

### Gabriel Roeder Smith & Company Consultants & Actuaries

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April 12, 2013

Ms. Leslie Jones
Finance Director
City of Joplin Policemen's and
Firemen's Pension Plan
602 S. Main
Joplin, MO 64801

Re: City of Joplin Policemen's and Firemen's Pension Plan

Dear Leslie:

Enclosed are ten copies of a supplemental actuarial valuation to measure the financial effect of changes for the City of Joplin Policemen's and Firemen's Pension Plan.

If you have any questions regarding our calculations, please contact us.

Sincerely,

Brad Lee Armstrong

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BLA:bd Enclosures

SUBMITTED To: Ms. Leslie Jones, Finance Director.

City of Joplin Policemen's and Firemen's Pension Plan

**DATE:** April 12, 2013

SUBMITTED BY: Brad Lee Armstrong, ASA, EA, MAAA and Heidi Barry, ASA, MAAA

Gabriel, Roeder, Smith & Company

This report contains the results of a supplemental actuarial valuation, requested by the City for the City of Joplin Policemen's and Firemen's Pension Plan to measure the financial effect of a recent judicial decision affecting the administration of Duty Disability benefits as well as the decrease in cost to the pension system by removing the Duty Disability benefits from the plan prior to Normal Retirement Age. The actuaries issuing this report are independent of the plan sponsor, are Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The date of this valuation was October 31, 2012. Supplemental valuations do not predict the result of future actuarial valuations. (Future activities can affect future valuation results in an unpredictable manner). Rather, supplemental valuations give an indication of the probable effect of only the benefit changes on future valuations without comment on the complete end result of the future valuations.

The valuation was based on actuarial data submitted for the October 31, 2012 annual actuarial valuation and actuarial methods as of October 31, 2012. Valuation assumptions are based on the October 31, 2012 valuation, except where indicated. In particular:

- The assumed rate of interest was 7.00%.
- The assumed rate of wage inflation was 2.50%.
- The valuation method was the entry age actuarial cost method.
- Changes in accrued liabilities as a result of the proposed plan changes were amortized as a level dollar over a closed 24 year period as of October 31, 2012.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose described.

We did not include any changes in benefits for present inactive or retired members.

A brief summary of the data used in the October 31, 2012 valuation is presented below.

		Covered	Average in Years		
Group	Number	Payroll	Age	Service	
Police Hired before January 31, 2009	74	\$ 3,486,742	36.33	9.00	
Fire Hired before January 31, 2009	41	\$ 2,114,856	41.30	11.64	
Police Hired after January 31, 2009	31	\$ 1,085,428	29.31	2.18	
Fire Hired after January 31, 2009	53	\$ 1,755,625	29.00	1.56	
Total	199	\$ 8,442,651	34.31	6.50	

This supplemental valuation takes into consideration a change in the administration of Duty Disability benefits due to a recent judicial decision. The judicial decision resulted in an increase in benefits for eligible members retiring under Duty Disability provisions prior to Normal Retirement Age. Due to this increased benefit, there is a possibility for an increased rate of Duty Disability Retirement. As discussed with the City, the estimated potential increase in the Duty Disability Rate is on the order of five times greater than historically such that 10% of the current workforce could go out on disability. Due to the fact that the change in provisions affects the Duty Disability benefits only, the Non-Duty Disability rates are assumed not to change. The exhibit on the next page displays the rates of Non-Duty and Duty Disability used in the October 31, 2012 valuation, as well as the rates used in this supplemental.

### **Current and Proposed Disability Rates**

Age	Current Current Total Rate of Rate of Non-Duty Age Disabilities Disabilities		Current Rate of Duty Disabilities		
22	0.08%	0.02%	0.06%		
27	0.09%	0.02%	0.07%		
32	0.12%	0.03%	0.09%		
37	0.17%	0.04%	0.13%		
42	0.26%	0.07%	0.20%		
47	0.41%	0.10%	0.31%		
52	0.68%	0.17%	0.51%		
57	1.16%	0.29%	0.87%		
60 plus	0.00%	0.00%	0.00%		
	Proposed	Proposed	Proposed		
Age	Total Rate of Disabilities	Rate of Non-Duty  Disabilities	Rate of Duty Disabilities		
22	0.32%	0.02%	0.30%		
27	0.36%	0.02%	0.34%		
32	0.48%	0.03%	0.45%		
37	0.68%	0.04%	0.64%		
42	1.04%	0.07%	<b>0.98%</b>		
47	1.64%	0.10%	1.54%		
52	2.72%	0.17%	2.55%		
57	4.64%	0.29%	4.35%		

### Proposal 1 - Administration of Duty Disability Benefit as Determined in Judicial Decision

#### **Present Provisions:**

Monthly Benefit under Duty Disability Retirement — A monthly benefit payable for life shall be a monthly benefit equal to 2.5% (2.2% if hired after January 31, 2009) for each full year of Credited Service times Average Monthly Compensation at time of disability. If the Covered Employee has less than 20 (25 if hired after January 31, 2009) years of service, the Covered Employee will receive an additional 10% of his monthly benefit for each Eligible Spouse and Qualified Child under age 18, up to a maximum of 130% of the monthly normal retirement benefit.

### **Proposed Provisions:**

Monthly Benefit under Duty Disability Retirement — A monthly benefit payable for life shall be a monthly benefit equal to 50% (55% if hired after January 31, 2009) times Average Monthly Compensation at time of disability. If the Covered Employee has less than 20 (25 if hired after January 31, 2009) years of service, the Covered Employee will receive an additional 10% of his monthly benefit for each Eligible Spouse and Qualified Child under age 18, up to a maximum of 130% of the monthly normal retirement benefit.

### **Actuarial Statement**

Additional Cost of Proposed Benefits - Proposal 1				
	Valuation Assumptions		Proposed Assumptions	
Change in Accrued Liability	\$	(56,146)	\$	(175,813)
Change in Amortization Payment	\$	(4,575)	\$	(14,326)
Change in Employer Normal Cost of Benefits	\$	45,566	\$	268,029
Change in First Year Contribution				
(Fiscal Year Beginning November 1, 2013)	\$	40,991	\$	253,703
Expected Payroll as of November 1, 2013	\$	8,870,060	\$	8,870,060
Total Change in Cost	<u>L</u>	0.46%		2.86%

Proposal 2 – Duty Disability Benefit Deferred to Normal Retirement Age

### **Present Provisions:**

Monthly Benefit under Duty Disability Retirement – A monthly benefit payable for life shall be a monthly benefit equal to 2.5% (2.2% if hired after January 31, 2009) for each full year of Credited Service times Average Monthly Compensation at time of disability. If the Covered Employee has less than 20 (25 if hired after January 31, 2009) years of service, the Covered Employee will receive an additional 10% of his monthly benefit for each Eligible Spouse and Qualified Child under age 18, up to a maximum of 130% of the monthly normal retirement benefit.

### **Proposed Provisions:**

Monthly Benefit under Duty Disability Retirement — A monthly benefit payable for life, beginning at the projected Normal Retirement Date shall be a monthly benefit equal to 50% (55% if hired after January 31, 2009) times Average Monthly Compensation at time of disability. If the Covered Employee has less than 20 (25 if hired after January 31, 2009) years of service, the Covered Employee will receive an additional 10% of his monthly benefit for each Eligible Spouse and Qualified Child under age 18, up to a maximum of 130% of the monthly normal retirement benefit.

#### Actuarial Statement

Additional Cost of Proposed Benefits - Proposal 2					
	Valuation		Proposed		
	A	Assumptions		Assumptions	
Change in Accrued Liability	\$	(42,419)	\$	(117,159)	
Change in Amortization Payment	\$	(3,456)	\$	(9,547)	
Change in Employer Normal Cost of Benefits	\$	(4,624)	\$	16,834	
Change in First Year Contribution					
(Fiscal Year Beginning November 1, 2013)	\$	(8,080)	\$	7,287	
Expected Payroll as of November 1, 2013	\$	8,870,060	\$	8,870,060	
Total Change in Cost	<u> </u>	-0.09%		0.08%	

#### **COMMENTS**

Comment 1. The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon present and proposed plan provisions that are outlined in the report. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the authors of this report prior to relying on information in the report.

Comment 2. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

Comment 3. No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them.

Comment 4. In the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

Comment 5. This report is intended to describe the financial effect of the proposed plan changes on the retirement system. Potential effects on other benefit plans were not considered.

Comment 6. The proposed change in Duty Disability rates will have an effect on the number of people assumed to retire under other retirement provisions. Eventually, a review of emerging experience would be needed to determine the ongoing appropriateness of the other retirement assumptions.

#### Resolution No. 2013-001

A RESOLUTION

accepting and approving the Gabriel, Roeder, Smith & Company actuary report and authorizing and directing the City Clerk to maintain the same on file as a public record in compliance with the statutes of the State of Missouri.

WHEREAS, the Policemen's and Firemen's Pension Board requested an actuary report to determine the cost for a recent court ruling to the Pension Plan; and

WHEREAS, pursuant to 105.675 RSMo., the Pension Board is required to make such report available as public information for at least 45 days.

NOW THEREFORE, BE IT RESOLVED BY THE POLICEMEN'S AND FIREMEN'S PENSION BOARD OF THE CITY OF JOPLIN, MISSOURI, as follows:

Section 1. That the Pension Board hereby accepts and approves the Gabriel, Roeder, Smith & Company actuary report, a true and accurate copy being attached hereto as Exhibit "A".

<u>Section 2.</u> That the City Clerk is hereby authorized and directed to place such report on file in the City Clerk's Office for a period of not less than forty-five (45) days from the date of approval of this resolution.

Section 3. That said report shall be available for public inspection in the Office of the City Clerk as a public record during normal business hours.

PASSED BY THE POLICEMEN'S AND FIREMEN'S PENSION BOARD OF THE CITY OF JOPLIN, MISSOURI, this

24th day of October , 2013.

Welliam See City
Bill Scearce Chairperson

ATTEST:

Barbara L Hogelin, City Clerk