Gabriel Roeder Smith & Company
Consultants & Actuaries

CITY OF RICHMOND HEIGHTS POLICEMEN'S AND FIREMEN'S RETIREMENT FUND

GASB STATEMENT NO. 68 EMPLOYER REPORTING ACCOUNTING SCHEDULES

JULY 1, 2013

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September 8, 2014

The Board of Trustees
Richmond Heights Policemen's and
Firemen's Retirement Fund
1330 S. Big Bend Boulevard
Richmond Heights, MO 63117

Dear Board Members:

The accounting schedules submitted in this report are required under the Governmental Accounting Standards Board (GASB) Statement No. 68 "Employer Reporting for Pension Plans."

Our actuarial calculations for this report were prepared for the purpose of complying with the requirements of GASB Statement No. 68. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 68. Our calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 68 may produce significantly different results. This report may be provided to parties other than the City of Richmond Heights Policemen's and Firemen's Retirement Fund only in its entirety and only with the permission of the City or the Board of Trustees.

This report is based upon information, furnished to us by the City of Richmond Heights Policemen's and Firemen's Retirement Fund, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but was not otherwise audited.

To the best of our knowledge, the information contained within this report is accurate and fairly represents the actuarial position of the City of Richmond Heights Policemen's and Firemen's Retirement Fund. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board. Brad Armstrong and Heidi Barry are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Brad Lee Armstrong

Heidi G Barry

Brad Lee Armstrong, ASA, EA, FCA, MAAA

Heidi Barry, ASA, MAAA

BLA/HB:ah

Auditor's Note – This information is presented in draft form for review by the Plan Sponsor's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the Plan Sponsor's financial statements.

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SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY
as of July 1, 2013

		2013
Actuarial Valuation Date		July 1, 2013
Measurement Date of the Net Pension Liability		July 1, 2013
Employer's Fiscal Year Ending Date (Reporting Date)		July 1, 2013
Membership		
Number of		
- Retirees and Beneficiaries		33
- Inactive, Nonretired Members		1
- Active Members		64
- Total		98
Covered Payroll	$	4,249,264
Net Pension Liability		
Total Pension Liability	$	34,593,578
Plan Fiduciary Net Position		37,692,676
Net Pension Liability	$	(3,099,098)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		108.96%
Net Pension Liability as a Percentage of Covered Payroll		(72.93)%
Development of the Single Discount Rate		
Single Discount Rate		7.50%
Long-Term Expected Rate of Investment Return		7.50%
Long-Term Municipal Bond Rate*		4.63%
Last year ending July 1 in the 2014 to 2113 projection period for which projected benefit payments are fully funded		N/A
Total Pension Expense	$	1,638,904

Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ -	$ 437,822
Changes in assumptions	-	-
Net difference between projected and actual earnings on pension plan investments	-	252,886
Total	$ -	$ 690,708

* Based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of June 27, 2013 (i.e., the weekly rate closest to but not later than the Measurement Date).

DISCUSSION

Accounting Standard

For state and local government employers (as well as certain non-employers) that contribute to a Defined Benefit (DB) pension plan administered through a trust or equivalent arrangement, Governmental Accounting Standards Board (GASB) Statement No. 68 establishes standards for pension accounting and financial reporting. Under Statement No. 68, the employer must account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information is not included in this report if it is not actuarial in nature, such as the notes to the financial statements regarding accounting policies and investments. As a result, the retirement system and/or plan sponsor is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state and local government employers that contribute to DB pension plans to recognize the net pension liability and the pension expense on their financial statements, along with the related deferred outflows of resources and deferred inflows of resources. The net pension liability is the difference between the total pension liability and the plan’s fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer’s contribution requirement).

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the certain changes in the liability and investment experience.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to pensions.

In addition, GASB Statement No. 68 requires the notes of the financial statements for the employers to include certain additional information, including:

- a description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs;
- the number and classes of employees covered by the benefit terms;
- for the current year, sources of changes in the net pension liability;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the single discount rate;
- certain information about mortality assumptions and the dates of experience studies;
- the date of the valuation used to determine the total pension liability;
- information about changes of assumptions or other inputs and benefit terms;
- the basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements;
- the total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability;
- the net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes; and
- a description of the system that administers the pension plan.

Required Supplementary Information

The financial statements of employers also include required supplementary information showing the 10-year fiscal history of:

- sources of changes in the net pension liability;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

While the first two tables may be built prospectively as the information becomes available, sufficient information is currently available for the third table.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the employer's prior fiscal year-end date. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of July 1, 2013 and a measurement date of July 1, 2013.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the plan's projected fiduciary net position is not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 4.63% (based on the weekly rate closest to but not later than the measurement date of the 20-Year Bond Buyer Index as published by the Federal Reserve); and the resulting single discount rate is 7.50%.

Effective Date and Transition

GASB Statement No. 68 is effective for an employer's fiscal years beginning after June 15, 2014; however, earlier application is encouraged by the GASB.

SECTION B

FINANCIAL STATEMENTS

PENSION EXPENSE UNDER GASB STATEMENT NO. 68

Fiscal Year Ended July 1, 2013

A. Expense

1. Service Cost	$ 2,122,615
2. Interest on the Total Pension Liability	2,455,355
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(249,523)
5. Projected Earnings on Plan Investments (made negative for addition here)	(2,612,088)
6. Pension Plan Administrative Expense	21,672
7. Other Changes in Plan Fiduciary Net Position	31,279
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	(67,185)
9. Recognition of Outflow (Inflow) of Resources due to Assets	(63,221)
10. Total Pension Expense	**$ 1,638,904**

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT REPORTING PERIOD

Fiscal Year Ended July 1, 2013

A. Outflows (Inflows) of Resources due to Liabilities	
1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$ (505,007)
2. Assumption Changes (gains) or losses	$ -
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	7.5167
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the Difference between expected and actual experience of the Total Pension Liability	$ (67,185)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	$ -
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities	$ (67,185)
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the Difference between expected and actual experience of the Total Pension Liability	$ (437,822)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes	$ -
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities	$ (437,822)
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$ (316,107)
2. Recognition period for Assets {in years}	5
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	$ (63,221)
3. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets	$ (252,886)

STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT AND PRIOR REPORTING PERIODS

Fiscal Year Ended July 1, 2013

A. Outflows and Inflows of Resources due to Liabilities and Assets to be recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	$ -	$ 67,185	$ (67,185)
2. Due to Assets	-	63,221	(63,221)
3. Total	$ -	$ 130,406	$ (130,406)

B. Outflows and Inflows of Resources by Source to be recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	$ -	$ 67,185	$ (67,185)
2. Assumption Changes	-	-	-
3. Net Difference between projected and actual earnings on pension plan investments	-	63,221	(63,221)
4. Total	$ -	$ 130,406	$ (130,406)

C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	$ -	$ 437,822	$ (437,822)
2. Assumption Changes	-	-	-
3. Net Difference between projected and actual earnings on pension plan investments	-	252,886	(252,886)
4. Total	$ -	$ 690,708	$ (690,708)

D. Deferred Outflows and Deferred Inflows of Resources by Year to be recognized in Future Pension Expenses

Year Ending July 1	Deferred Outflows of Resources
2014	$ (130,406)
2015	(130,406)
2016	(130,406)
2017	(130,406)
2018	(67,185)
Thereafter	(101,899)
Total	**$ (690,708)**

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS CURRENT PERIOD

Fiscal Year Ended July 1, 2013

A. Total pension liability	
1. Service Cost	$ 2,122,615
2. Interest on the Total Pension Liability	2,455,355
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	(505,007)
5. Changes of assumptions	0
6. Benefit payments, including refunds of employee contributions	(2,312,279)
7. Net change in total pension liability	$ 1,760,684
8. Total pension liability – beginning	32,832,894
9. Total pension liability – ending	**$ 34,593,578**
B. Plan fiduciary net position	
1. Contributions – employer	$ 1,988,982
2. Contributions – employee	249,523
3. Net investment income	2,928,195
4. Benefit payments, including refunds of employee contributions	(2,312,279)
5. Pension Plan Administrative Expense	(21,672)
6. Other	(31,279)
7. Net change in plan fiduciary net position	$ 2,801,470
8. Plan fiduciary net position – beginning	34,891,206
9. Plan fiduciary net position – ending	**$ 37,692,676**
C. Net pension liability	**$ (3,099,098)**
D. Plan fiduciary net position as a percentage of the total pension liability	**108.96%**
E. Covered-employee payroll	**$ 4,249,264**
F. Net pension liability as a percentage of covered employee payroll	**(72.93)%**

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS MULTIYEAR

ULTIMATELY 10 FISCAL YEARS WILL BE DISPLAYED

Fiscal year ending July 1,	**2013**
Total Pension Liability	
Service Cost	$ 2,122,615
Interest on the Total Pension Liability	2,455,355
Benefit Changes	-
Difference between Expected and Actual Experience	(505,007)
Assumption Changes	-
Benefit Payments	(2,312,279)
Refunds	-
Net Change in Total Pension Liability	1,760,684
Total Pension Liability - Beginning	32,832,894
Total Pension Liability - Ending (a)	$ 34,593,578
Plan Fiduciary Net Position	
Employer Contributions	$ 1,988,982
Employee Contributions	249,523
Pension Plan Net Investment Income	2,928,195
Benefit Payments	(2,312,279)
Refunds	-
Pension Plan Administrative Expense	(21,672)
Other	(31,279)
Net Change in Plan Fiduciary Net Position	2,801,470
Plan Fiduciary Net Position - Beginning	34,891,206
Plan Fiduciary Net Position - Ending (b)	$ 37,692,676
Net Pension Liability - Ending (a) - (b)	(3,099,098)
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	108.96 %
Covered Employee Payroll	$ 4,249,264
Net Pension Liability as a Percentage of Covered Employee Payroll	(72.93)%

Notes to Schedule:

N/A

SCHEDULE OF CONTRIBUTIONS MULTIYEAR

ULTIMATELY 10 FISCAL YEARS WILL BE DISPLAYED

FY Ending July 1,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2013	$ 2,031,294	$ 1,988,982	$ 42,312	$ 4,249,264	46.81%

NOTES TO SCHEDULE OF CONTRIBUTIONS

Valuation Date:

Notes	Actuarially determined contribution rates are calculated as of July 1 of odd numbered years, which is 18 months prior to the beginning of the fiscal year biennium in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Individual Entry Age Normal
Amortization Method	Level Percent, Open
Remaining Amortization Period	17 years
Asset Valuation Method	4-Year smoothed market; 20% corridor
Inflation	3.5%
Salary Increases	5% including inflation
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	1983 Group Annuity Mortality Table.

Other Information:

Notes	There were no benefit changes during the year.

SECTION C

CALCULATION OF THE SINGLE DISCOUNT RATE

CALCULATION OF THE SINGLE DISCOUNT RATE

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.50%; the municipal bond rate is 4.63% and the resulting single discount rate is 7.50%.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

SINGLE DISCOUNT RATE DEVELOPMENT
Projection of Contributions Ending July 1, 2013

Year	Payroll for Current Employees	Contributions from Current Employees	Service Cost and Expense Contributions	UAL Contributions	Total Contributions
0	$ 4,249,264				
1	4,270,451	$ 128,114	$ 849,026	$ (251,633)	$ 725,506
2	4,119,408	123,582	817,887	(260,440)	681,029
3	3,993,146	119,794	793,055	(269,556)	643,293
4	3,857,981	115,739	766,620	(278,990)	603,369
5	3,715,896	111,477	741,979	(288,755)	564,701
6	3,541,025	106,231	711,891	(298,861)	519,260
7	3,383,189	101,496	681,664	(309,321)	473,839
8	3,300,286	99,009	662,973	(320,148)	441,834
9	3,192,705	95,781	641,645	(331,353)	406,074
10	3,081,516	92,445	616,967	(342,950)	366,462
11	2,944,202	88,326	588,482	(354,953)	321,854
12	2,773,257	83,198	555,417	(367,377)	271,237
13	2,628,225	78,847	528,257	(380,235)	226,869
14	2,430,926	72,928	492,964	(393,543)	172,349
15	2,320,483	69,615	472,817	(407,317)	135,114
16	2,194,162	65,825	444,843	(421,573)	89,094
17	2,023,168	60,695	405,612	(436,328)	29,978
18	1,869,246	56,077	369,742	-	425,819
19	1,620,371	48,611	314,598	-	363,209
20	1,463,390	43,902	280,656	-	324,557
21	1,325,470	39,764	252,768	-	292,532
22	1,184,007	35,520	224,066	-	259,586
23	1,113,519	33,406	209,642	-	243,048
24	973,654	29,210	182,077	-	211,287
25	757,418	22,723	139,620	-	162,343
26	593,912	17,817	108,367	-	126,185
27	552,526	16,576	101,201	-	117,777
28	532,142	15,964	97,299	-	113,264
29	455,326	13,660	83,420	-	97,080
30	283,928	8,518	51,688	-	60,205
31	165,119	4,954	29,426	-	34,379
32	135,245	4,057	24,146	-	28,203
33	115,039	3,451	20,575	-	24,026
34	99,383	2,982	17,632	-	20,613
35	82,510	2,475	14,576	-	17,051
36	63,801	1,914	11,115	-	13,029
37	42,319	1,270	7,062	-	8,331
38	30,614	918	4,882	-	5,800
39	21,779	653	3,410	-	4,064
40	13,829	415	2,097	-	2,512
41	10,374	311	1,526	-	1,837
42	5,199	156	712	-	868
43	2,724	82	334	-	415
44	1,324	40	162	-	202
45	-	-	-	-	-
46	-	-	-	-	-
47	-	-	-	-	-
48	-	-	-	-	-
49	-	-	-	-	-
50	-	-	-	-	-

SINGLE DISCOUNT RATE DEVELOPMENT

Projection of Plan Fiduciary Net Position Ending July 1, 2013

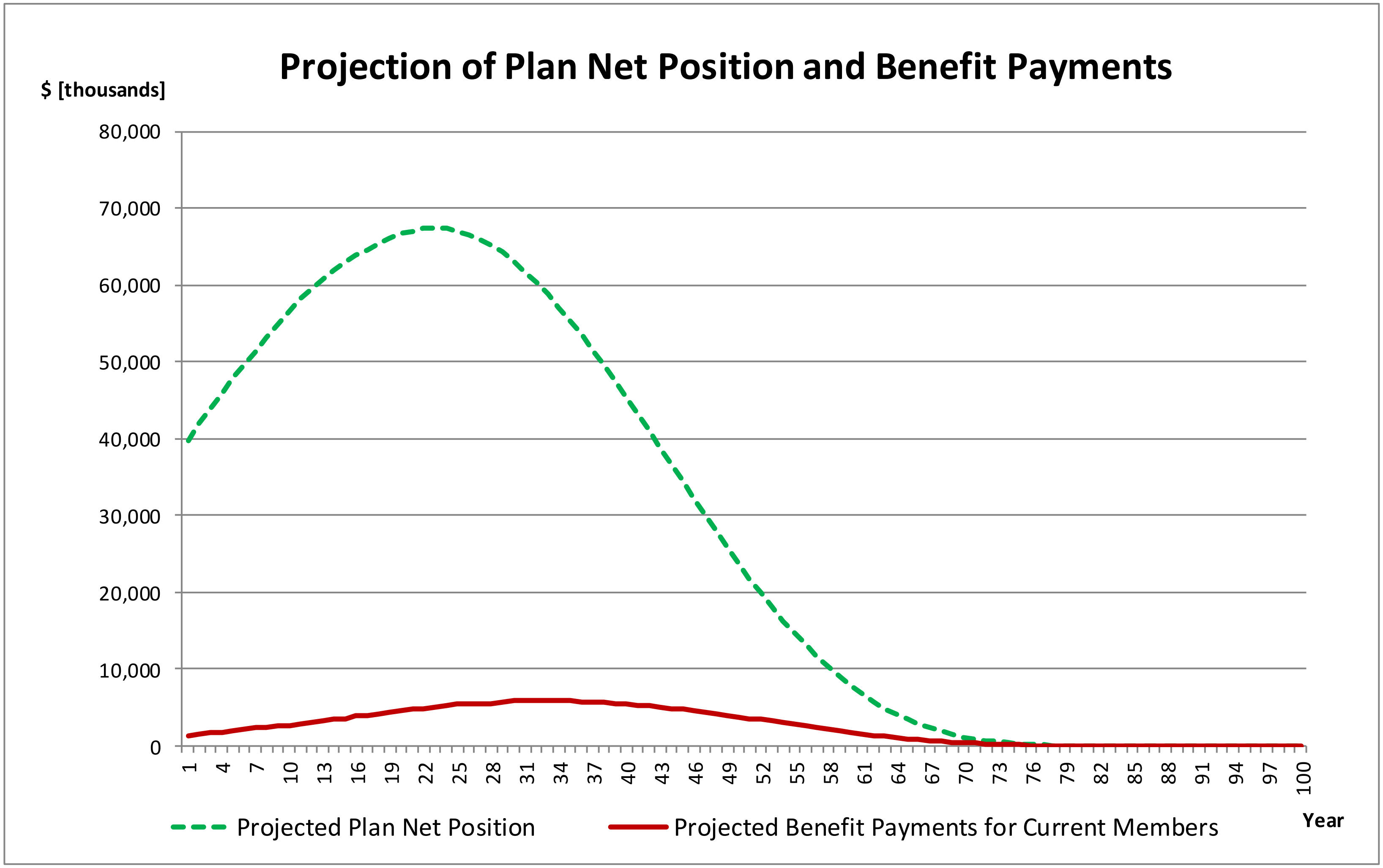
Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 7.50%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	$ 37,692,676	$ 725,506	$ 1,435,476	$ -	$ 2,800,808	$ 39,783,514
2	39,783,514	681,029	1,554,081	-	2,951,616	41,862,078
3	41,862,078	643,293	1,698,038	-	3,100,818	43,908,151
4	43,908,151	603,369	1,868,552	-	3,246,525	45,889,493
5	45,889,493	564,701	2,045,659	-	3,387,180	47,795,715
6	47,795,715	519,260	2,241,156	-	3,521,275	49,595,095
7	49,595,095	473,839	2,323,766	-	3,651,514	51,396,681
8	51,396,681	441,834	2,413,828	-	3,782,138	53,206,824
9	53,206,824	406,074	2,645,445	-	3,908,054	54,875,506
10	54,875,506	366,462	2,674,312	-	4,030,683	56,598,340
11	56,598,340	321,854	2,972,735	-	4,147,265	58,094,724
12	58,094,724	271,237	3,056,305	-	4,254,552	59,564,210
13	59,564,210	226,869	3,301,708	-	4,354,094	60,843,464
14	60,843,464	172,349	3,522,079	-	4,439,916	61,933,650
15	61,933,650	135,114	3,529,802	-	4,520,024	63,058,987
16	63,058,987	89,094	3,878,303	-	4,589,897	63,859,675
17	63,859,675	29,978	3,934,652	-	4,645,697	64,600,699
18	64,600,699	425,819	4,232,051	-	4,704,899	65,499,366
19	65,499,366	363,209	4,495,691	-	4,760,286	66,127,170
20	66,127,170	324,557	4,520,445	-	4,805,037	66,736,320
21	66,736,320	292,532	4,824,442	-	4,838,350	67,042,759
22	67,042,759	259,586	4,815,318	-	4,860,455	67,347,483
23	67,347,483	243,048	4,983,867	-	4,876,494	67,483,158
24	67,483,158	211,287	5,181,647	-	4,878,218	67,391,016
25	67,391,016	162,343	5,442,099	-	4,859,915	66,971,175
26	66,971,175	126,185	5,437,642	-	4,827,259	66,486,977
27	66,486,977	117,777	5,501,020	-	4,788,301	65,892,036
28	65,892,036	113,264	5,539,260	-	4,742,106	65,208,146
29	65,208,146	97,080	5,725,345	-	4,683,367	64,263,247
30	64,263,247	60,205	5,899,878	-	4,604,715	63,028,290
31	63,028,290	34,379	5,847,063	-	4,513,087	61,728,693
32	61,728,693	28,203	5,873,425	-	4,414,419	60,297,890
33	60,297,890	24,026	5,860,914	-	4,307,415	58,768,417
34	58,768,417	20,613	5,858,446	-	4,192,670	57,123,255
35	57,123,255	17,051	5,830,667	-	4,070,175	55,379,814
36	55,379,814	13,029	5,802,152	-	3,940,319	53,531,010
37	53,531,010	8,331	5,749,708	-	3,803,416	51,593,050
38	51,593,050	5,800	5,665,055	-	3,661,093	49,594,888
39	49,594,888	4,064	5,593,100	-	3,513,817	47,519,669
40	47,519,669	2,512	5,481,586	-	3,362,224	45,402,819
41	45,402,819	1,837	5,370,858	-	3,207,513	43,241,312
42	43,241,312	868	5,241,493	-	3,050,128	41,050,815
43	41,050,815	415	5,095,550	-	2,891,198	38,846,878
44	38,846,878	202	4,945,675	-	2,731,413	36,632,818
45	36,632,818	-	4,778,844	-	2,571,494	34,425,469
46	34,425,469	-	4,605,163	-	2,412,339	32,232,645
47	32,232,645	-	4,422,830	-	2,254,591	30,064,405
48	30,064,405	-	4,232,824	-	2,098,969	27,930,550
49	27,930,550	-	4,036,166	-	1,946,171	25,840,555
50	25,840,555	-	3,833,936	-	1,796,868	23,803,488

SINGLE DISCOUNT RATE DEVELOPMENT
Present Values of Projected Benefits Ending July 1, 2013
(Years 1-50)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
1	$ 37,692,676	$ 1,435,476	$ 1,435,476	$ -	$ 1,384,496	$ -	$ 1,384,496
2	39,783,514	1,554,081	1,554,081	-	1,394,315	-	1,394,315
3	41,862,078	1,698,038	1,698,038	-	1,417,184	-	1,417,184
4	43,908,151	1,868,552	1,868,552	-	1,450,693	-	1,450,693
5	45,889,493	2,045,659	2,045,659	-	1,477,390	-	1,477,390
6	47,795,715	2,241,156	2,241,156	-	1,505,655	-	1,505,655
7	49,595,095	2,323,766	2,323,766	-	1,452,237	-	1,452,237
8	51,396,681	2,413,828	2,413,828	-	1,403,275	-	1,403,275
9	53,206,824	2,645,445	2,645,445	-	1,430,628	-	1,430,628
10	54,875,506	2,674,312	2,674,312	-	1,345,339	-	1,345,339
11	56,598,340	2,972,735	2,972,735	-	1,391,129	-	1,391,129
12	58,094,724	3,056,305	3,056,305	-	1,330,452	-	1,330,452
13	59,564,210	3,301,708	3,301,708	-	1,337,004	-	1,337,004
14	60,843,464	3,522,079	3,522,079	-	1,326,737	-	1,326,737
15	61,933,650	3,529,802	3,529,802	-	1,236,880	-	1,236,880
16	63,058,987	3,878,303	3,878,303	-	1,264,185	-	1,264,185
17	63,859,675	3,934,652	3,934,652	-	1,193,072	-	1,193,072
18	64,600,699	4,232,051	4,232,051	-	1,193,721	-	1,193,721
19	65,499,366	4,495,691	4,495,691	-	1,179,614	-	1,179,614
20	66,127,170	4,520,445	4,520,445	-	1,103,357	-	1,103,357
21	66,736,320	4,824,442	4,824,442	-	1,095,402	-	1,095,402
22	67,042,759	4,815,318	4,815,318	-	1,017,052	-	1,017,052
23	67,347,483	4,983,867	4,983,867	-	979,210	-	979,210
24	67,483,158	5,181,647	5,181,647	-	947,041	-	947,041
25	67,391,016	5,442,099	5,442,099	-	925,250	-	925,250
26	66,971,175	5,437,642	5,437,642	-	859,993	-	859,993
27	66,486,977	5,501,020	5,501,020	-	809,317	-	809,317
28	65,892,036	5,539,260	5,539,260	-	758,087	-	758,087
29	65,208,146	5,725,345	5,725,345	-	728,887	-	728,887
30	64,263,247	5,899,878	5,899,878	-	698,704	-	698,704
31	63,028,290	5,847,063	5,847,063	-	644,139	-	644,139
32	61,728,693	5,873,425	5,873,425	-	601,901	-	601,901
33	60,297,890	5,860,914	5,860,914	-	558,715	-	558,715
34	58,768,417	5,858,446	5,858,446	-	519,516	-	519,516
35	57,123,255	5,830,667	5,830,667	-	480,979	-	480,979
36	55,379,814	5,802,152	5,802,152	-	445,234	-	445,234
37	53,531,010	5,749,708	5,749,708	-	410,428	-	410,428
38	51,593,050	5,665,055	5,665,055	-	376,172	-	376,172
39	49,594,888	5,593,100	5,593,100	-	345,483	-	345,483
40	47,519,669	5,481,586	5,481,586	-	314,972	-	314,972
41	45,402,819	5,370,858	5,370,858	-	287,079	-	287,079
42	43,241,312	5,241,493	5,241,493	-	260,618	-	260,618
43	41,050,815	5,095,550	5,095,550	-	235,685	-	235,685
44	38,846,878	4,945,675	4,945,675	-	212,793	-	212,793
45	36,632,818	4,778,844	4,778,844	-	191,270	-	191,270
46	34,425,469	4,605,163	4,605,163	-	171,459	-	171,459
47	32,232,645	4,422,830	4,422,830	-	153,182	-	153,182
48	30,064,405	4,232,824	4,232,824	-	136,373	-	136,373
49	27,930,550	4,036,166	4,036,166	-	120,965	-	120,965
50	25,840,555	3,833,936	3,833,936	-	106,887	-	106,887

SINGLE DISCOUNT RATE DEVELOPMENT
PVs of Projected Benefits Ending July 1, 2013
(Concluded) (Years 51-100)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
51	$ 23,803,488	$ 3,627,306	$ 3,627,306	$ -	$ 94,071	$ -	$ 94,071
52	21,827,878	3,417,510	3,417,510	-	82,447	-	82,447
53	19,921,620	3,205,783	3,205,783	-	71,943	-	71,943
54	18,091,914	2,993,340	2,993,340	-	62,489	-	62,489
55	16,345,247	2,781,509	2,781,509	-	54,016	-	54,016
56	14,687,211	2,571,699	2,571,699	-	46,457	-	46,457
57	13,122,358	2,365,202	2,365,202	-	39,746	-	39,746
58	11,654,241	2,163,258	2,163,258	-	33,816	-	33,816
59	10,285,395	1,967,076	1,967,076	-	28,604	-	28,604
60	9,017,292	1,777,733	1,777,733	-	24,047	-	24,047
61	7,850,397	1,596,159	1,596,159	-	20,085	-	20,085
62	6,784,243	1,423,228	1,423,228	-	16,659	-	16,659
63	5,817,428	1,259,794	1,259,794	-	13,717	-	13,717
64	4,947,552	1,106,543	1,106,543	-	11,208	-	11,208
65	4,171,330	963,910	963,910	-	9,082	-	9,082
66	3,484,777	832,186	832,186	-	7,294	-	7,294
67	2,883,307	711,619	711,619	-	5,802	-	5,802
68	2,361,732	602,395	602,395	-	4,569	-	4,569
69	1,914,286	504,525	504,525	-	3,560	-	3,560
70	1,534,754	417,837	417,837	-	2,742	-	2,742
71	1,216,638	342,012	342,012	-	2,088	-	2,088
72	953,280	276,578	276,578	-	1,571	-	1,571
73	738,013	220,934	220,934	-	1,167	-	1,167
74	564,294	174,330	174,330	-	857	-	857
75	425,867	135,869	135,869	-	621	-	621
76	316,935	104,582	104,582	-	445	-	445
77	232,272	79,462	79,462	-	314	-	314
78	167,304	59,525	59,525	-	219	-	219
79	118,136	43,871	43,871	-	150	-	150
80	81,510	31,717	31,717	-	101	-	101
81	54,738	22,404	22,404	-	66	-	66
82	35,615	15,387	15,387	-	42	-	42
83	22,332	10,216	10,216	-	26	-	26
84	13,415	6,515	6,515	-	16	-	16
85	7,667	3,962	3,962	-	9	-	9
86	4,133	2,280	2,280	-	5	-	5
87	2,079	1,228	1,228	-	2	-	2
88	962	610	610	-	1	-	1
89	401	275	275	-	-	-	-
90	147	109	109	-	-	-	-
91	45	36	36	-	-	-	-
92	10	9	9	-	-	-	-
93	1	1	1	-	-	-	-
94	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-
97	-	-	-	-	-	-	-
98	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-
				Totals	$ 42,850,210	$ -	$ 42,850,210


Projection of Plan Net Position and Benefit Payments
$ [thousands]
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67 70 73 76 79 82 85 88 91 94 97 100
Year
Projected Plan Net Position
Projected Benefit Payments for Current Members

SECTION D

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability".
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

GLOSSARY OF TERMS

Amortization Payment The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.

Amortization Method The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be “open” (meaning, reset each year) or “closed” (the number of years remaining will decline each year.

Cost-of-Living Adjustments Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan) A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

Covered-Employee Payroll The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.

Deferred Retirement Option Program (DROP) A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.

Deferred Inflows and Outflows The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.

Discount Rate For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:

1. The benefit payments to be made while the pension plans’ fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period and;
2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

GLOSSARY OF TERMS

Entry Age Actuarial Cost Method (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Fiduciary Net Position	The fiduciary net position is the market value of the assets of the trust on an accrual basis.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
Non-employer Contribution Entities	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.
Normal Cost	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

GLOSSARY OF TERMS

Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Expense	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: 1. Service Cost 2. Interest on the Total Pension Liability 3. Current-Period Benefit Changes 4. Employee Contributions (made negative for addition here) 5. Projected Earnings on Plan Investments (made negative for addition here) 6. Pension Plan Administrative Expense 7. Other Changes in Plan Fiduciary Net Position 8. Recognition of Outflow (Inflow) of Resources due to Liabilities 9. Recognition of Outflow (Inflow) of Resources due to Assets
Total Pension Liability (TPL)	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 67, the valuation asset is equal to the market value of assets.

GRS

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September 8, 2014

Ms. Sara Fox
Finance Director
Richmond Heights Policemen's and
Firemen's Retirement Fund
1330 S. Big Bend Boulevard
Richmond Heights, MO 63117

Dear Sara:

Please find enclosed **??** copies of the GASB No. 68 Employer Reporting Accounting Schedules report of the City of Richmond Heights Policemen's and Firemen's Retirement Fund.

We will be happy to meet with the Board to discuss the results of this report.

Sincerely,

Brad Lee Armstrong
ASA, EA, FCA, MAAA

BLA:ah
Enclosures