## CITY OF OMAHA POLICE AND FIREFIGHTERS RETIREMENT SYSTEM

Actuarial Valuation Report as of January 1, 2008

--Revised--

#### CITY OF OMAHA POLICE & FIREFIGHTERS RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT

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milliman.com

August 19, 2008

Board of Trustees City of Omaha Police & Firefighters Retirement System Omaha/Douglas Civic Center 1819 Farnam Street Omaha, NE 68183

#### Re: January 1, 2008 Actuarial Report

Dear Members of the Board:

At your request, we have performed an annual actuarial valuation of the City of Omaha Police and Firefighters Retirement System as of January 1, 2008 for determining contributions for the year ended December 31, 2008. The major findings of the valuation are contained in this report. This report reflects the benefit provisions included in the Police and Fire Union contracts that expired December 31, 2007.

In preparing this report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, member data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

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 generally recognized and accepted principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board (ASB) and the applicable Guides to Professional Conduct, amplifying Opinions and Supporting Recommendations of American Academy of Actuaries.

We further certify that all costs, liabilities, rates of interest and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations of



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future experience); and which, in combination, offer our best estimate of anticipated experience under the Plan. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix B.

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. Actuarial computations under GASB Statement No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statements No. 25 and 27. Determinations for purposes other than these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work product was prepared exclusively for the City of Omaha Police and Firefighters Retirement System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the Police and Firefighters Retirement System operations, and used data from the Police and Firefighters Retirement System, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage professionals for advice appropriate to its own specific needs.

We herewith submit the following report and look forward to discussing it with you.

Respectfully Submitted,

MILLIMAN, Inc.

I, Gregg Rueschhoff, A.S.A. am a member of the American Academy of Actuaries and an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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Gregg Rueschhoff, A.S.A. Principal & Consulting Actuary

This report presents the results of the January 1, 2008 actuarial valuation of the City of Omaha Police & Firefighters Retirement System (the "System"). The primary purposes of performing the valuation are to:

- Determine the employer contribution rates required to fund the System on an actuarially sound basis,
- Disclose asset and liability measures as of January 1, 2008,
- Analyze and report on trends in System contributions, assets, and liabilities over the latest period.

The valuation results provide a "snapshot" view of the System's financial condition on January 1, 2008 using System asset values at December 31, 2007. The valuation results reflect an increase in the Unfunded Actuarial Liability and related Actuarial Contribution Rate. (Throughout this report we refer to the actuarially determined contribution rate as the Actuarial Contribution Rate). The main reasons for the increase include a net actuarial loss reflected for the 2007 calendar year and the fact that actual contributions in the prior year were less than the actuarially recommended rate. Each component of change in the Actuarial Contribution Rate is identified later in this Board Summary (see page 3).

Several factors contributed to the change in the System's assets, liabilities and recommended contribution rate between January 1, 2007 and December 31, 2007.

#### Assets

The market value of assets is not used directly in the actuarial calculation of the Plan's funded status and the recommended contribution. An asset valuation method is used to smooth the effects of market fluctuations. The actuarial value of assets is equal to 2/3 of the expected asset value (based on last year's actuarial value of assets, net cash flows and a rate of return equal to the actuarial assumed rate of 8.0%) plus 1/3 of the market value of assets. See page 7 for the detailed development of the actuarial value of assets as of January 1, 2008.

As of January 1, 2008, the System had total funds, when measured on an actuarial value basis, of \$530.5 million. This was an increase of \$35.7 million from the January 1, 2007 figure of \$494.8 million. Based on the actuarial assumption, an increase of \$36.0 million was expected over that time period.

The components of the change in the actuarial value of assets (in millions) are set forth below:

|   | Actuarial Value          | Market Value              |
|---|--------------------------|---------------------------|
| Assets, January 1, 2007   | \$ 494.8                 | \$ 507.6                  |
| • employer and member contributions                                 | + 37.0                   | + 37.0                    |
| benefit payments  | - 40.4                   | - 40.4                    |
| • net investment income (expected)                                  | + 39.4                   | + 40.4                    |
| • net investment actuarial gain/(loss)<br>Assets, December 31, 2007 | <u>- 0.3</u><br>\$ 530.5 | <u>- 14.7</u><br>\$ 529.9 |



#### Liabilities

The actuarial liability (also referred to as past service liability) is the portion of the present value of projected benefits that will not be paid by future employer normal costs. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial liability. The unfunded actuarial liability will be reduced if the contributions exceed the normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial liability. Benefit improvements, actuarial gains and losses, and changes in actuarial assumptions and procedures will also impact the total actuarial liability and the unfunded portion thereof.

The calculation of the Unfunded Actuarial Liability as of January 1, 2008 is shown below:

| Actuarial Liability                                  | \$ 898,199,279          |
|--|-------------------------|
| Actuarial Value of Assets                            | \$(530,496,413)         |
| Unfunded Actuarial Liability (UAL)                   | \$ 367,702,866          |
| Present Value of Prior Service Payments <sup>1</sup> | \$ ( <u>13,522,254)</u> |
| UAL for Funding Purposes                             | \$ 354,180,612          |

<sup>1</sup>The City is obligated to pay \$1,327,600 per year to the System to fund a "prior service" obligation. These payments will be paid through 2028.

Between January 1, 2007 and January 1, 2008 the change in the unfunded actuarial liabilities for the System as a whole was as follows (in millions):

|  | <u>\$millions</u> |
|--|-------------------|
| Unfunded Actuarial Liability, January 1, 2007  | \$ 320.6          |
|  | 12.0              |
| • effect of contribution shortfall in 2007     | 12.8              |
| • expected increase due to amortization method | 5.1               |
| loss from investment return                    | 0.3               |
| demographic experience-salary increases        | 7.0               |
| demographic experience-retirements             | 10.0              |
| • all other experience                         | (1.6)             |
| • change in actuarial assumptions              | 0                 |
| change in benefit provisions                   | 0                 |
| Unfunded Actuarial Liability, January 1, 2008  | \$354.2           |

As detailed above, the UAL increased \$33.6 million from the prior year. A significant portion of this increase is due to a \$17.2 million actuarial loss due to unfavorable demographic experience during 2007.



Approximately \$7 million of the \$17.2 million loss is attributed to a larger than expected increase in pensionable earnings from 2006 to 2007 for continuing active members. Pensionable earnings for 2007 were approximately 3.5% higher than expected.

About \$10 million of the \$17.2 million loss is attributable to retirements that occurred in 2007. For the 2007 retirements, the highest pensionable wage used to determine the pension amount was on average 12.1% higher than the previous highest calendar year pensionable wage and 33.9% higher than the second prior calendar year pensionable wages. The number of retirements was significantly higher than expected. This factor together with the excess adjustment over the 10% assumed final wage adjustment resulted in the \$10 million loss.

An evaluation of the unfunded actuarial liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial liability. The change to the Entry Age Normal actuarial cost method in the 2003 valuation and the change in actuarial assumptions in the 2006 valuation both resulted in an increase in the UAL and a decrease in the funded status. The funded status information is shown below (in millions).

|                    | 1/1/03  | 1/1/05  | 1/1/06  | 1/1/07  | 1/1/08  |
|--------------------|---------|---------|---------|---------|---------|
| Funded Ratio       | 66.1%   | 65.7%   | 61.9%   | 60.7%   | 60.0%   |
| Unfunded Actuarial |         |         |         |         |         |
| Liability (UAL)    | \$192.3 | \$220.5 | \$279.3 | \$320.6 | \$354.2 |

### Contributions

Under the Entry Age Normal Actuarial Cost method, contributions to the System consist of:

- a "normal cost" for the portion of projected liabilities attributable to service of members during the year following the valuation date, and
- an "unfunded actuarial liability" contribution for the excess of the portion of projected liabilities allocated to service to date over actuarial assets.

The System's total Actuarial Contribution Rate (payable as a percent of member payroll) increased by **3.27%** of pay, to **53.20%** on January 1, 2008, from **49.93**% on January 1, 2007. The primary components of this change are as follows:

|  | Rate   |
|--|--------|
| Total Actuarial Contribution Rate, January 1, 2007 | 49.93% |
| • Actuarial (Gain)/Loss – Investment Experience    | 0.00   |
| • Actuarial (Gain)/Loss – Demographic Experience   | 2.44   |
| Assumption Changes                                 | 0.00   |
| Contributing less than Actuarial Contribution Rate | 0.83   |
| Total Actuarial Contribution Rate, January 1, 2008 | 53.20% |

See page 9 for a detailed calculation of the Actuarial Contribution Rate as of January 1, 2008.



#### Observations

The actual contributions made to the System continue to be significantly less than the Actuarial Contribution Rate. The City's contribution rate is 20.47% of pensionable payroll plus a past service payment of approximately 1.40% of payroll. The member contribution rate is 14.88% of payroll. Even with a total contribution rate of 36.75%, the actual contribution to the System will be 16.45% less than the Actuarial Contribution Rate developed in this valuation. Over the last several years, we discussed the importance of closing this contribution shortfall. If all actuarial assumptions are met and the current benefit structure and contribution rates remain unchanged, we expect the System's funded status in future years will decline significantly and the Actuarial Contribution Rate will systematically increase. The table on the bottom of page 5 illustrates the growth in the contribution shortfall over the last three years.

The shortfall between the actual contribution rate (city and member) and the Actuarial Contribution Rate results in an increase in the Unfunded Actuarial Liability and a corresponding increase in the Actuarial Contribution Rate. Under the current schedule of contribution rates, the shortfall is expected to increase in future years. The table on page 3 provides a reconciliation of the change in the Actuarial Contribution Rate from the prior valuation. As that table illustrates, the Actuarial Contribution Rate in the current valuation is 0.83% higher due to actual contributions less than the Actuarial Contribution Rate. If all actuarial assumptions are met in the future, the contribution shortfall will increase and its impact on the Actuarial Contribution Rate will also increase, possibly significantly. We strongly recommend that the contribution shortfall between the actual contribution rate and the Actuarial Contribution Rate be addressed and measures be taken to eliminate it. The longer action is delayed to address this funding shortfall, the higher the ultimate contribution rate will be.

The contribution shortfall also has an impact on the Net Pension Obligation (NPO) as determined under Governmental Accounting Standard Number 27 (GASB27). On page 12 of our report we show the development of the NPO. As of December 31, 2007 the NPO was \$45.5 million, compared to \$31.6 million as of December 31, 2006. The NPO will increase from year to year by interest on the NPO and by the shortfall between the actual contribution rate and the Actuarial Contribution Rate. If the currently scheduled contribution rates remain unchanged and all actuarial assumptions are met in the future, the NPO is projected to exceed \$100 million by 2011.

Bargaining agreements with the Police and Fire unions expired at the end of 2007. New agreements are not yet in place, so this valuation assumes continuation of the existing previous contract provisions. The Fire Union's Executive Board accepted an offer from the City on July 31, 2008, which will now be submitted to the union members and City Council for approval. The proposed contract would increase pension contributions over the next several years and would change the pension benefit formula; these adjustments would have a positive effect on the funded status of the pension system.



#### Summary of Principal Results

| 1. | Participant Data                        | 2006<br><u>Valuation</u> | 2007<br><u>Valuation</u> | 2008<br><u>Valuation</u> |
|----|---|--------------------------|--------------------------|--------------------------|
|    | Number of:                              |                          |                          |                          |
|    | Active Members                          | 1,412                    | 1,423                    | 1,335                    |
|    | Service Retirements                     | 639                      | 684                      | 847                      |
|    | Surviving Spouses and Children          | 276                      | 272                      | 279                      |
|    | Disabled                                | 257                      | 252                      | 249                      |
|    | Deferred Vested                         | 8                        | 9                        | 13                       |
|    | Annual Salaries of Active Members       | \$86,312,287             | \$93,882,241             | \$91,778,346             |
|    | Average Salary                          | 61,128                   | 65,975                   | 68,748                   |
|    | Average Age of Active Members           | 39.7                     | 39.8                     | 38.6                     |
| 2. | Assets and Liabilities                  |                          |                          |                          |
|    | Total Actuarial Liability               | \$746,490,736            | \$829,097,202            | \$898,199,279            |
|    | Assets for Valuation Purposes           | 453,172,392              | 494,753,150              | 530,496,413              |
|    | Unfunded Actuarial Liability (UAL)      | 293,318,344              | 334,344,052              | 367,702,866              |
|    | Present Value of Prior Service Payments | (14,000,484)             | (13,770,566)             | (13,522,254)             |
|    | UAL for Funding Purposes                | 279,317,860              | 320,573,486              | 354,180,612              |
| 3. | Contribution Rates                      |                          |                          |                          |
|    | Actuarial Contribution Rate             | 48.86%                   | 49.93%                   | 53.20%                   |
|    | Member Contribution Rate                | 14.94%1                  | 14.95%1                  | 14.88%1                  |
|    | Employer Contribution Rate              | 20.55%1                  | 20.57%1                  | 20.47%1                  |
|    | Employer "Past Service" payment         | 1.45%                    | 1.34%                    | 1.40%                    |
| 4. | Shortfall/(Excess) Contributions        |                          |                          |                          |
|    | Actuarial Contribution Rate             | 48.86%                   | 49.93%                   | 53.20%                   |
|    | Statutory Contribution Rate             | 36.94%                   | 36.86%                   | 36.75%                   |
|    | Shortfall/(Excess)                      | 11.92%                   | 13.07%                   | 16.45%                   |
|    | Expected Payroll for Year               | \$91,319,898             | \$99,029,486             | \$95,109,680             |
|    | Dollar Amount of Shortfall              | \$10,885,332             | \$12,943,154             | \$15,645,542             |

<sup>1</sup> Blended Police and Fire rates effective in 2007.



## Change in Net Plan Assets at Market Value Increases since January 1, 2007

| Assets at January 1, 2007                  | \$507,608,781 |
|--|---------------|
| Receipts:                                  |               |
| City Contributions - Current               | 20,699,211    |
| City Contributions – Past Service          | 1,327,600     |
| Employee Contributions                     | 14,996,443    |
| Investment Income                          | 29,037,672    |
| Total Receipts                             | \$66,060,926  |
| Disbursements:                             |               |
| Pensions Paid to Retirees                  | \$39,653,439  |
| Death Benefits                             | 57,549        |
| Termination Withdrawals                    | 235,811       |
| Medical Fees                               | 471,131       |
| Investment Fees                            | 3,306,559     |
| Travel, Subsistence & Registration         | 21,772        |
| Other                                      | 56            |
| Total Disbursements                        | \$43,746,317  |
| Assets at December 31, 2007 (Market Value) | \$529,923,390 |
| Annualized Yield                           |               |
| - Gross<br>- Net of Expenses               | 5.8%<br>5.1%  |



## Actuarial Value of Assets

Neither the market value of assets, representing a "cash-out" value of Plan assets, nor the book values of assets, representing the cost of investments, may be the best measure of the System's <u>ongoing</u> ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. The specific technique follows:

| Step 1:                      | Determine the expected value of plan assets at the current valuation date using the actuarial assumption for investment return and the actual receipts and disbursements of the fund since the previous actuarial valuation. |        |   |
|------------------------------|--|--------|---|
| Step 2:                      | Subtract the expected value determined in Step 1 from the total market value of the Fund at the current valuation date.  |        |   |
| Step 3:                      | Multiply the difference between market and expected values 33%.  | deterr | nined in Step 2 by                        |
| Step 4:                      | Add the expected value of Step 1 and the product of Step 3 t value of assets.  | o dete | rmine the actuarial                       |
| Actuarial Va                 | lue of Assets as of January 1, 2007  | \$     | 494,753,150                               |
| a. Total C                   | ipts/Disbursements<br>contributions<br>Payments<br>ange  |        | 37,023,254<br>(40,439,702)<br>(3,416,448) |
| Expected In                  | vestment Earnings  |        | 39,446,223                                |
| Expected A                   | ctuarial Value of Assets as of December 31, 2007   |        | 530,782,925                               |
| Market Valu                  | e as of December 31, 2007  |        | 529,923,390                               |
| Difference I                 | Between Market and Expected Values   |        | (859,535)                                 |
| Actuarial Va $(4) + 1/3 * ($ | lue of Assets as of December 31, 2007<br>(6)   | \$     | 530,496,413                               |
|                              |  |        |   |



Annualized Yield on Actuarial Value of Assets for 2007

1.

2.

3.

4.

5.

6.

7.

7.9%

## UNFUNDED ACTUARIAL LIABILITY

The actuarial liability is the portion of the present value of future benefits which will not be paid by future normal costs. The actuarial value of assets is subtracted from the actuarial liability to determine the unfunded actuarial liability.

| 1. Entry Age Normal Actuarial Liability                | \$<br>898,199,279 |
|--|-------------------|
| 2. Present Value of Prior Service Payments             | 13,522,254        |
| 3. Actuarial Value of Assets                           | 530,496,413       |
| 4. Unfunded Actuarial Liability<br>(1) $-$ (2) $-$ (3) | \$<br>354,180,612 |

### **ACTUARIAL BALANCE SHEET**

#### Assets

| Actuarial Value of Assets   | \$<br>530,496,413   |
|---|---------------------|
| Present Value of Future Normal Costs  | 296,780,981         |
| Present Value of Future Contributions<br>to Amortize Unfunded Actuarial Liability | 354,180,612         |
| Total Net Assets  | \$<br>1,181,458,006 |
| Liabilities   |                     |
| Present Value of Future Benefits:   |                     |
| Retired Members and Beneficiaries   | \$<br>497,226,834   |
| Disabled Members  | 74,388,884          |
| Active Members  | 605,811,021         |
| Vested Terminated Members   | 4,031,267           |
| Total Liabilities   | \$<br>1,181,458,006 |



## DEVELOPMENT OF ACTUARIAL CONTRIBUTION RATE

The actuarial cost method used to determine the required level of annual contributions to support the expected benefits is the Entry Age Normal Cost Method. Under this method, the total cost is comprised of the normal cost rate and the unfunded actuarial liability payment. The Plan is financed by contributions from members and the City.

| 1. (a) Normal Cost   | \$ 26,549,916       |
|--|---------------------|
| <ul><li>(b) Expected Covered Payroll for Members Under<br/>Assumed Retirement Age</li><li>(c) Normal Cost Rate</li></ul>         | \$ 93,683,543       |
| (a) / (b)  | 28.34%              |
| 2. Unfunded Actuarial Liability/(Surplus)<br>at Valuation Date   | \$ 354,180,612      |
| 3. Amortization Factor to Pay UAL as a   |                     |
| Level Percent of Payroll over 25 Years   | 16.48998            |
| 4. Unfunded Actuarial Liability/(Surplus) Payment<br>(Adjusted to Mid-Year)  |                     |
| $[(2) / (3)] \ge 1.08^{1/2}$   | \$ 22,321,148       |
| 5. Prior Service Payment   | <b>\$ 1,327,600</b> |
| 6. Total Projected Payroll for the Year  | \$ 95,109,680       |
| <ul> <li>7. Unfunded Actuarial Liability and Prior Service Payments<br/>as a Percent of Payroll<br/>[(4) + (5)] / (6)</li> </ul> | 24.86%              |
| 8. Total Contribution as a Percent of Pay  | <b>52 2</b> 00/     |
| (1c) + (7)   | 53.20%              |



## Governmental Accounting Standards Board Disclosure SCHEDULE OF FUNDING PROGRESS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board (All Dollar Amounts in Millions)

| Actuarial<br>Valuation<br>Date | Market<br>Value of<br>Assets<br>(a) | Actuarial<br>Accrued<br>Liability (AAL)*<br>(b) | Unfunded<br>AAL<br>(UAAL)<br>(b-a) | Funded<br>Ratio<br>(a/b) | Covered<br>Payroll (P/R)<br>(c) | UAAL as a<br>Percentage of<br>Covered P/R<br>[(b-a)/c] |
|--------------------------------|-------------------------------------|---|------------------------------------|--------------------------|---------------------------------|--|
| 12/31/02                       | 314.1                               | 481.6   | 167.5                              | 65.2                     | 79.7                            | 210  |
| 12/31/03                       | 383.7                               | 511.9   | 128.2                              | 75.0                     | 85.1                            | 151  |
| 12/31/04                       | 420.3                               | 543.9   | 123.6                              | 77.3                     | 82.1                            | 151  |
| 12/31/05                       | 453.3                               | 703.8   | 250.5                              | 64.4                     | 86.8                            | 289  |
| 12/31/06                       | 507.6                               | 801.1   | 293.5                              | 63.4                     | 91.7                            | 320  |
| 12/31/07                       | 530.8                               | 882.7   | 351.9                              | 60.1                     | 99.6                            | 353  |

\*Prior to 2005, this amount was based on the Projected Unit Credit method. Starting in 2005 the Entry Age Normal method is used.

AAL amounts shown here are estimated amounts based on the most recent actuarial valuation report available as of the financial reporting date.



## SCHEDULE OF EMPLOYER CONTRIBUTIONS

(All Dollar Amounts in Millions)

| Fiscal<br>Year<br>Ending | Covered<br>Employee<br>Payroll <sup>(1)</sup> | Actual<br>Employer<br>Contributions | Actual Employer<br>Contribution % <sup>(2)</sup> | Annual Required<br>Contribution<br>(ARC) % <sup>(3)</sup> | Annual<br>Pension Cost<br>(APC) | Percentage of<br>APC Contributed |
|--------------------------|---|-------------------------------------|--|---|---------------------------------|----------------------------------|
| 12/31/05                 | 86.8  | 17.76                               | 20.46  | 30.29   | 26.15                           | 78                               |
| 12/31/06                 | 91.7  | 20.17                               | 22.00  | 33.92   | 31.10                           | 65                               |
| 12/31/07                 | 99.6  | 20.70                               | 20.78  | 34.98   | 34.56                           | 60                               |

(1) Computed as the dollar amount of the actual employer contribution made as a percentage of payroll divided by the contribution rate, expressed as a percentage of payroll. Payroll is estimated for years where no valuation was done.

(2) The actual and required employer contributions are expressed as a percentage of payroll.

(3) The ARC (as a percentage of payroll) is assumed to remain the same as the prior year when no valuation was performed.



## City of Omaha Police & Firefighters' Retirement System Development of the Net Pension Obligation in Accordance with Statement No. 27 of the Governmental Accounting Standards Board

| Fiscal Year End :                  | 06/30/98     | 12/31/98    | 12/31/99     | 12/31/00     | 12/31/01     | 12/31/02     | 12/31/03     | 12/31/04     | 12/31/05     | 12/31/06     | 12/31/07     |
|------------------------------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Assumptions and Methods            |              |             |              |              |              |              |              |              |              |              |              |
| Interest Rate                      | 8.50%        | 8.00%       | 8.00%        | 8.00%        | 8.00%        | 8.00%        | 8.00%        | 8.00%        | 8.00%        | 8.00%        | 8.00%        |
| Amortization Period (years)        | 15           | 15          | 15           | 15           | 15           | 15           | 30           | 30           | 30           | 30           | 30           |
| Cost Method                        | Aggregate    | Aggregate   | Aggregate    | Aggregate    | Aggregate    | Aggregate    | Entry Age    |
| Annual Pension Cost :              |              |             |              |              |              |              |              |              |              |              |              |
| Annual Required Contribution (ARC) | 12,130,894   | 9,545,452   | 10,943,105   | 11,439,320   | 11,738,696   | 15,392,189   | 23,329,940   | 22,487,399   | 26,255,804   | 31,102,053   | 34,842,280   |
| Interest on NPO                    | 744,035      | 741,784     | 622,503      | 434,172      | 244,243      | 56,158       | 59,689       | 543,111      | 1,000,069    | 1,670,728    | 2,530,416    |
| Adjustment to ARC                  | (1,054,082)  | (1,083,279) | (909,084)    | (634,052)    | (356,684)    | (82,012)     | (66,275)     | (603,040)    | (1,110,419)  | (1,855,081)  | (2,809,629)  |
| Annual Pension Cost                | 11,820,847   | 9,203,957   | 10,656,524   | 11,239,440   | 11,626,255   | 15,366,335   | 23,323,354   | 22,427,470   | 26,145,454   | 30,917,700   | 34,563,067   |
| Employer Contribution for the Year | 11,301,890   | 6,099,534   | 13,010,651   | 13,613,563   | 13,977,312   | 15,322,201   | 17,280,573   | 16,715,500   | 17,762,209   | 20,171,610   | 20,699,211   |
| Net Pension Obligation (NPO):      |              |             |              |              |              |              |              |              |              |              |              |
| NPO at beginning of year           | 8,753,349    | 9,272,306   | 7,781,283    | 5,427,156    | 3,013,032    | 701,976      | 746,110      | 6,788,891    | 12,500,861   | 20,884,105   | 31,630,195   |
| Annual Pension Cost for year       | 11,820,847   | 4,608,511   | 10,656,524   | 11,239,440   | 11,626,255   | 15,366,335   | 23,323,354   | 22,427,470   | 26,145,454   | 30,917,700   | 34,563,067   |
| Contributions for year             | (11,301,890) | (6,099,534) | (13,010,651) | (13,613,563) | (13,977,312) | (15,322,201) | (17,280,573) | (16,715,500) | (17,762,209) | (20,171,610) | (20,699,211) |
| NPO at end of year                 | 9,272,306    | 7,781,283   | 5,427,156    | 3,053,032    | 701,976      | 746,110      | 6,788,891    | 12,500,861   | 20,884,105   | 31,630,195   | 45,494,051   |



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## POLICE

|  | January 1    |              |
|--|--------------|--------------|
|  | <u>2007</u>  | <u>2008</u>  |
| ACTIVE PARTICIPANTS                            | 772          | 710          |
| NON-ACTIVE PARTICIPANTS                        |              |              |
| Service Retirements                            | 336          | 430          |
| Surviving Spouses                              | 132*         | 137*         |
| Surviving Children                             | 12           | 15           |
| Vested Terminated                              | 5            | 6            |
| Disabled                                       |              |              |
| - In Line of Duty                              | 137          | 139          |
| - Not in Line of Duty                          | 14           | 13           |
| ANNUAL COMPENSATION FOR<br>ACTIVE PARTICIPANTS |              |              |
| Total Annual Compensation                      | \$49,861,783 | \$47,710,209 |
| Average Per Member                             | 64,588       | 67,197       |
| ANNUAL PENSION BENEFIT**                       |              |              |
| Service Retirements                            | \$12,974,272 | \$20,067,482 |
| Surviving Spouses                              | 1,576,256    | 2,712,548    |
| Disabled                                       |              |              |
| - In Line of Duty                              | 3,543,790    | 4,333,925    |
| - Not in Line of Duty                          | 313,250      | 349,342      |
|  |              |              |

\* Includes ex-spouses

\*\* Pension benefits paid from Pension Fund only. COLA benefits paid from General Funds are not reflected.



## **FIREFIGHTERS**

|  | Janua        | ry 1         |
|--|--------------|--------------|
|  | <u>2007</u>  | <u>2008</u>  |
| ACTIVE PARTICIPANTS                            | 651          | 625          |
| NON-ACTIVE PARTICIPANTS                        |              |              |
| Service Retirements                            | 348          | 416          |
| Surviving Spouses                              | 120*         | 121*         |
| Surviving Children                             | 9            | 7            |
| Vested Terminated                              | 4            | 7            |
| Disabled                                       |              |              |
| - In Line of Duty                              | 93           | 89           |
| - Not in Line of Duty                          | 8            | 8            |
| ANNUAL COMPENSATION FOR<br>ACTIVE PARTICIPANTS |              |              |
| Total Annual Compensation                      | \$44,020,458 | \$42,278,873 |
| Average Per Member                             | 67,620       | 67,646       |
| ANNUAL PENSION BENEFIT**                       |              |              |
| Service Retirements                            | \$13,863,944 | \$19,581,873 |
| Surviving Spouses                              | 1,360,850    | 2,329,127    |
| Disabled                                       |              |              |
| - In Line of Duty                              | 2,476,230    | 2,964,343    |
| - Not in Line of Duty                          | 148,115      | 212,253      |
|  |              |              |

\* Includes ex-spouses

\*\* Pension benefits paid from Pension Fund only. COLA benefits paid from General Funds are not reflected.



## **POLICE AND FIREFIGHTERS**

|  | January 1    |                 |
|--|--------------|-----------------|
|  | <u>2007</u>  | 2008            |
| ACTIVE PARTICIPANTS                            | 1,423        | 1,335           |
| NON-ACTIVE PARTICIPANTS                        |              |                 |
| Service Retirements                            | 684          | 846             |
| Surviving Spouses                              | 252*         | 258*            |
| Surviving Children                             | 21           | 22              |
| Vested Terminated                              | 9            | 13              |
| Disabled                                       |              |                 |
| - In Line of Duty                              | 230          | 228             |
| - Not in Line of Duty                          | 22           | 21              |
| ANNUAL COMPENSATION FOR<br>ACTIVE PARTICIPANTS |              |                 |
| Total Annual Compensation                      | \$93,882,241 | \$89,989,082    |
| Average Per Member                             | 65,975       | 67 <b>,</b> 407 |
| ANNUAL PENSION BENEFIT**                       |              |                 |
| Service Retirements                            | \$26,838,216 | \$39,649,355    |
| Surviving Spouses                              | 2,937,106    | 5,041,675       |
| Disabled                                       |              |                 |
| - In Line of Duty                              | 6,020,020    | 7,298,268       |
| - Not in Line of Duty                          | 461,365      | 561,595         |
|  |              |                 |

\* Includes ex-spouses

\*\* Pension benefits paid from Pension Fund only. COLA benefits paid from General Funds are not reflected.



## Appendix A

## **Plan Statistics Comparison**

|   | January 1     |               |
|---|---------------|---------------|
|   | 2007          | 2008          |
| ACTIVE MEMBERS                          |               |               |
| Average Attained Age                    | 39.8          | 38.6          |
| Average Hire Age                        | 28.1          | 28.5          |
| Average Past Service                    | 11.6          | 10.1          |
| Average Annual Compensation             | \$65,975      | \$67,407      |
| NON-ACTIVE MEMBERS                      |               |               |
| Average Attained Age                    |               |               |
| Service Retirees                        | 63.3          | 61.8          |
| Disability Retirees                     |               |               |
| - In Line of Duty                       | 64.0          | 64.4          |
| - Not in Line of Duty                   | 64.4          | 64.7          |
| Surviving Spouses                       | 73.5          | 73.1          |
| Average Monthly Benefit                 |               |               |
| Service Retirees                        | \$3,270       | \$3,906       |
| Disability Retirees                     |               |               |
| - In Line of Duty                       | 2,181         | 2,667         |
| - Not in Line of Duty                   | 1,748         | 2,229         |
| Surviving Spouses                       | 971           | 1,628         |
| VALUE OF PLAN ASSETS<br>MARKET VALUE    | \$507,608,781 | \$529,923,390 |
| VALUE OF PLAN ASSETS<br>ACTUARIAL VALUE | \$494,753,150 | \$530,496,413 |



## **ACTUARIAL METHOD**

Valuation of the plan use the *"entry age-normal"* cost method. Under this actuarial method, the value of future costs attributable to future employment of participants is determined. This is called <u>present value of future normal costs</u>. The following steps indicate how this is determined for benefits expected to be paid upon normal retirement.

- 1. The expected pension benefit at normal retirement is determined for each participant.
- 2. A <u>normal cost</u>, as a level percent of pay, is determined for each participant assuming that such level percent is paid from the employee's entry age into employment to his normal retirement. This normal cost is determined so that its accumulated value at normal retirement is sufficient to provide the expected pension benefits.
- 3. The sum of the normal costs for all participants for one year determines the total normal cost of the plan for one year.
- 4. The value of future payments of normal cost in future years is determined for each participant based on his years of service to normal retirement age.
- 5. The sum of the value of future payments of normal cost for all participants determines the present value of future costs.

The value of future costs attributable to past employment of participants, which is called the <u>accrued</u> <u>liability</u> is equal to the present value of benefits less the present value of future normal costs. The <u>unfunded accrued liability</u> is equal to the excess of the accrued liability over assets. The unfunded accrued liability is amortized as a level percent of pay over 30 years beginning January 1, 2003.

As experience develops with the plan, actuarial gains and actuarial losses result. These actuarial gains and losses indicate the extent to which actual experience is deviating from that expected on the basis of the actuarial assumptions. In each year, as they occur, actuarial gains and losses are recognized in the unfunded accrued liability as of the valuation date.



# Appendix B

# Actuarial Assumptions

| Interest:   | 8.0% (net of investment expenses)   |
|---|---|
| Salary Increases:   | Merit increases based on service plus a general wage increase.                          |
| Service Retirement Age:   | Graduated rates based on service.   |
| Mortality:<br>Active Members                                      | RP-2000 Healthy Annuitant Table with generational improvements, set forward one year.   |
| Service Pensioners and<br>Beneficiaries                           | RP-2000 Healthy Annuitant Table with generational improvements, set forward one year.   |
| Disabled  | RP-2000 Disability Table with generational improvements.                                |
| Disability:   | Graduated rates by age. See table on next page.   |
| Percent of Disabilities<br>in Line of Duty:                       | 85%   |
| Medical Expenses for<br>Disabilities in Line of Duty:             | 5% load on liability for current and future disabled members.                           |
| Percent Married at Death or Retirement:                           | 75%   |
| Percent with Dependents at Death:                                 | 77%   |
| Average Number of<br>Children per Married Member:                 | 1   |
| Turnover:   | Graduated rates by age. See table on next page.   |
| Assets:   | Actuarial value of assets equal to $1/3$ of market value, plus $2/3$ of expected value. |
| Load on Active member liability to reflect final wage adjustments | 10%   |
| Increase in total annual payroll                                  | 4.0%  |
| Assumed annual rate of inflation                                  | 3.5%  |



|                    |       |         | Annual Rate |          |
|--------------------|-------|---------|-------------|----------|
| Age on<br>1/1/2006 | Mo    | rtality | Disability  | Turnover |
|                    | Males | Females |             |          |
| 20                 | .03%  | .02%    | .26%        | 1.41%    |
| 30                 | .05   | .03     | .30         | 1.69     |
| 40                 | .11   | .07     | .52         | .63      |
| 50                 | .20   | .16     | .95         | .00      |
| 60                 | .49   | .42     | 1.45        | .00      |

## SAMPLE RATES

#### Salary Progression

| Years of<br>Service | Inflation | Productivity | Merit &<br>Longevity | Total<br>Increase |
|---------------------|-----------|--------------|----------------------|-------------------|
| 1                   | 3.5%      | 0.5%         | 2.5%                 | 6.5%              |
| 5                   | 3.5%      | 0.5%         | 2.5                  | 6.5               |
| 10                  | 3.5%      | 0.5%         | 2.0                  | 6.0               |
| 15                  | 3.5%      | 0.5%         | 1.0                  | 5.0               |
| 20                  | 3.5%      | 0.5%         | 0.5                  | 4.5               |
| 25                  | 3.5%      | 0.5%         | 0.0                  | 4.0               |
| 30                  | 3.5%      | 0.5%         | 0.0                  | 4.0               |

#### Service Retirements

#### Assumed retirement rates are based on the number of years of credited service as follows:

| Years of Service | Distribution | Annual Rate |
|------------------|--------------|-------------|
| Less than 25     | 0.0%         | 0.0%        |
| 25               | 60.0         | 60.0        |
| 26               | 25.0         | 62.5        |
| 27               | 15.0         | 100.0       |

If a member was hired after age 37, then it is assumed that member would retire at the later of age 62 or 10 years of service.



# Appendix C

| Average Final Monthly<br>Compensation:<br>Section 22-63    | Highest average monthly compensation during<br>any consecutive twenty-six (26) pay periods<br>out of the last five years of service as a member of the<br>system for which service credit had been earned.  |
|--|---|
| Member Contributions:<br>Section 22-73(a)<br>Section 22-68 | Ultimate rates effective July 1, 2007:<br>14.55% of total monthly salary for police.<br>15.40% of total monthly salary for fire.  |
| <b>City of Omaha Contributions:</b><br>Section 22-73(b)    | Ultimate rates effective July 1, 2007:<br>20.17% of each members total monthly salary for police.<br>21.015% of each members total monthly salary for fire.<br>In addition, the City shall make contributions of<br>\$1,327,600 annually through the year 2028.   |
| Service Retirement Eligibility:<br>Section 22-75           | Available after age 55 and 10 years of service or age 45 and 20 years of service.   |
| Service Retirement Pension:                                | Beginning July 1, 2007, lifetime monthly annuity as follows:  |
| Section 22-76  | Percentage of<br>Average Final<br>Years of Minimum Monthly<br><u>Service Age Compensation</u><br>10 but less than 15 55 20%<br>15 but less than 20 55 30%<br>20 but less than 25 45** 55%*<br>25 years 45 75%<br>*55% at 20 years of service, plus 2% for each additional<br>six months of service after 20 years and before 25 years.<br>**The minimum retirement age with less than 25 years is 55<br>for Fire. |
| Cost of Living Adjustment (COLA):                          | The monthly pension shall be increased by the lesser of 3% or \$50 (\$65 for Fire retirements after June 30, 2007). The increase will be made annually, beginning in the 13 <sup>th</sup>   |



month of retirement.

#### **Disability Retirement:**

1. In Line of Duty: Section 22-78 A member shall become entitled to the following benefits while permanently disabled.

Years of ServicePercentage of Average FinalMonthly Compensation

Less than 25 50%\* 25 Same as Service Retirement Pension

\* 55% for Fire after June 30, 2007

A member shall become entitled to the following benefits while permanently disabled.

|                     | Percentage of Average Final        |
|---------------------|------------------------------------|
| Years of Service    | Monthly Compensation               |
| Up to 10 years      | 10%                                |
| 10 but less than 15 | 20%                                |
| 15 but less than 20 | 30%                                |
| 20 or more          | Same as Service Retirement Pension |

Not payable while full salary continues.

#### Spouse's Pension:

2.

1. Death of Active Member in Line of Duty:

Not in Line of Duty:

Section 22-79

A monthly pension equal to 49% (52% Fire) of the member's average final monthly compensation is paid to the surviving spouse if death occurs while the active member has less than 25 years of service. A monthly pension equal to 69% (72% Fire) of the member's average final monthly compensation is paid to the surviving spouse if death occurs after the active member has 25 years or more of service.



2. Death of Active Member Not in Line of Duty:

The following monthly pension is paid to the surviving spouse.

|                           | Percentage of Average |
|---------------------------|-----------------------|
| Years of Service at Death | Final <u>Monthly</u>  |
|                           | Compensation*         |
| 0-3                       | 0%                    |
| 3-10                      | 35%                   |
| 11                        | 36.4%                 |
| 12                        | 37.8%                 |
| 13                        | 39.2%                 |
| 14                        | 40.6%                 |
| 15                        | 42.0%                 |
| 16                        | 43.4%                 |
| 17                        | 44.8%                 |
| 18                        | 46.2%                 |
| 19                        | 47.6%                 |
| 20-25                     | 49.0%                 |
| 25+                       | 69%                   |

\* add 3% to each number for Fire effective July 1, 2007

Benefit terminates upon remarriage of spouse.

75% (90% for Fire retirements after June 30, 2007) of the pension the member was receiving or was eligible to receive at the time of death. Upon spouse's remarriage, all benefits cease.

Upon the death of an active or retired member, the following benefit will be paid to the surviving children until age 18.

| Number of          | Percentage of Average Final |
|--------------------|-----------------------------|
| Dependent Children | Monthly Compensation        |
| 1                  | 15%                         |
| 2                  | 30%                         |
| 3                  | 45%                         |
| 4 or more          | 50%                         |

#### Lump Sum Death Benefits:

1. Active Member without Eligible Dependents: Section 22-84(a) Accumulated member's contributions, or \$500 if greater.



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3. Death of Member Eligible for Retirement or Death of Retired Member: Section 22-82

Children's Pension: Section 22-83

# Appendix C

| 2.  | <b>Retired Member without</b><br><b>Eligible Dependents:</b><br>Section 22-84(b) | Accumulated member's contribution less previous pension payments made, or \$500 if greater.  |
|-----|--|--|
| 3.  | Active Member with<br>Eligible Dependents:<br>Section 22-84(c)                   | An amount payable immediately, equal to one year's<br>salary computed on the basis of the maximum monthly<br>rate for patrolmen and firefighters, plus the deceased<br>member's accumulated contributions less pension<br>payments to his dependents, payable to the dependent<br>who last ceases to receive pension benefits.   |
| 4.  | <b>Retired Member with</b><br><b>Eligible Dependents:</b><br>Section 22-84(c)    | \$1,000 (\$5,000 Fire) payable immediately, plus the excess<br>over \$1,000 (\$5,000 Fire) if any, of the deceased member's<br>accumulated <b>contributions less pension payments to</b><br><b>the member</b> and his dependents, payable to the<br>dependent who last ceases to receive pension benefits.   |
| Ves | Sting:<br>Section 22-86  | Upon severance of employment by a member with less<br>than 10 years of service and prior to obtaining eligibility<br>under Section 22-75, a refund of such member's<br>accumulated contributions.  |
|     | Section 22-90  | Upon severance of employment by a member before age 45 with more than 10 years of service and prior to obtaining eligibility under Section 22-75, the member may elect, in lieu of receiving a refund of contributions, to receive a monthly pension, according to the table below, commencing at age 55. Such deferred pension shall be based on service credited to the date of severance. |

|                     |            | Percentage of<br>Average Final |
|---------------------|------------|--------------------------------|
| Years of            | Minimum    | Monthly                        |
| Service             | <u>Age</u> | <b>Compensation</b>            |
| 10 but less than 15 | 55         | 20%                            |
| 15 but less than 20 | 55         | 30%                            |
| 20 but less than 25 | 45         | 55%                            |
| 25 or more          | 45         | 75%                            |

