IIAA: \	
<ul><li>B. DETERMINATION OF UNFUNDED ACTUARIAL</li><li>1. AAL (A4)</li><li>2. Current Assets (4.41% of Table 1)</li></ul>		II (UMAL)	\$12,227,002 7,864,853
3. UAAL (B1-B2)			\$4,362,149
C. NORMAL COST			\$153,773

<sup>\*</sup> Includes MPRIF Reserves of \$5,013,072.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9Q)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$8,370,344 1,610,352 3,361,730
	4. Total	\$13,342,426
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$204,286 281,180
	3. Total	\$485,466
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$306,429 421,770
	3. Total	\$728,199
D.	CURRENT VALUE OF TOTAL ASSETS (4.41% of Table 1, F6)	\$7,864,853
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)  (Table 11Q, B.2.b + B.2.c + B.2.d + B.2.e)	\$6,136,193 (825,233)
	3. Total	\$5,310,960
F.	LOSS (GAIN) [A-B-C-D-E]	(\$1,047,052)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$117,539) 0 0 0 (929,513)
	4. Total	(\$1,047,052)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$121,047)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

#### JULY 1, 1992

				Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIB	UTIONS		8.00%	<b>\$66</b> ,660 *
В.	EMPLOYER CONTRIB (Before Adjustme		d)		
		cipal contribut unicipal contri		12.00%	<b>\$99</b> ,990 *
		<u>Established</u>	Current <u>Balance</u>	Last Payment	Payment Amount **
	a. b.	Initial 7/1/88	\$6,136,193 0	12/31/2010 12/31/2002	\$635,640 0
	С.	7/1/89	0	12/31/2003	0

(1,894,717)

1,069,484

(1,047,052)

\$4,263,908

=========

12/31/2004

12/31/2005

12/31/2006

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$572,913

(236,510)

128,180

(121,047)

\$406,263

---------

d.

e. f.

g.

7/1/90

7/1/91

7/1/92

Total

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

ST. LOUIS PARK FIRE CONSOLIDATION ACCOUNT

### ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u> 15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				ì	2				3
40-44 45-49					4 1	3			4 4
50-54 55-59				1		2	2		3 2
60-64 65+									
ALL				2	7	5	2		16
			AVE	RAGE ANN	IUAL EARN	IINGS			
				YEARS (	F SERVIC	E			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
<25 25-29									
30-34 35-39				45,156	46,349				45,951
				75,150	·				
40-44 45-49					45,749 41,344	45,328			45,749 44,332
50-54 55-59				46,671		45,263	48,706		45,732 48,706
60-64 65+									
ALL				45,914	45,291	45,302	48,706		45,799
	PRIOR	FISCAL	YEAR EA	RNINGS	(ACTUAL I	OOLLARS)	BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u>30+</u>	ALL
ALL				91,828	317,037	226,510	97,412		732,784

### MILLIMAN & ROBERTSON, INC.

ST. LOUIS PARK FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS RETIRED							
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64		2 1				1		2 2
65-69 70-74		1	1	1	2 1			5 1
75-79 80-84				1				1
85+								
ALL		4	1	2	3	1		11
			AVERAG	E ANNUAL	BENEFIT			
405				EARS RETI				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64		18,951 21,234				18,841		18,951 20,038
65-69 70-74		23,495	24,376	20,349	21,436 20,726			22,218 20,726
75-79 80-84				22,610				22,610
85+								
ALL		20,658	24,376	21,480	21,199	18,841		21,128
	TOT#	AL ANNUAL			OLLARS) B	Y YEARS RI	ETIRED	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL		82,632	24,376	42,960	63,597	18,841		232,408
				- 200 -				

MILLIMAN & ROBERTSON, INC.

ST. LOUIS PARK FIRE CONSOLIDATION ACCOUNT
SURVIVORS AS OF JUNE 30, 1992

ACE		1 /		S SINCE I 10-14		20.24	<u>25+</u>	ALL
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u> 23+</u>	ALL
<50 50-54						1		1
55-59 60-64			1 1					1 1
65-69 70-74		1	1		2			4
75-79 80-84					1		1	1 1
85+		1						1
ALL		2	3		3	1	1	10
			AVERAGE	ANNUAL I	BENEFIT			
				S SINCE I				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54						15,073		15,073
55-59 60-64			15,073 15,073					15,073 15,073
65-69 70-74		15,073	15,073		15,073			15,073
75-79 80-84					15,893		9,996	15,893 9,996
85+		15,073						15,073
ALL		15,073	15,073		15,346	15,073	9,996	14,647
	TOTAL		ENEFIT (AC	TUAL DOLI	LARS) BY	YEARS SIN	CE DEATH	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL		30,146	45,219		46,038	15,073	9,996	146,470

- 201 - MILLIMAN & ROBERTSON, INC.

# ST. LOUIS PARK FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54			1		1			1 1
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL			1		1			2
			AVERAGE	ANNUAL E	BENEFIT			
	<del> </del>			RS DISABI				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54			18,841		18,841			18,841 18,841
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL			18,841		18,841			18,841
			BENEFIT (	ACTUAL DO	DLLARS) BY	YEARS DIS		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL			18,841		18,841			37,682
			_	202 -				

- 202 - MILLIMAN & ROBERTSON, INC.

# ST. LOUIS PARK FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		8 - 4 - 1 - 1 - 1	Deferred	Other <u>Non-Vested</u>
		<u>Actives</u>	Retirement	MOII-A62 red
Α.	ON JUNE 30, 1991	16	0	0
В.	ADDITIONS	0	0	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	6 10		
Ε.	TOTAL ON JUNE 30, 1992	16	0	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	12	2	9
В.	ADDITIONS	0	0	1
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	0 0 0 0	0 (1) 0 0
D.	DATA ADJUSTMENTS	0	0	1
Ε.	TOTAL ON JUNE 30, 1992	11	2	10

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (4.69% of Table 1, F6)	\$8,355,876
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$660,185 990,277 1,991,752
	4. Total Expected Future Assets	\$3,642,214
C.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$11,998,090
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$6,636,795
	2. Current Employees	
	a. Accumulated Employee Contributions \$578,036 Including Allocated Investment Income* b. Employer-Financed Vested 2,416,119 c. Employer-Financed Nonvested 1,231,138	
	d. Total	\$4,225,293 
	3. Total Pension Benefit Obligation	\$10,862,088
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,136,002
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$11,998,090
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$2,506,212
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	1 15	\$315,642 5,045,653	\$258,768 3,259,646
c. Total	16	\$5,361,295	\$3,518,414
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 0	\$0 0	\$0 0
c. Total	0	\$0	\$0
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	5 18	\$1,054,094 5,582,701	\$1,054,094 5,582,701
c. Total	23	\$6,636,795	\$6,636,795
<ul><li>4. Total</li><li>a. Elected PERA Police and Fire*</li><li>b. Elected Relief Association</li><li>c. No Election (Greater Value)</li><li>d. Total</li></ul>	6 18 15 39	\$1,369,736 5,582,701 5,045,653  \$11,998,090	\$1,312,862 5,582,701 3,259,646  \$10,155,209
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI		
<ol> <li>AAL (A4)</li> <li>Current Assets (4.69% of Table 1,</li> </ol>		(	\$10,155,209 8,355,876
3. UAAL (B1-B2)			\$1,799,333
C. NORMAL COST			\$167,297

<sup>\*</sup> Includes MPRIF Reserves of \$1,054,094.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9R)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$1,369,736 5,582,701 5,045,653
	4. Total	\$11,998,090
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$23,950 636,235
	3. Total	\$660,185
С.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS 1. Elected PERA Police and Fire 2. No Election (Greater Value)	\$35,924 954,353
	3. Total	\$990,277
D.	CURRENT VALUE OF TOTAL ASSETS (4.69% of Table 1, F6)	\$8,355,876
Ε.	<pre>2. 15 year amortization of prior years' loss (gain)   (Table 11R, B.2.b + B.2.c + B.2.d + B.2.e)</pre>	\$3,146,310 (333,198)
	3. Total	\$2,813,112
F.	LOSS (GAIN) [A-B-C-D-E]	(\$821,360)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$96,996) 0 0 (724,364)
	4. Total	(\$821,360)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$94,955)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of <u>Payroll</u>	Dollar Amount
A.	EMPLOYEE CONTRIBUTIONS	8.00%	<b>\$62,433</b> *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$93,649 *

	<u>Established</u>	Current Balance	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$3,146,310	12/31/2010	\$325,922
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	(406,556)	12/31/2004	(50,749)
e.	7/1/91	73,358	12/31/2005	8,792
f.	7/1/92	(821,360)	12/31/2006	(94,955)
	<b>-</b>			
g.	Total	\$1,991,752		\$189,010
		=========		=======================================

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$345,092

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT

### ACTIVE MEMBERS AS OF JUNE 30, 1992

	YEARS OF SERVICE								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u> 25-29</u>	<u> 30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				1	4				5
40-44 45-49					7 1	1 8	2		8 11
50-54 55-59						3 1		3	3 4
60-64 65+									
ALL				1	12	13	2	3	31
			AVE	RAGE ANN	UAL EARN	INGS			
				YFARS O	F SERVIC	F			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	25-29	<u>30+</u>	ALL
<25 25-29									
30-34				44 250	45 000				44 004
35-39				44,358	45,066				44,924
40-44 45-49					47,174 45,760	55,242 48,496	49,283		48,183 48,390
50-54 55-59						47,387 51,129		50,580	47,387 50,717
60-64 65+									
ALL				44,358	46,354	48,962	49,283	50,580	47,980
	PRIO	R FISCAL	YEAR E	ARNINGS	(IN THOU	SANDS) B	Y YEARS	OF SERVI	CE
AGE	<u>&lt;1</u>	1-4	5-9	10-14	15-19	20-24	25-29	30+	ALL
ALL				44	556	636	98	151	1,487

 $\begin{array}{c} -208 \\ \textbf{MILLIMAN & ROBERTSON, INC.} \end{array}$ 

ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

YEARS RETIRED										
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54		1						1		
55-59 60-64		2 2	1 2	6	1 1			<b>4</b> 11		
65-69 70-74			1	1	6			7 1		
75-79 80-84						1		1		
85+										
ALL		5	4	7	8	1		25		
AVERAGE ANNUAL BENEFIT										
	·			EARS RET						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
<50 50-54		15,550						15,550		
55-59 60-64		22,556 27,409	20,548 22,769	18,903	19,993 19,993			21,413 21,252		
65-69 70-74			23,325	19,037	20,385			20,192 23,325		
75-79 80-84						19,437		19,437		
85+										
ALL		23,096	22,353	18,922	20,287	19,437		20,763		
		AL ANNUAL								
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
ALL	·	115,480	89,412	132,454	162,296	19,437		519,075		
			1411 T 17-44	- 209 -	DTCON IN	<b>~</b>				

MILLIMAN & ROBERTSON, INC.

ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
<50 50-54										
55-59 60-64					1	1	1	3		
65-69 70-74					1			1		
75-79 80-84							1	1		
85+				1				1		
ALL				1	2	1	2	6		
AVERAGE ANNUAL BENEFIT										
				S SINCE						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
<50 50-54										
55-59										
60-64					9,996	9,791	9,791	9,859		
65-69 70-74					10,989			10,989		
75-79 80-84							9,791	9,791		
85+				9,996				9,996		
ALL				9,996	10,493	9,791	9,791	10,059		
		ANNUAL BE				YEARS SIN		<del></del>		
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
ALL				9,996	20,986	9,791	19,582	60,354		
				010						

- 210 - MILLIMAN & ROBERTSON, INC.

# ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

			YEA	RS DISABI	.ED						
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54				1				1			
55-59 60-64											
65-69 70-74											
75-79 80-84											
85+											
ALL				1				1			
	AVERAGE ANNUAL BENEFIT										
				RS DISABL				· · · ·			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54				19,993				19,993			
55-59 60-64											
65-69 70-74											
75-79 80-84											
85+											
ALL				19,993				19,993			
<b>*</b> 0F	TOTAL	ANNUAL E	BENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	SABLED				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
ALL				19,993				19,993			
			-	211 -							

MILLIMAN & ROBERTSON, INC.

## ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
			Deferred	Other
		<u>Actives</u>	<u>Retirement</u>	Non-Vested
Α.	ON JUNE 30, 1991	30	0	0
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(1) 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	2	0	0
	Vested Non-Vested	31 0		
Ε.	TOTAL ON JUNE 30, 1992	31	0	0
			Recipients	
		Retirement Annuitants	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	25	1	6
В.	ADDITIONS	1	0	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	25	1	6

### ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

### JULY 1, 1992

Α.	CURRENT ASSETS (8.60% of Table 1, F6)	\$15,326,314
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$1,278,871 1,918,307 (832,406)
	4. Total Expected Future Assets	\$2,364,773
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$17,691,087
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$7,720,562
	2. Current Employees	
	a. Accumulated Employee Contributions \$1,176,990 Including Allocated Investment Income*	
	b. Employer-Financed Vested 5,229,596 c. Employer-Financed Nonvested 0	
	d. Total	\$6,406,586
	3. Total Pension Benefit Obligation	\$14,127,148
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$3,563,939
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$17,691,087
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	(\$1,199,167)
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

\*Estimated

\$275,367

### ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

### JULY 1, 1992

Α	DETERMINATION OF ACTUARIAL ACCRUED	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liabilit</u> y
	DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
	<ol> <li>Active Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	17 14	\$5,360,385 4,610,140	\$3,881,615 3,321,881
	c. Total	31	\$9,970,525	\$7,203,496
	<ol> <li>Former Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	0 0	\$0 0	\$0 0
•	c. Total	0	\$0	\$0
	<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	26 6	\$6,529,200 1,191,362	\$6,529,200 1,191,362
	c. Total	32	\$7,720,562	\$7,720,562
	<ol> <li>Total</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ol>	43 6 14	\$11,889,585 1,191,362 4,610,140	\$10,410,815 1,191,362 3,321,881
	d. Total	63	\$17,691,087	\$14,924,058
В.	DETERMINATION OF UNFUNDED ACTUARIAL			
	l. AAL (A4) 2. Current Assets (8.60% of Table 1,	.F6)		\$14,924,058 15,326,314
	3. UAAL (B1-B2)			(\$402,257)
				3442222222

<sup>\*</sup> Includes MPRIF Reserves of \$6,234,608.

C. NORMAL COST

### ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9S)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$11,889,585 1,191,362 4,610,140
	4. Total	\$17,691,087
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$682,905 595,966
	3. Total	\$1,278,871
C.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$1,024,358 893,949
	3. Total	\$1,918,307
D.	CURRENT VALUE OF TOTAL ASSETS (8.60% of Table 1, F6)	\$15,326,314
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11S, B.2.b + B.2.c + B.2.d + B.2.e)	\$3,849,167 (2,991,457)
	3. Total	\$857,710
F.	LOSS (GAIN) [A-B-C-D-E]	(\$1,690,116)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$597,709) (40,738) 0 (1,051,669)
	4. Total	(\$1,690,116)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$195,390)

### ST. LOUIS PARK POLICE CONSOLIDATION ACCOUNT

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$126,725 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$190,088 *

	<u>Established</u>	Current Balance	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$3,849,167	12/31/2010	\$398,730
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	(2,991,457)	12/31/2005	(358,534)
f.	7/1/92	(1,690,116)	12/31/2006	(195,390)
g.	Total	(\$832,406)		(\$155,194)
		*****		=========

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$161,619

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

WEST ST. PAUL FIRE CONSOLIDATION ACCOUNT

### ACTIVE MEMBERS AS OF JUNE 30, 1992

					F SERVICE				<del></del>	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	ALL	
<25 25-29										
30-34 35-39				1					1	
40-44 45-49				1	2 2		2		2 5	
50-54 55-59							3		3	
60-64 65+										
ALL				2	4		5		11	
	AVERAGE ANNUAL EARNINGS									
					F SERVICE	Ε				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
<25 25-29										
30-34 35-39				39,701					39,701	
40-44 45-49				39,968	43,669 46,283		49,416		43,669 46,273	
50-54 55-59							44,291		44,291	
60-64 65+										
ALL				39,835	44,976		46,341		44,661	
				RNINGS (	ACTUAL D	DLLARS)	BY YEARS	OF SERV	ICE	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>	
ALL				79,670	179,904		231,705		491,271	

MILLIMAN & ROBERTSON, INC.

WEST ST. PAUL FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

	YEARS RETIRED										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>			
<50 50-54											
55-59 60-64		1	1 1					2 1			
65-69 70-74				1 3				1 3			
75-79 80-84											
85+											
ALL		1	2	4				7			
	AVERAGE ANNUAL BENEFIT										
	<u>-</u>			ARS RETI							
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL			
<50 50-54											
55-59 60-64		25,746	15,954 19,942					20,850 19,942			
65-69 70-74				17,151 18,081				17,151 18,081			
75-79 80-84											
85+											
ALL		25,746	17,948	17,849				19,005			
		AL ANNUAL	BENEFIT (	ACTUAL D	OLLARS) BY	YEARS RE	TIRED				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL			
ALL		25,746	35,896	71,396				133,035			
				010							

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## WEST ST. PAUL FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

YEARS SINCE DEATH										
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54										
55-59 60-64					1			1		
65-69 70-74			3					3		
75-79 80-84										
85+										
ALL			3		1			4		
AVERAGE ANNUAL BENEFIT										
ACE		1.4		S SINCE		00.04	<u> </u>			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
<50 50-54										
55-59 60-64					10,969			10,969		
65-69 70-74			11,965					11,965		
75-79 80-84										
85+										
ALL			11,965		10,969			11,716		
ACE	TOTAL	ANNUAL BE	NEFIT (AC	TUAL DOL	LARS) BY	YEARS SINC 20-24	E DEATH			
<u>AGE</u>	77	<u>1 - 4</u>		<u>10-14</u>		20-24	<u> 25+</u>	ALL		
ALL			35,895		10,969			46,864		

- 219 - **MILLIMAN & ROBERTSON, INC.** 

# WEST ST. PAUL FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

YEARS DISABLED										
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54			1					1		
55-59 60-64										
65-69 70-74										
75-79 80-84										
85+										
ALL			2					2		
	AVERAGE ANNUAL BENEFIT									
	. •			RS DISABL		00.04	05			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
<50 50-54			14,625 14,625					14,625 14,625		
55-59 60-64										
65-69 70-74										
75-79 80-84										
85+										
ALL			14,625					14,625		
		ANNUAL	BENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	ABLED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
ALL			29,250					29,250		

- 220 - MILLIMAN & ROBERTSON, INC.

## WEST ST. PAUL FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		A - 4 - 2 - 2 - 2	Deferred	Other
		<u>Actives</u>	Retirement	Non-Vested
Α.	ON JUNE 30, 1991	12	0	0
В.	ADDITIONS	0	1	0
С.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	0 0 0 0 (1) 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	9 2		
Ε.	TOTAL ON JUNE 30, 1992	11	1	0
		Retirement	Recipients	
		Annuitants	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	7	2	4
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 0 0 0	0 0 0 0	0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	7	2	4

### ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (3.19% of Table 1, F6)	<b>\$5,679,6</b> 71
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$396,316 594,473 (248,053)
	4. Total Expected Future Assets	\$742,737
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$6,422,408
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$3,132,936
	2. Current Employees	
	a. Accumulated Employee Contributions \$404,008 Including Allocated Investment Income* b. Employer-Financed Vested 1,742,600 c. Employer-Financed Nonvested 262,016 d. Total	\$2,408,624
	3. Total Pension Benefit Obligation	\$5,541,560
E.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$880,848
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$6,422,408
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	(\$138,112)
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	9 2	\$2,755,082 534,390	\$2,033,800 339,059
c. Total	11	\$3,289,472	\$2,372,859
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 1	\$0 222,606	\$0 222,606
c. Total	1	\$222,606	\$222,606
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	10 3	\$1,995,119 915,211	\$1,995,119 915,211
c. Total	13	\$2,910,330	\$2,910,330
4. Total a. Elected PERA Police and Fire* b. Elected Relief Association c. No Election (Greater Value) d. Total	19 3 3 	\$4,750,201 915,211 756,996  \$6,422,408	\$4,028,919 915,211 561,665  \$5,505,795
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (3.19% of Table 1</li> </ol>	,F6)		\$5,505,795 5,679,671
3. UAAL (B1-B2)			(\$173,877)
C. NORMAL COST			\$97,351

<sup>\*</sup> Includes MPRIF Reserves of \$1,995,119.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9T)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$4,750,201 915,211 756,996
	4. Total	\$6,422,408
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$333,192 63,124
	3. Total	\$396,316
C.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$499,787 94,686
	3. Total	<b>\$594,47</b> 3
D.	CURRENT VALUE OF TOTAL ASSETS (3.19% of Table 1, F6)	\$5,679,671
Ε.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$1,474,022 (1,128,155)
	(Table 11T, B.2.b + B.2.c + B.2.d + B.2.e) 3. Total	\$345,867
F.	LOSS (GAIN) [A-B-C-D-E]	(\$593,920)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	\$42,706 0 0 (636,626)
	4. Total	(\$593,920)
Н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$68,661)

## DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

### JULY 1, 1992

		Percent of Payroll	Dollar <u>Amount</u>
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$41,856 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$62,784 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$1,474,022	12/31/2010	\$152,692
b.	7/1/88	Ü	12/31/2002	0
С.	7/1/89	(918,084)	12/31/2003	(120,004)
d.	7/1/90	(151,290)	12/31/2004	(18,885)
e.	7/1/91	(58,781)	12/31/2005	(7,045)
f.	7/1/92	(593,920)	12/31/2006	(68,661)
g.	Total	(\$248,053)		(\$61,903)
		=========		=======================================

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$42,737

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

					F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				3	1				4
40-44 45-49				2	2	3			4 3
50-54 55-59							1 3	1	1 4
60-64 65+							2	4	6
ALL				5	3	3	6	5	22
			AVE	RAGE ANN	IUAL EARN	IINGS			
					F SERVIC				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39				35,306	35,878				35,449
40-44 45-49				37,601	35,693	38,719			36,647 38,719
50-54 55-59							38,507 35,105	38,785	38,507 36,025
60-64 65+							36,371	38,737	37,948
ALL				36,224	35,755	38,719	36,094	38,747	37,038
	PRIOR	FISCAL Y	EAR E	ARNINGS (	(ACTUAL D		BY YEARS	OF SERV	ICE
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>		<u>25-29</u>	<u>30+</u>	<u>ALL</u>
ALL				181,120	107,265	116,157	216,564	193,735	814,836

## MILLIMAN & ROBERTSON, INC.

# WINONA FIRE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			Y	EARS RETI	RED			
AGE	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64	1 1	1	1	3				2 5
65-69 70-74		1	1	2 4	3			7 4
75-79 80-84				1	1	1 1		2 2
85+								
ALL	2	2	2	10	4	2		22
			AVERAG	E ANNUAL	BENEFIT			
<u>AGE</u>	<1	1-4	<u> 7</u> <u>5-9</u>	EARS RETI 10-14	RED 15-19	20-24	<u>25+</u>	ALL
<50 50-54	<del></del>	<u></u>	3	<u></u>				
55-59 60-64	20,637 23,668	24,670	20,140	16,980				20,389 19,856
65-69 70-74		17,847	20,024	17,832 17,478	16,056			17,386 17,478
75-79 80-84				19,116	17,840	16,502 16,502		17,809 17,171
85+								
ALL	22,153	21,259	20,082	17,563	16,502	16,502		18,256
					OLLARS) B			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	44,306	42,518	40,164	175,630	66,008	33,004		401,632

- 227 - MILLIMAN & ROBERTSON, INC.

## WINONA FIRE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

	YEARS SINCE DEATH									
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL		
<50 50-54		1		2				3 1		
55-59 60-64		1		1				1		
65-69 70-74			1			2	1	3 2		
75-79 80-84		1			1	1	1	2 3		
85+					1		1	2		
ALL		3	2	4	2	4	3	18		
			AVERAGI	E ANNUAL	BENEFIT					
				RS SINCE						
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL		
<50 50-54		7,558		10,704 8,028				9,655 8,028		
55-59 60-64		7,623		8,028				7,623 8,028		
65-69 70-74			8,028 10,070			8,026	8,028	8,027 9,049		
75-79 80-84		8,028			8,028	8,028 8,028	8,024	8,028 8,027		
85+					8,028		8,024	8,026		
ALL		7,736	9,049	9,366	8,028	8,027	8,025	8,390		
	TOTAL	ANNUAL BI		CTUAL DOL		YEARS SIN	CE DEATH			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>		
ALL		23,208	18,098	37,464	16,056	32,108	24,075	151,020		

- 228 - MILLIMAN & ROBERTSON, INC.

# WINONA FIRE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

			YEA	RS DISABL	.ED			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54		1	1					1
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		1	1					2
			AVERAGE	E ANNUAL E	BENEFIT			
	<del></del>			RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
<50 50-54		17,902	17,902					17,902 17,902
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL		17,902	17,902					17,902
ACE			BENEFIT (	ACTUAL DO	LLARS) BY	YEARS DIS	ABLED	All
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
ALL	•	17,902	17,902					35,804

- 229 - **MILLIMAN & ROBERTSON, INC.** 

# WINONA FIRE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		8 - 4	Deferred	Other
		<u>Actives</u>	Retirement	Non-Vested
Α.	ON JUNE 30, 1991	25	0	0
В.	ADDITIONS	0	1	0
С.	DELETIONS  1. Service Retirement  2. Disability  3. Death-Survivor  4. Death-Other  5. Terminated - Deferred  6. Terminated - Refund  7. Terminated - Other Non-Vested  8. Returned as Active	(2) 0 0 0 (1) 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	20 2		
Ε.	TOTAL ON JUNE 30, 1992	22	1	0
			Recipients	
		Retirement Annuitants	Disabled	Survivors
Α.	ON JUNE 30, 1991	21	2	18
В.	ADDITIONS	2	0	1
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (1) 0 0	0 0 0 0	0 (1) 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	22	2	18

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

Α.	CURRENT ASSETS (4.58% of Table 1, F6)	\$8,167,664
В.	EXPECTED FUTURE ASSETS	
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$511,883 767,824 3,343,544
	4. Total Expected Future Assets	\$4,623,251
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$12,790,915
D.	CURRENT PENSION BENEFIT OBLIGATIONS	
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$7,012,655
	2. Current Employees	
	a. Accumulated Employee Contributions \$676,936 Including Allocated Investment Income*	
	b. Employer-Financed Vested 3,670,067 c. Employer-Financed Nonvested 175,480	
	d. Total	\$4,522,483
	3. Total Pension Benefit Obligation	\$11,535,138
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,255,777
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$12,790,915
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A)	\$3,367,474
н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0

### ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected <u>Benefits</u>	Actuarial Accrued <u>Liability</u>
<ol> <li>Active Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	18 4	\$4,745,414 1,032,846	\$3,954,110 700,069
c. Total	22	\$5,778,260	\$4,654,179
<ol> <li>Former Members         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ul> </li> </ol>	0 1	\$0 169,983	\$0 169,983
c. Total	1	\$169,983	\$169,983
<ol> <li>Benefit Recipients         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. Elected Relief Association</li> </ul> </li> </ol>	* 38 4	\$5,567,073 1,275,599	\$5,567,073 1,275,599
c. Total	42	\$6,842,672	\$6,842,672
<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fire</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> </ol>	4 5	\$10,312,487 1,275,599 1,202,829	\$9,521,183 1,275,599 870,052
d. Total	65 ===== <b>==</b> ==	\$12,790,915	\$11,666,834 =========
B. DETERMINATION OF UNFUNDED ACTUARIA	AL ACCRUED LIABILI	ITY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (4.58% of Table</li> </ol>	1,F6)		\$11,666,834 8,167,664
3. UAAL (B1-B2)			\$3,499,170
C. NORMAL COST			\$151,193

<sup>\*</sup> Includes MPRIF Reserves of \$4,877,617.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9U)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$10,312,487 1,275,599 1,202,829
4. Total	\$12,790,915
PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$365,218 146,665
3. Total	\$511,883
PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$547,827 219,997
3. Total	\$767,824
CURRENT VALUE OF TOTAL ASSETS (4.58% of Table 1, F6)	\$8,167,664
PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain)	\$6,756,482 (2,659,883)
3. Total	\$4,096,599
LOSS (GAIN) [A-B-C-D-E]	(\$753,056)
ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$31,156) 0 0 0 (721,900)
4. Total	(\$753,056)
15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$87,059)
	1. Elected PERA Police and Fire 2. Elected Relief Association 3. No Election (Greater Value) 4. Total  PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS 1. Elected PERA Police and Fire 2. No Election (Greater Value) 3. Total  PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS 1. Elected PERA Police and Fire 2. No Election (Greater Value) 3. Total  CURRENT VALUE OF TOTAL ASSETS (4.58% of Table 1, F6)  PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS 1. Initial contribution - Amortized Through December 31, 2010 2. 15 year amortization of prior years' loss (gain)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$69,423 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)		
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$104,135 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment Amount **
a.	Initial	\$6,756,482	12/31/2010	\$699,895
b.	7/1/88	0	12/31/2002	0
С.	7/1/89	0	12/31/2003	0
d.	7/1/90	(3,711,576)	12/31/2004	(463,301)
e.	7/1/91	1,051,693	12/31/2005	126,048
f.	7/1/92	(753,056)	12/31/2006	(87,059)
g.	Total	\$3,343,544		\$275,583
		=======================================		=========

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$449,141

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.

### ACTIVE MEMBERS AS OF JUNE 30, 1992

YEARS OF SERVICE									
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39					1				1
40-44 45-49				1	5	1 3	1		6 5
50-54 55-59						2	3	2	5 2
60-64 65+								1	1
ALL				1	6	6	4	3	20
			AVE	RAGE ANN	IUAL EARN	IINGS			
				YEARS (	F SERVIC	Ε			
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25-29</u>	<u> 30+</u>	<u>ALL</u>
<25 25-29									
30-34 35-39					42,575				42,575
40-44 45-49				41,070	41,136	36,859 38,366	48,182		40,423 40,870
50-54 55-59						43,711	36,179	39,197	39,192 39,197
60-64 65+								40,238	40,238
ALL				41,070	41,376	39,897	39,180	39,544	40,202
	PRIOR	FISCAL Y	EAR EA	RNINGS	(ACTUAL I	OLLARS)	BY YEARS	OF SERV	
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>		20-24		<u>30+</u>	ALL
ALL				41,070	248,256	239,382	156,720	118,632	804,040

MILLIMAN & ROBERTSON, INC.

# WINONA POLICE CONSOLIDATION ACCOUNT SERVICE RETIREMENTS AS OF JUNE 30, 1992

			Υ!	EARS RETI				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54	1	1						2
55-59 60-64			3	1 3				1 6
65-69 70-74			2	1	2			2 3
75-79 80-84				1		1 2	3 2	5 4
85+						1		1
ALL	1	1	5	6	2	4	5	24
			AVERAG	E ANNUAL	BENEFIT			
			Υ	EARS RETI	RED			
<u>AGE</u>	<1	<u>1-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54	17,075	16,581						16,828
55-59 60-64			18,020	15,639 16,830				15,639 17,425
65-69 70-74			19,843	19,440	18,543			19,843 18,842
75-79 80-84				19,293		16,980 18,765	16,234 18,091	16,995 18,428
85+						16,980		16,980
ALL	17,075	16,581	18,749	17,477	18,543	17,873	16,977	17,739
					OLLARS) B			
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	17,075	16,581	93,745	104,862	37,086	71,492	84,885	425,736

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# WINONA POLICE CONSOLIDATION ACCOUNT SURVIVORS AS OF JUNE 30, 1992

				S SINCE [				
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74			1					1
75-79 80-84			1				1	1 1
85+							1	1
ALL			2				2	4
				ANNUAL I				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>YEAR</u> <u>5-9</u>	S SINCE I 10-14	<u>15-19</u>	20-24	<u>25+</u>	ALL
<50 50-54								
55-59 60-64								
65-69 70-74			8,043					8,043
75-79 80-84			8,043				8,043	8,043 8,043
85+							7,709	7,709
ALL			8,043				7,876	7,960
ACE		ANNUAL BEI	NEFIT (AC	TUAL DOL	LARS) BY 1 15-19	YEARS SING 20-24	E DEATH	ALL
<u>age</u> all	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u> 16,086	<u>10-14</u>	12-13	<u> 20-24</u>	25+ 15,752	31,840
ALL			10,000				10,700	51,510

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# WINONA POLICE CONSOLIDATION ACCOUNT DISABILITY RETIREMENTS AS OF JUNE 30, 1992

				RS DISABL				
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25+</u>	<u>ALL</u>
<50 50-54	1							1
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL	1							1
			AVERAGE	ANNUAL E	BENEFIT			
ACE		1-4	YEA <u>5-9</u>	RS DISABL 10-14	.ED 15-19	20-24	<u>25+</u>	ALL
<u>AGE</u>	<u>&lt;1</u>	1-4	<u>5-5</u>	10-14	13-13	20-24	<u>25†</u>	<u> </u>
<50 50-54	21,999							21,999
55-59 60-64								
65-69 70-74								
75-79 80-84								
85+								
ALL	21,999							21,999
			BENEFIT (	ACTUAL DO	DLLARS) BY	YEARS DI	SABLED	
<u>AGE</u>	<u>&lt;1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	ALL
ALL	21,999							21,999

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## WINONA POLICE CONSOLIDATION ACCOUNT RECONCILIATION OF MEMBERS

			Term	inated
		A-+	Deferred	Other
		<u>Actives</u>	Retirement	Non-Vested
Α.	ON JUNE 30, 1991	22	1	0
В.	ADDITIONS	0	0	0
C.	DELETIONS 1. Service Retirement 2. Disability 3. Death-Survivor 4. Death-Other 5. Terminated - Deferred 6. Terminated - Refund 7. Terminated - Other Non-Vested 8. Returned as Active	(1) (1) 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
	Vested Non-Vested	16 4		
E.	TOTAL ON JUNE 30, 1992	20	1	0
		Retirement	Recipients	
		<u>Annuitants</u>	<u>Disabled</u>	Survivors
Α.	ON JUNE 30, 1991	25	0	4
В.	ADDITIONS	1	1	0
С.	DELETIONS 1. Service Retirement 2. Death 3. Annuity Expired 4. Returned as Active	0 (2) 0 0	0 0 0 0	0 0 0 0
D.	DATA ADJUSTMENTS	0	0	0
Ε.	TOTAL ON JUNE 30, 1992	24	1	4

## ACTUARIAL BALANCE SHEET (ACTUAL DOLLARS)

### JULY 1, 1992

Α.	CURRENT ASSETS (3.73% of Table 1, F6)	\$6,653,243				
В.	EXPECTED FUTURE ASSETS					
	<ol> <li>Present Value of Employee Contributions</li> <li>Present Value of Regular Municipal Contributions</li> <li>Present Value of Additional Municipal Contributions</li> </ol>	\$568,075 852,113 2,426,989				
	4. Total Expected Future Assets	\$3,847,177				
С.	TOTAL CURRENT AND EXPECTED FUTURE ASSETS	\$10,500,420				
D.	CURRENT PENSION BENEFIT OBLIGATIONS					
	<ol> <li>Retirees and Beneficiaries Currently Receiving Benefits and Terminated Employees Not Yet Receiving Benefits</li> </ol>	\$4,755,981				
	2. Current Employees					
	a. Accumulated Employee Contributions \$633,070 Including Allocated Investment Income*					
	b. Employer-Financed Vested 3,388,085					
	<ul><li>c. Employer-Financed Nonvested 469,357</li><li>d. Total</li></ul>	\$4,490,512				
	3. Total Pension Benefit Obligation	\$9,246,493				
Ε.	EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$1,253,927				
F.	TOTAL CURRENT AND EXPECTED FUTURE PENSION BENEFIT OBLIGATION	\$10,500,420				
G.	CURRENT UNFUNDED ACTUARIAL LIABILITY (D3-A) \$2,593,250					
Н.	CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)	\$0				

\*Estimated

## ENTRY AGE NORMAL COST CALCULATIONS (ACTUAL DOLLARS)

A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)	Number of <u>Participants</u>	Present Value of Projected Benefits	Actuarial Accrued Liability
<ol> <li>Active Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	10 10	\$2,862,185 2,882,254	\$2,236,820 2,175,001
c. Total	20	\$5,744,439	\$4,411,821
<ol> <li>Former Members</li> <li>a. Elected PERA Police and Fire</li> <li>b. No Election (Greater Value)</li> </ol>	0 1	\$0 94,326	\$0 94,326
c. Total	1	\$94,326	\$94,326
<ol> <li>Benefit Recipients</li> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> </ol>	28	\$4,626,691 34,964	\$4,626,691 34,964
c. Total	29	\$4,661,655	\$4,661,655
<ol> <li>Total         <ul> <li>a. Elected PERA Police and Fire*</li> <li>b. Elected Relief Association</li> <li>c. No Election (Greater Value)</li> </ul> </li> </ol>	38 1 11	\$7,488,876 34,964 2,976,580	\$6,863,511 34,964 2,269,327
d. Total	50	\$10,500,420	\$9,167,802
B. DETERMINATION OF UNFUNDED ACTUARIAL	ACCRUED LIABILI	TY (UAAL)	
<ol> <li>AAL (A4)</li> <li>Current Assets (3.73% of Table 1</li> </ol>	,F6)		\$9,167,802 6,653,243
3. UAAL (B1-B2)			\$2,514,559
C. NORMAL COST			\$159,494

<sup>\*</sup> Includes MPRIF Reserves of \$4,370,060.

## NET ACTUARIAL LOSS (GAIN) (ACTUAL DOLLARS)

Α.	ACTUARIAL PRESENT VALUE OF PROJECTED BENEFITS (Table 9V)  1. Elected PERA Police and Fire  2. Elected Relief Association  3. No Election (Greater Value)	\$7,488,876 34,964 2,976,580
	4. Total	\$10,500,420
В.	PRESENT VALUE OF FUTURE EMPLOYEE CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$280,335 287,740
	3. Total	\$568,075
C.	PRESENT VALUE OF FUTURE REGULAR MUNICIPAL CONTRIBUTIONS  1. Elected PERA Police and Fire  2. No Election (Greater Value)	\$420,503 431,610
	3. Total	\$852,113
D.	CURRENT VALUE OF TOTAL ASSETS (3.73% of Table 1, F6)	\$6,653,243
E.	PRESENT VALUE OF FUTURE ADDITIONAL MUNICIPAL CONTRIBUTIONS  1. Initial contribution - Amortized Through December 31, 2010  2. 15 year amortization of prior years' loss (gain) (Table 11V, B.2.b + B.2.c + B.2.d + B.2.e)	\$5,093,009 (2,101,095)
	3. Total	\$2,991,914
F.	LOSS (GAIN) [A-B-C-D-E]	(\$564,925)
G.	ANALYSIS OF LOSS (GAIN) 1. MPRIF Mortality 2. PERA Benefit Election 3. Additional Contributions Made 4. Other	(\$464,541) 0 0 (100,384)
	4. Total	(\$564,925)
н.	15 YEAR AMORTIZATION OF LOSS (GAIN)	(\$65,309)

### DETERMINATION OF STATUTORY CONTRIBUTIONS (ACTUAL DOLLARS)

JULY 1, 1992

		Percent of Payroll	Dollar Amount
Α.	EMPLOYEE CONTRIBUTIONS	8.00%	\$68,504 *
В.	EMPLOYER CONTRIBUTIONS (Before Adjustment For State Aid)	ate Aid)	
	<ol> <li>Regular municipal contribution</li> <li>Additional municipal contribution</li> </ol>	12.00%	\$102,756 *

	<u>Established</u>	Current <u>Balance</u>	Last <u>Payment</u>	Payment <u>Amount **</u>
a.	Initial	\$5,093,009	12/31/2010	\$527,578
b.	7/1/88	0	12/31/2002	0
c.	7/1/89	0	12/31/2003	0
d.	7/1/90	0	12/31/2004	0
e.	7/1/91	(2,101,095)	12/31/2005	(251,822)
f.	7/1/92	(564,925)	12/31/2006	(65,309)
g.	Total	\$2,426,989		\$210,447
э.	10041	=========		==========

### C. ESTIMATED TOTAL STATUTORY CONTRIBUTION

\$381,707

<sup>\*</sup> Estimated based on prior years' payroll.

<sup>\*\*</sup> Contribution is assumed to be paid on December 31, 1991.