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# Retirement Plan for the Employees of Florissant Valley Fire Protection District

## Actuarial Cost Statement for Substantial Proposed Changes In Accordance With R.S.MO. S105.665

The Retirement Plan for the Employees of Florissant Valley Fire Protection District is being amended effective January 1, 2013. This amendment will:

(1) Update the table of average monthly earnings in Schedule A of the retirement plan as follows:

| Classification | Previous | Proposed |
|---|---|---|
| Firefighter | 4,806.69 | 6,852.08 |
| Captain | 5,172.68 | 7,475.00 |
| Deputy Chief | 6,030.65 | 8,097.83 |
| Chief | 6,950.10 | 8,720.83 |
| Office Manager | 3,263.27 | 4,600.00 |
| Secretary | 1,851.97 | 3,075.00 |

(2) Average monthly earnings under this table will be increased by $125 per month for each Plan Year after 2013. Previously, average monthly earnings were increased by $100 per month for each Plan Year after 2001.

(3) Limit average monthly earnings to the highest 24-month average of the Participant's actual monthly earnings. Hence, the monthly benefit under the Plan cannot exceed 75% of the highest 24-month average of the Participant's actual monthly earnings.

The following information is being provided in accordance with the requirements of R.S.MO. S105.665. The purpose of this information is to compare the effects of the proposed changes and for the actuary to certify to the soundness of these changes.

| | Without Proposed Changes | Includes Proposed Changes |
|---|---|---|
| (1) The level normal cost of Plan benefits currently in effect, which cost is expressed as a percent of active payroll | 7.49% | 8.65% |
| (2) The contribution for unfunded accrued liabilities currently payable by the Plan, expressed as a percent of active employee payroll and with amortization of unfunded accrued liabilities over a period of 30 years | 1.05% | 4.90% |
| The contribution for unfunded accrued liabilities currently payable by the Plan, expressed as a percent of active employee payroll and with amortization of unfunded accrued liabilities over a period of 20 years | 1.24% | 5.77% |

| | Without Proposed Changes | Includes Proposed Changes |
|---|---|---|
| The contribution for unfunded accrued liabilities currently payable by the Plan, expressed as a percent of active employee payroll and with amortization of unfunded accrued liabilities over a period of 10 years | 1.88% | 8.77% |
| (3) The total contribution rate expressed as a percentage of active employees payroll (with unfunded accrued liabilities amortized over 30 years) | 8.42% | 13.77% |
| The total contribution rate expressed as a percentage of active employees payroll (with unfunded accrued liabilities amortized over 20 years) | 8.62% | 14.70% |
| The total contribution rate expressed as a percentage of active employees payroll (with unfunded accrued liabilities amortized over 10 years) | 9.31% | 17.90% |

(4) Employees pay 1% of payroll toward the funding of this retirement plan, which for 2013 will total approximately $51,692. The District pays the remainder.

| | Proposed Changes: Increase (Decrease) |
|---|---|
| (5) The total contribution rate expressed as a percent of active employee payroll which would be sufficient to adequately fund the proposed change in benefits (with unfunded accrued liabilities amortized over 30 years) | 5.35% |
| The total contribution rate expressed as a percent of active employee payroll which would be sufficient to adequately fund the proposed change in benefits (with unfunded accrued liabilities amortized over 20 years) | 6.08% |
| The total contribution rate expressed as a percent of active employee payroll which would be sufficient to adequately fund the proposed change in benefits (with unfunded accrued liabilities amortized over 10 years) | 8.59% |

(6) Additional contributions are mandated by the proposed change, but the overall contribution remains well below the contribution made over the past 9 years.

(7) The proposed changes will not impair the ability of the Plan to meet the obligations in effect at the time this proposal is being made.

(8) All assumptions relied upon to evaluate the present financial condition of the Plan and all assumptions relied upon to evaluate the impact of the proposed change upon the financial condition of the Plan, which shall be those assumptions used in preparing the most recent periodic actuarial valuation for the Plan, unless the nature of the proposed change is such that alternative assumptions are clearly warranted and shall be made and stated with respect to at least the following:

(a) Investment return: for all years, 6.75% per year, compounded annually.

(b) Pay increases: Salaries are based upon a table of job classifications effective January 1, 2002. Each salary in the table is increased $1,500 per year. For funding purposes, we assume a salary increase of 0.5% to reflect promotions to higher job classifications.

(c) Mortality of employees and officials, and other persons who may receive benefits under the Plan:

For active, retired, terminated participants and beneficiaries, we apply mortality rates from the 1983 Group Annuity Mortality table for males, set back 6 years for females.

For disabled participants, we apply mortality rates from the 1983 Group Annuity Mortality table for males, set forward 6 years for both disabled males and disabled females.

(d) Withdrawal (turnover): Withdrawal rates are based on the Actuary's T-tables, blended 50% of the T-1 rates and 50% of the T-2 rates.

(e) Disability: Rates equal to the 1983 Individual Annuity Mortality table for males set back 2 years.

(f) Retirement ages: We assume participants retire at their normal retirement age under the plan, which is the earlier of age 60 or the completion of 30 years of service.

(g) Change in active employee group size: The group size is assumed to change in accordance with the retirement rates, mortality rates, disability rates and withdrawal rates stated above. Future potential employees are not taken into account.

(h) Option Election: Other than the return of employee contributions with interest, the plan no longer has a lump sum option. We assume all participants elect the normal form of benefit, which is an annuity payable for the life of the participant.

(9) In my opinion, the assumptions used for the valuation produce results which, in the aggregate, are reasonable.

(10) A description of the actuarial funding method used in preparing the valuation, including a description of the method used and the period applied in amortizing

unfunded accrued liabilities:

The Entry Age Normal Cost Method, with entry age determined at the date the employee would have entered the plan had the plan always been in existence.

On the initial valuation date, the annual cost (individual normal cost for each participant) is determined, as a level dollar amount for each year from entry age until retirement or termination. The sum of these individual normal costs for all active participants whose attained ages are under the assumed retirement age is the normal cost for the initial plan year. The normal costs attributable to years prior to the initial valuation date, accumulated with interest, over the plan assets represents the initial unfunded accrued liability.

In subsequent years, the normal cost and unfunded accrued liability are recalculated on the basis described above. Experience gains and losses (changes in the unfunded accrued liability which result from causes other than contributions and the accrual of interest and additional normal costs) are directly calculated under this cost method. Adjustments to the unfunded accrued liability can occur, e.g. for plan amendments or assumption changes; such adjustments are determined by computing the change in the initial unfunded accrued liability.

Assets are valued at market value.

| | |
|---|---|
| (11) The increase in total contribution amount required to adequately fund the proposed change in benefits, expressed in annual dollars as determined by multiplying the increase in total contribution rate by the active employee annual payroll used for this valuation - with unfunded accrued liabilities amortized over 30 years | $276,553 |
| The increase in total contribution amount ...... with unfunded accrued liabilities amortized over 20 years) | 314,288 |
| The increase in total contribution amount ...... with unfunded accrued liabilities amortized over 10 years) | 444,035 |

Respectfully submitted,

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