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Firefighters' Retirement Plan of the City of St. Louis

GASB 67 and 68 Report as of September 30, 2014

Produced by Cheiron

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BOARD SUMMARY

The purpose of this report and its exhibits is to provide accounting and financial disclosure information under Government Accounting Standards Board Statement 67 and 68 for the Firefighters' Retirement Plan of the City of St. Louis. This information includes:

- Projection of the Total Pension Liability from the actuarial valuation date to the measurement date,
- Calculation of the Net Pension Liability at the discount rate, as well as discount rates 1% higher and lower than the discount rate,
- Changes in the Net Pension Liability,
- Schedule of Employer Contributions,
- Disclosure of Deferred Inflows and Outflows, and
- Calculation of Pension Expense.

Highlights

This report is the first report under GASB 68, and is a supplement to the GASB 67 exhibits under the same reporting date previously provided with the annual actuarial valuation report. The reporting date for the Firefighters' Retirement Plan of the City of St. Louis is September 30, 2014. Measurements as of the reporting date are based on the fair market value of assets and the Total Pension Liability as of September 30, 2014.

Beginning of year measurements are based on the actuarial valuation as of September 30, 2013. There were no significant events during the year. However, liability gains and losses due to experience are included in the reconciliation from one year to the next.

The table on the next page provides a summary of the key results during this reporting period.

Summary of Results

	Measurement Date	
	9/30/2013	9/30/2014
Total Pension Liability	$ 47,262,202	$ 52,268,153
Plan Fiduciary Net Position	1,652,831	19,859,333
Net Pension Liability	45,609,371	32,408,820
Deferred Outflows	0	(248,790)
Deferred Inflows	0	4,689,994
Net Impact on Statement of Net Position	$ 45,609,371	$ 36,850,024
Pension Expense ($ Amount)	N/A	$ 7,065,837
Pension Expense (% of Payroll)	N/A	18.07%
Discount Rate	7.625%	7.625%

BOARD SUMMARY

It is expected that the City will use September 30, 2014 as its initial measurement date under GASB 68. A Net Pension Liability of $45,609,371 will be recognized as of the beginning of the reporting year.

As of the end of the reporting year, the City will report a total Net Pension Liability of $32,408,820, Deferred Outflows of $248,790, and Deferred Inflows of $4,689,994. Consequently, the net impact on the City's Statement of Net Position would be $36,850,024 at the end of the reporting year. In addition, any contributions between the measurement date and the reporting date by the City would be reported as deferred outflows to match the cash outflow reported.

For the measurement year ending September 30, 2014, the Pension Expense is $7,065,837 or 18.07% of payroll. This amount is not expected to be the same as the City's contribution to the Plan ($15,825,184), but instead represents the change in the net impact on the City's Statement of Net Position plus employer contributions [36,850,024 - 45,609,371 + 15,825,184]. A breakdown of the Pension Expense is shown in this report.

CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB 67 and 68 for the Firefighters' Retirement Plan of the City of St. Louis (FRP). This report is for the use of the Plan, the City, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for the Firefighters' Retirement Plan of the City of St. Louis.

In preparing our report, we relied on information (some oral and some written) supplied by the staff of the Firefighters' Retirement Plan of the City of St. Louis. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The membership data, actuarial assumptions, and plan provisions are the same as described in the October 1, 2014 Actuarial Valuation Report for the Firefighters' Retirement Plan of the City of St. Louis.

Future reporting requirements may differ significantly from the current reporting requirement presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for the Firefighters' Retirement Plan of the City of St. Louis for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron

Stephen T. McElhaney, FSA, FCA, MAAA
Principal Consulting Actuary

Janet Cranna, FSA, FCA, MAAA
Principal Consulting Actuary

DETERMINATION OF DISCOUNT RATE

The discount rate as of September 30, 2014 is 7.625% which is the assumed long-term expected rate of return on System investments. Projections of the Plan's fiduciary net position have indicated that it is expected to be sufficient to make projected benefit payments for current Plan members following the procedures described in paragraphs 39 - 45 of GASB Statement 67.

PROJECTION OF TOTAL PENSION LIABILITY

The schedules of Required Supplementary Information generally start with one year of information as of the implementation of GASB 67, but eventually will need to build up to 10 years of information. The schedule below shows the changes in NPL and related ratios required by GASB.

Schedule of Changes in Net Pension Liability and Related Ratios	FYE 2014
Total Pension Liability	
Service Cost	$ 6,411,308
Interest	4,087,628
Change in Benefits	0
Change in Assumptions	0
Differences between Expected and Actual Experience	(5,359,993)
Benefit Payments	(132,992)
Net Change in Total Pension Liability	$ 5,005,951
Total Pension Liability – Beginning	$ 47,262,202
Total Pension Liability – Ending	$ 52,268,153
Plan Fiduciary Net Position	
Contributions – Employer	$ 15,825,184
Contributions – Employees	2,813,290
Net Investment Income	(92,382)
Benefit Payments	(132,992)
Administrative Expenses	(206,598)
Net Change in Plan Fiduciary Net Position	$ 18,206,502
Plan Fiduciary Net Position - Beginning	$ 1,652,831
Plan Fiduciary Net Position – Ending	$ 19,859,333
Net Pension Liability - Ending	$ 32,408,820
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	38.00%
Covered Employee Payroll	$ 39,102,123
Net Pension Liability as a Percentage of Covered Employee Payroll	82.88%

NOTE DISCLOSURES

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The table below shows the sensitivity of the NPL to the discount rate.

Sensitivity of Net Pension Liability to Changes in Discount Rate

	1% Decrease 6.625%	Discount Rate 7.625%	1% Increase 8.625%
Total Pension Liability	$ 58,872,340	$ 52,268,153	$ 46,457,687
Plan Fiduciary Net Position	19,859,333	19,859,333	19,859,333
Net Pension Liability	$ 39,013,007	$32,408,820	$ 26,598,354
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	33.7%	38.0%	42.7%

A one percent decrease in the discount rate increases the TPL by approximately 12.6% and increases the NPL by approximately 20.4%. A one percent increase in the discount rate decreases the TPL by approximately 11.1% and decreases the NPL by approximately 17.9%.

REQUIRED SUPPLEMENTARY INFORMATION

If an Actuarially Determined Contribution is calculated, the following schedule is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice.

Schedule of Employer Contributions	FYE 2014
Actuarially Determined Contribution	$ 8,942,435
Contributions in Relation to the Actuarially Determined Contribution	15,825,184
Contribution Deficiency / (Excess)	$ (6,882,749)
Covered Employee Payroll	$ 39,102,123
Contributions as a Percentage of Covered Employee Payroll	40.47%

Notes to Schedule

Valuation Date	October 1, 2013
Timing	Actuarially determined contributions are calculated based on the actuarial valuation at the beginning of the plan year.

Key Methods and Assumptions Used to Determine Contribution Rates

Actuarial Cost Method	Entry Age Normal Cost Method
Asset Valuation Method	Market value
Amortization Method	Closed 30-year level percent amortization of unfunded liability as of February 1, 2013
Discount Rate	7.625%
Inflation	3.00%
Salary Increases	Varies based on employee's years of service
Mortality	Sex distinct RP-2000 Combined Mortality projected to 2015 using Scale AA

A complete description of the methods and assumptions used to determine contribution rates for the year ending September 30, 2014 can be found in the October 1, 2013 actuarial valuation report.

EMPLOYER REPORTING AMOUNTS

The City is required to implement GASB 68 as of its reporting date of June 30, 2015.

The impact of experience gains or losses and assumption changes on the TPL are recognized in the Pension Expense over the average expected remaining service life of all active and inactive members of the Plan. As of the measurement date, this average was 8.44 years, which was rounded to 8.00 years for recognition purposes. During the measurement year, there was an experience gain of approximately $5.4 million. Approximately $0.7 million of that was recognized in the current year and identical amounts will be recognized in each of the next seven years, resulting in a Deferred Inflow of Resources of approximately $4.7 million.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of approximately $311 thousand. Approximately $62 thousand of that was recognized in the current year and identical amounts will be recognized in each of the next four years, resulting in a Deferred Outflow of Resources of approximately $249 thousand.

The table below summarizes the current balances of collective Deferred Outflows and Deferred Inflows of Resources along with the net recognition over the next five years.

	Deferred Outflow of Resources	Deferred Inflow of Resources
Differences between expected and actual experience	$ 0	$ 4,689,994
Changes in assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	248,790	0
Total	$ 248,790	$ 4,689,994

Amounts reported as deferred outflows and inflows of resources will be recognized in the pension expense as follows:

Year ended September 30:	
2015	$ (607,801)
2016	(607,801)
2017	(607,802)
2018	(607,802)
2019	(669,999)
Thereafter	(1,339,999)

EMPLOYER REPORTING AMOUNTS

The Pension Expense can be calculated two different ways. First, it is the change in the amounts reported on the City's Statement of Net Position that relate to the Plan and are not attributable to employer contributions. That is, it is the change in NPL plus the changes in deferred outflows and inflows plus employer contributions.

Alternatively, the Pension Expense can be calculated by its individual components. While GASB does not require or suggest the organization of the individual components shown in the table below, we believe it helps to understand the level and volatility of Pension Expense.

Calculation of Pension Expense	
Change in Net Pension Liability	$ (13,200,551)
Change in Deferred Outflows	(248,790)
Change in Deferred Inflows	4,689,994
Employer Contributions	15,825,184
Pension Expense	**$ 7,065,837**
Pension Expense as % of Payroll	**18.07%**
Operating Expenses	
Service cost	$ 6,411,308
Employee contributions	(2,813,290)
Administrative expenses	206,598
Total	$ 3,804,616
Financing Expenses	
Interest cost	$ 4,087,628
Expected return on assets	(218,606)
Total	$ 3,869,022
Changes	
Benefit changes	$ 0
Recognition of assumption changes	0
Recognition of liability gains and losses	(669,999)
Recognition of investment gains and losses	62,198
Total	$ (607,801)
Pension Expense	**$ 7,065,837**

EMPLOYER REPORTING AMOUNTS

First, there are components that we refer to as operating expenses. These items are directly attributable to the operation of the Plan during the measurement year. Service cost less employee contributions represents the increase in the employer-provided benefits attributable to the year, and administrative expenses are the cost of operating the Plan for the year.

Second, there are the financing expenses: the interest on the Total Pension Liability less the expected return on assets. Since the discount rate is equal to the long-term expected return on assets, the financing expense is just the interest on the Net Pension Liability, service cost, contributions, and administrative expenses.

The final category is changes. This category will drive most of the volatility in Pension Expense from year to year. It includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TPL, and investment gains or losses. For the first year, there is a gain recognized that offsets a large portion of the financing expense.

APPENDIX A
GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience gains on the Total Pension Liability, assumption changes reducing the Total Pension Liability, or investment gains that are recognized in future reporting periods.

4. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 68, these are experience losses on the Total Pension Liability, assumption changes increasing the Total Pension Liability or investment losses that are recognized in future reporting periods.

5. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 and 68 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

6. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the Plan.

APPENDIX A
GLOSSARY OF TERMS

7. Net Pension Liability

The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

8. Pension Expense

The economic cost of pensions that an entity recognizes during a reporting period.

9. Plan Fiduciary Net Position

The fair or market value of assets.

10. Reporting Date

The last day of the Plan or employer's fiscal year.

11. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67 and 68. The Service Cost is the normal cost calculated under the Entry Age Actuarial Cost Method.

12. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67 and 68. The Total Pension Liability is the actuarial liability calculated under the Entry Age Actuarial Cost Method.