## CITY OF PENSACOLA FIREFIGHTERS' RELIEF AND PENSION FUND

### ACTUARIAL VALUATION AND REPORT AS OF OCTOBER 1, 2015

CONTRIBUTIONS APPLICABLE TO THE PLAN/ FISCAL YEAR ENDED SEPTEMBER 30, 2017



May 23, 2016

Board of Trustees City of Pensacola Firefighters' Relief and Pension Fund 222 West Main Street Pensacola, FL 32502

Re: City of Pensacola

Firefighters' Relief and Pension Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Pensacola Firefighters' Relief and Pension Fund. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Chapters 112, and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Board of Trustees, financial reports prepared by the custodian banks and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Pensacola, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Pensacola Firefighters' Relief and Pension Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By:

Jason L. Franken

Enrolled Actuary #14-06888

JLF/lke Enclosures

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#### SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Pensacola Firefighters' Relief and Pension Fund, performed as of October 1, 2015, has been completed, and the results are presented in this Report. The results of this valuation are applicable to the plan/fiscal year ended September 30, 2017.

The contribution requirements developed in this valuation, compared with amounts developed in the September 24, 2015 actuarial impact statement, are as follows:

Valuation Date Applicable Plan/Fiscal Year End	10/1/2015 9/30/2017	10/1/2014 9/30/2016
Total Required Contribution	2,826,744	4,312,986
Member Contributions (Est.)	504,862	490,506
City and State Required Contribution	2,321,882	3,822,480
State Contribution	698,091	698,091
Balance from City*	1,623,791	3,124,389

<sup>\*</sup> As requested by the Division of Retirement, the required contribution from the combination of City and State sources for the year ending September 30, 2016 is \$3,822,480. The City has a prepaid contribution of \$689,812.57 available to offset the current year's requirements. The City and State contribution for the fiscal year ending September 30, 2017 is \$2,321,882 based on the City's policy of contributing on October 1<sup>st</sup>. This approach saves approximately \$90,000 over the prior approach of contributing uniformly throughout the year.

The Plan experience was favorable overall during the last 12 months, relative to the actuarial assumptions. The only significant component of favorable experience was the effect of there being no COLA during the year, given that a 2.875% COLA was assumed in the prior valuation. The favorable experience was offset in part by a 7.54% investment return (Actuarial Asset Basis) which fell short of the 8.00% assumption, more retirements occurring than expected, and less than anticipated inactive mortality.

As can be seen, the Required Contribution from City and State sources has decreased considerably since the actuarial impact statement was performed. The net favorable actuarial experience contributed to the decrease, but another significant reason for the decrease is the elimination of nearly \$2.2 million of amortization payments. These amortization payments were associated with amortization bases created in

1975 and 1985 which have been fully funded. Without elimination of these amortization payments, the Required City and State Contribution would have increased only slightly prior to the change in actuarial assumptions made in conjunction with this valuation. The change in assumptions caused the Required City and State Contribution to increase by approximately \$831,000.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By:

Jason L. Franken, FSA, EA, MAAA

Bv:

Tyler A. Koftan

#### Plan Changes Since Prior Valuation

There following plan changes were made since the prior valuation:

- 1. COLA for those retiring after June 10, 2015:
  - a. Employees who retire or enter DROP after June 10, 2015 will receive a maximum COLA of 2.0%.
  - b. Employees hired after June 10, 2015 will receive a maximum COLA of 1.25%.
- 2. Employees hired after June 10, 2015 spousal benefits shall be determined in conformity with those spousal benefits offered to Special Risk class members in the Florida Retirement System
- 3. Overtime
  - a. Vested employees on June 10, 2015 maximum 300 hours of overtime pensionable
  - b. Non-vested employees on June 10, 2015 maximum 200 hours of overtime pensionable
  - c. Employees hired after June 10, 2015 no overtime pensionable
- 4. Average Final Compensation
  - a. Employees with 20 or more years of service on June 10, 2015 will remain the same (highest 2 of the last 5 years)
  - b. Employees with less than 20 years of service on June 10, 2015 will be an average of the last 5 years of credited service
- 5. DROP participants entering DROP after June 10, 2015:
  - a. Interest rate will be 1.3%
  - b. No Cost-of-Living Adjustment (COLA) while in DROP

#### Actuarial Assumption/Method Changes Since Prior Valuation

The following changes were made since the prior valuation:

- As approved at the October 21, 2015 Board Meeting, we have employed the special risk mortality tables reflected in the Florida Retirement System Actuarial Valuation as of July 1, 2014.
- 2. The assumed rate of investment return was reduced from 8.00% to 7.75% in conjunction with this valuation.

#### COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump 10/1/2015	Old Assump <u>10/1/2015</u>	10/1/2014
A. Participant Data			
Number Included			
Actives	86	86	89
Service Retirees	73	73	74
DROP Retirees	30	30	24
Beneficiaries	33	33	34
Disability Retirees	55	55	56
Terminated Vested	<u>3</u>	<u>3</u>	<u>0</u>
Total	280	280	277
Total Annual Payroll	\$4,277,804	\$4,277,804	\$4,259,114
Payroll Under Assumed Ret. Age	4,277,804	4,277,804	4,167,033
Annual Rate of Payments to:			
Service Retirees	3,839,002	3,839,002	3,876,944
DROP Retirees	1,599,109	1,599,109	1,255,460
Beneficiaries	938,601	938,601	930,339
Disability Retirees	1,762,607	1,762,607	1,803,877
Terminated Vested	31,115	31,115	0
B. Assets			
Actuarial Value <sup>1</sup>	110,711,895	110,711,895	104,901,428
Market Value <sup>1</sup>	108,697,588	108,697,588	112,540,740
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	27,042,732	25,535,544	26,743,411
Disability Benefits	2,751,383	2,562,338	2,395,898
Death Benefits	835,203	272,865	253,811
Vested Benefits	465,649	439,143	403,320
Refund of Contributions	66,311	66,037	58,394
Service Retirees	49,165,228	46,101,203	47,127,160
DROP Retirees <sup>1</sup>	30,337,492	28,873,389	22,562,124
Beneficiaries	9,231,448	8,348,575	8,298,098
Disability Retirees	20,120,027	18,153,854	18,994,941
Terminated Vested	270,028	256,112	0
Excess State Monies Reserve	<u>0</u>	<u>0</u>	<u>0</u>
Total	140,285,501	130,609,060	126,837,157

C. Liabilities - (Continued)	New Assump 10/1/2015	Old Assump 10/1/2015	10/1/2014
Present Value of Future Salaries	47,804,780	47,559,641	42,450,952
D			
Present Value of Future	5 250 524	5 221 561	4.550.505
Member Contributions	5,258,526	5,231,561	4,669,605
Normal Cost (Retirement)	1,032,372	973,252	960,928
Normal Cost (Disability)	181,214	169,390	169,424
Normal Cost (Death)	57,729	18,583	18,219
Normal Cost (Vesting)	25,490	24,096	23,416
Normal Cost (Refunds)	<u>13,554</u>	<u>13,551</u>	<u>11,835</u>
Total Normal Cost	1,310,359	1,198,872	1,183,822
Present Value of Future			
Normal Costs	14,275,866	12,983,217	11,603,562
Accrued Liability (Retirement)	15,466,007	14,702,783	17,096,645
Accrued Liability (Rethellellt) Accrued Liability (Disability)	976,182	913,568	885,905
Accrued Liability (Death)	239,958	82,237	81,065
Accrued Liability (Vesting)	200,291	191,129	
• \	,	*	185,744
Accrued Liability (Refunds)	2,974	2,993	1,913
Accrued Liability (Inactives) <sup>1</sup>	109,124,223	101,733,133	96,982,323
Excess State Monies Reserve	<u>0</u>	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability	126,009,635	117,625,843	115,233,595
Unfunded Actuarial Accrued			
Liability (UAAL)	15,297,740	6,913,948	10,332,167
Funded Ratio (AVA / AL)	87.9%	94.1%	91.0%
D. Actuarial Present Value of Accrued Benefits	:		
Vested Accrued Benefits			
Inactives <sup>1</sup>	109,124,223	101,733,133	96,982,323
Actives	4,499,696	3,915,059	5,488,513
Member Contributions	3,778,987	<u>3,778,987</u>	4,262,025
Total	117,402,906	109,427,179	106,732,861
Non-vested Accrued Benefits	3,786,467	<u>3,541,936</u>	4,364,317
Total Present Value Accrued Benefits	121,189,373	112,969,115	111,097,178
Funded Ratio (MVA / PVAB)	89.7%	96.2%	101.3%
Increase (Decrease) in Present Value of			
Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	8,220,258	0	
New Accrued Benefits	0	44,020	
Benefits Paid	0	(6,788,324)	
Interest	0	8,616,241	
Other	<u>0</u>	<u>0</u>	
Total	8,220,258	1,871,937	

Valuation Date Applicable to Fiscal Year Ending	New Assump 10/1/2015 9/30/2017	Old Assump 10/1/2015 9/30/2017	10/1/2014 9/30/2016
E. Pension Cost			
Normal Cost <sup>2</sup>	\$1,405,884	\$1,286,270	\$1,266,808
Administrative Expenses <sup>2</sup>	99,588	99,588	92,632
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years			
(as of $10/1/2015$ ) <sup>2</sup>	1,321,272	610,111	2,953,546
Total Required Contribution	2,826,744	1,995,969	4,312,986
Expected Member Contributions <sup>2</sup>	504,862	504,862	490,506
Expected City & State Contribution	2,321,882	1,491,107	3,822,480
F. Past Contributions			
Plan Years Ending:	9/30/2015		
City and State Requirement	4,334,264		
Actual Contributions Made:			
Members (excluding buyback) City State Total	474,193 3,636,173 <u>698,091</u> 4,808,457		
G. Net Actuarial (Gain)/Loss	(488,184)		

<sup>&</sup>lt;sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2015 and 9/30/2014.

<sup>&</sup>lt;sup>2</sup> Contributions developed as of 10/1/2015 displayed above have been adjusted to account for assumed salary increases.

#### H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

	Projected Unfunded
<u>Year</u>	Accrued Liability
2015	15,297,740
2016	15,227,273
2017	14,906,252
2024	14,178,576
2031	7,053,122
2038	2,440,211
2045	0

## I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		<u>Actual</u>	Assumed
Year Ended	9/30/2015	11.22%	7.16%
Year Ended	9/30/2014	5.98%	6.86%
Year Ended	9/30/2013	-4.15%	6.62%

#### (ii) 3 Year Comparison of Investment Return on Actuarial Value

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2015	7.54%	8.00%
Year Ended	9/30/2014	9.02%	8.00%
Year Ended	9/30/2013	8.64%	8.00%

#### (iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2015	\$4,277,804
	10/1/2005	4,994,112
(b) Total Increase		-14.34%
(c) Number of Years		10.00
(d) Average Annual Rate		-1.54%

#### STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Jason L. Franken, FSA, EA, MAAA Enrolled Actuary #14-6888

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman Bureau of Local Retirement Systems Post Office Box 9000 Tallahassee, FL 32315-9000

Ms. Sarah Carr Municipal Police and Fire Pension Trust Funds Division of Retirement Post Office Box 3010 Tallahassee, FL 32315-3010

#### RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2014	\$10,332,167
(2)	Sponsor Normal Cost developed as of October 1, 2014	725,448
(3)	Expected administrative expenses for the year ended September 30, 2015	86,564
(4)	Expected interest on (1), (2) and (3)	888,072
(5)	Sponsor contributions to the System during the year ended September 30, 2015	4,334,264
(6)	Expected interest on (5)	295,855
(7)	Expected Unfunded Actuarial Accrued Liability as of	
(,)	September 30, 2015 (1)+(2)+(3)+(4)-(5)-(6)	7,402,132
(8)	Change to UAAL due to Assumption Change	8,383,792
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(488,184)
(10)	Unfunded Accrued Liability as of October 1, 2015	15,297,740

Type of	Date	Years	10/1/2015	Amortization
<u>Base</u>	<b>Established</b>	Remaining	<u>Amount</u>	Amount
Assump Change	10/1/1986	1	(\$227,464)	(\$227,464)
Plan Change	10/1/1987	2	471,898	244,751
Method Change	10/1/1994	9	(724,699)	(106,549)
Assump Change	10/1/1994	9	(4,572,538)	(672,278)
Assump Change	10/1/1999	14	(3,305,357)	(366,707)
Plan Change	10/1/1999	14	9,475,917	1,051,288
Plan Change	10/1/2001	16	157,310	16,231
Plan Change	10/1/2001	16	72,894	7,521
Method Change	10/1/2005	20	6,756,332	626,817
Actuarial Gain	10/1/2006	21	(56,666)	(5,150)
Assump Change	10/1/2006	21	1,388,130	126,153
Actuarial Gain	10/1/2007	22	(2,930,179)	(261,341)
<b>Actuarial Loss</b>	10/1/2008	23	5,177,235	453,918
Actuarial Gain	10/1/2009	24	(5,906,256)	(509,806)
<b>Actuarial Loss</b>	10/1/2010	25	695,905	59,216
<b>Actuarial Loss</b>	10/1/2011	26	5,251,747	441,073
Assump Change	10/1/2011	26	(328,388)	(27,580)
<b>Actuarial Loss</b>	10/1/2012	27	4,446,549	368,998
Actuarial Gain	10/1/2013	28	(3,893,698)	(319,585)

Type of	Date	Years	10/1/2015	Amortization
<u>Base</u>	<b>Established</b>	Remaining	<u>Amount</u>	<u>Amount</u>
Actuarial Gain	10/1/2014	29	(855,639)	(69,523)
Benefit Change	10/1/2014	29	(3,690,901)	(299,895)
Actuarial Gain	10/1/2015	30	(488,184)	(39,300)
Assump Change	10/1/2015	30	8,383,792	<u>674,910</u>
			15,297,740	1,165,698
Maximum of 30 Ye	ear Amortization lual Amortization			
no Less Than A	dministrative Ex	penses		1,231,496

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2014	\$10,332,167
(2) Expected UAAL as of October 1, 2015	7,402,132
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	479,734
Salary Increases	276,433
Active Decrements	826,459
Inactive Mortality	543,524
COLAs Lower Than Expected	(2,624,698)
Other	10,364
Increase in UAAL due to (Gain)/Loss	(488,184)
Assumption Changes	8,383,792
(4) Actual UAAL as of October 1, 2015	\$15,297,740

## PROJECTED UNFUNDED ACTUARIAL ACCRUED LIABILITY

	Expected			
			Amortization	Expected UAAL
Plan Year	Fiscal Year	Expected UAAL	Payment UAAL	on 9/30
9/30/2015	9/30/2017	15,297,740	1,231,496	15,227,273
9/30/2016	9/30/2018	15,227,273	1,393,162	14,906,252
9/30/2017	9/30/2019	14,906,252	1,148,411	14,824,073
9/30/2018	9/30/2020	14,824,073	1,148,411	14,735,526
9/30/2019	9/30/2021	14,735,526	1,148,411	14,640,115
9/30/2020	9/30/2022	14,640,115	1,148,411	14,537,313
9/30/2021	9/30/2023	14,537,313	1,148,411	14,426,544
9/30/2022	9/30/2024	14,426,544	1,148,411	14,307,188
9/30/2023	9/30/2025	14,307,188	1,148,416	14,178,576
9/30/2024	9/30/2026	14,178,576	1,927,238	13,200,816
9/30/2025	9/30/2027	13,200,816	1,927,238	12,147,281
9/30/2026	9/30/2028	12,147,281	1,927,238	11,012,096
9/30/2027	9/30/2029	11,012,096	1,927,238	9,788,935
9/30/2028	9/30/2030	9,788,935	1,927,256	8,470,959
9/30/2029	9/30/2031	8,470,959	1,242,657	7,788,495
9/30/2030	9/30/2032	7,788,495	1,242,674	7,053,122
9/30/2031	9/30/2033	7,053,122	1,218,905	6,286,368
9/30/2032	9/30/2034	6,286,368	1,218,905	5,460,190
9/30/2033	9/30/2035	5,460,190	1,218,905	4,569,985
9/30/2034	9/30/2036	4,569,985	1,218,887	3,610,808
9/30/2035	9/30/2037	3,610,808	592,100	3,252,657
9/30/2036	9/30/2038	3,252,657	471,089	2,997,139
9/30/2037	9/30/2039	2,997,139	732,443	2,440,211
9/30/2038	9/30/2040	2,440,211	278,480	2,329,267
9/30/2039	9/30/2041	2,329,267	788,297	1,660,395
9/30/2040	9/30/2042	1,660,395	729,125	1,003,444
9/30/2041	9/30/2043	1,003,444	315,596	741,156
9/30/2042	9/30/2044	741,156	(53,386)	856,120
9/30/2043	9/30/2045	856,120	266,171	635,670
9/30/2044	9/30/2046	635,670	635,670	0

#### ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rates Healthy Lives:

Female: RP2000 Generational, 100% Annuitant White

Collar, Scale BB

**Male:** RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

Disabled Lives:

**Female:** 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no

projection scale

Male: 60% RP2000 Disabled Male setback four years /

40% Annuitant White Collar with no setback, no

projection scale

The above stated mortality rates are required by law,

effective October 1, 2016 and have been early

implemented in conjunction with this actuarial valuation.

<u>Termination Rates</u> See Table 1 below. This is supported by the results of

an experience study for the period 2006 – 2011.

<u>Disability Rates</u> See Table 2 below. 66.7% of disabilities are assumed to

be In Line of Duty (ILOD). This is based on an

experience study performed in 2011.

Assumed Retirement Age See Table 3 below. In addition to this table, 75% of

members with 25 or more years of service are assumed to retire. This is based on an experience study for the

period 2006 - 2011.

<u>Interest Rate</u> 7.75% per year, compounded annually, net of investment

related expenses. This is supported by the target asset allocation of the trust and the expected long-term return

by asset class.

<u>Salary Increases</u> See Table 4 below. This is based on an experience study

for the period 2006 - 2011.

<u>Cost-of-Living Adjustment</u> 1.25% for those hired on or after June 20, 2015.

2.00% for those retiring after June 10, 2015 and hired

before that date.

2.875% per year for those retiring prior to June 10, 2015.

Payroll Growth None.

Administrative Expenses \$92,821 annually. This is equal to the actual non-

investment-related expenses paid out of the trust during the year.

100% are assumed married with husbands 3 years older

than wives.

Actuarial Asset Method All assets are valued at market value with an adjustment

> made to uniformly spread actuarial investment gains and losses (as measured by actual actuarial value investment return against expected actuarial value investment

return) over a five-year period.

Funding Method Entry Age Normal Actuarial Cost Method. A load based

> on the salary increase at the current 7.29% assumption is used to develop the dollar funding requirements. There

is no interest adjustment to reflect the October 1<sup>st</sup> deposit.

Marriage

<u>Table 1: Termination Table</u>

Years of Service	<u>Termination Rates</u>
1	3.25%
2	3.00%
3	2.75%
4	2.50%
5	2.25%
6	2.00%
7	1.75%
8	1.50%
9	1.25%
10	1.00%
11+	0.50%

## Table 2: Disability Table

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66666

## Table 3: Retirement Table

<u>Age</u>	Retirement Rates
50	5%
51	10%
52 - 55	25%
56	100%

## Table 4: Salary Increase Table

<u>Age</u>	Increase Rates
20	12.68%
25	11.09%
30	8.55%
35	6.73%
40	6.09%
45	5.64%
50	5.32%
55	5.00%

#### **VALUATION NOTES**

<u>Total Annual Payroll</u> is the projected annual rate of pay as of the valuation date for all covered Members.

<u>Present Value of Benefits</u> is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

<u>Total Required Contribution</u> is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

<u>Entry Age Normal Cost Method</u> - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals
  - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
  - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d	Under this method, the entry age used for each active participant is the participant's age at the time
	he or she would have commenced participation if the plan had always been in existence under
	current terms, or the age as of which he or she first earns service credits for purposes of benefit
	accrual under the current terms of the plan.

#### PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During <u>Fiscal Year</u>	<u>Amount</u>	Increase from Previous Year
1998	435,288.82	%
1999	446,175.43	2.5%
2000	430,632.86	-3.5%
2001	398,542.75	-7.5%
2002	467,483.17	17.3%
2003	426,820.13	-8.7%
2004	587,798.91	37.7%
2005	579,685.92	-1.4%
2006	674,181.18	16.3%
2007	766,923.14	13.8%
2008	799,134.89	4.2%
2009	530,169.21	-33.7%
2010	638,919.66	20.5%
2011	635,647.22	-0.5%
2012	667,019.50	4.9%
2013	666,509.03	-0.1%
2014	742,106.25	11.3%
2015	698,091.40	-5.9%

#### RECENT COMPENSATION AND INVESTMENT EXPERIENCE

	Compe	nsation		Investment Return	*
Valuation	% Increase	Assumed	Market	Actuarial	
Date	(Decrease)	Increase	Value	Value	Assumed
10/1/2015	11.22%	7.16%	(1.56%)	7.54%	8.00%
10/1/2014	5.98%	6.86%	10.49%	9.02%	8.00%
10/1/2013	(4.15%)	6.62%	13.88%	8.64%	8.00%
10/1/2012	6.19%	6.58%	18.62%	3.40%	8.00%
10/1/2011	6.55%	7.28%	(2.24%)	2.93%	8.00%
10/1/2010	0.94%	7.50%	10.19%	5.09%	8.00%
10/1/2009	(0.49%)	7.50%	6.71%	5.13%	8.00%
10/1/2008	12.80%	7.70%	(13.30%)	5.70%	8.00%
10/1/2007	6.30%	7.20%	14.50%	11.10%	8.00%
10/1/2006	1.60%	5.90%	9.20%	7.30%	8.00%
Last 5 Years	5.03%	6.90%	7.51%	6.27%	8.00%
Last 10 Years	4.58%	7.03%	6.23%	6.56%	8.00%

<sup>\*</sup>Computed as 2I/(A+B-I), where A is beginning value, B is ending value and I is investment return

# STATEMENT OF FIDUCIARY NET POSITION SEPTEMBER 30, 2015

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	266,631.33	266,631.33
Checking Account	231,656.53	231,656.53
Money Market	2,351,484.75	2,351,484.75
Cash	312.24	312.24
Total Cash and Equivalents	2,850,084.85	2,850,084.85
Receivables:		
Member Contributions in Transit	20,865.52	20,865.52
City Contributions in Transit	189.60	189.60
From General Fund	17,620.00	17,620.00
Investment Income	314,815.02	314,815.02
Total Receivable	353,490.14	353,490.14
Investments:		
U. S. Bonds and Bills	2,048,344.29	2,063,021.33
Federal Agency Guaranteed Securities	5,055,052.86	5,158,215.44
Fixed Income	18,760,961.85	18,493,840.69
Municipal Obligations	3,308,476.50	3,320,977.85
Equities	57,747,530.25	60,952,793.34
Mutual Funds:		
Equity	3,396,689.60	6,246,663.82
Pooled/Common/Commingled Funds:		
Master Limited Partnership	2,660,305.95	1,782,973.66
Partnerships	2,251,726.82	1,647,389.05
Real Estate	5,430,288.92	6,673,285.91
Total Investments	100,659,377.04	106,339,161.09
Total Assets	103,862,952.03	109,542,736.08
LIABILITIES		
Payables:		
Investment Expenses	148,196.81	148,196.81
Administrative Expenses	7,138.68	7,138.68
Prepaid City Contribution	689,812.57	689,812.57
Total Liabilities	845,148.06	845,148.06
NET POSITION RESTRICTED FOR PENSIONS	103,017,803.97	108,697,588.02

#### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED SEPTEMBER 30, 2015 Market Value Basis

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 Member
 474,193.23

 City
 3,636,172.60

 State
 698,091.40

Total Contributions 4,808,457.23

**Investment Income:** 

Net Realized Gain (Loss) 7,365,984.65 Unrealized Gain (Loss) (11,264,811.48)

Net Increase in Fair Value of Investments (3,898,826.83)
Interest & Dividends 2,840,292.57
Less Investment Expense<sup>1</sup> (711,930.45)

Net Investment Income (1,770,464.71)

Total Additions 3,037,992.52

**DEDUCTIONS** 

Distributions to Members:

Benefit Payments6,585,388.14Lump Sum DROP Distributions189,590.51Refunds of Member Contributions13,345.34

Total Distributions 6,788,323.99

Administrative Expense 92,820.68

Total Deductions 6,881,144.67

Net Increase in Net Position (3,843,152.15)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 112,540,740.17

End of the Year 108,697,588.02

<sup>&</sup>lt;sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

#### CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS SEPTEMBER 30, 2015 Actuarial Asset Basis

#### **REVENUES**

Contributions:		
Member	474,193.23	
City	3,636,172.60	
State	698,091.40	
Total Contributions		4,808,457.23
Earnings from Investments:		
Interest & Dividends	2,840,292.57	
Net Realized Gain (Loss)	7,365,984.65	
Change in Actuarial Value	(1,611,192.48)	
	,	
Total Earnings and Investment Gains		8,595,084.74
	EXPENDITURES	
Distributions to Members:	EM ENDITORES	
Benefit Payments	6,585,388.14	
Lump Sum DROP Distributions	189,590.51	
Refunds of Member Contributions	13,345.34	
Total Distributions		6,788,323.99
Evmanage		
Expenses:	711 020 45	
Investment related <sup>1</sup>	711,930.45	
Administrative	92,820.68	
Total Expenses		804,751.13
Change in Net Assets for the Year		5,810,466.85
Net Assets Beginning of the Year		104,901,428.17
-		
Net Assets End of the Year <sup>2</sup>		110,711,895.02

<sup>&</sup>lt;sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees. <sup>2</sup>Net Assets may be limited for actuarial consideration.

#### ACTUARIAL ASSET VALUATION September 30, 2015

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year	<u>(</u>	Gains/(Losses)   An			y Valuation Year	
Ending	Gain/(Loss)	2015	2016	2017	2018	2019
00/20/2011	(0.520.060)	0	0	0	0	
09/30/2011	(9,539,860)	0	0	0	0	
09/30/2012	7,864,114	1,572,823	0	0	0	
09/30/2013	5,633,537	2,253,415	1,126,707	0	0	
09/30/2014	3,776,895	2,266,137	1,510,758	755,379	0	
09/30/2015	(10,133,353)	(8,106,682)	(6,080,012)	(4,053,341)	(2,026,671)	
Total		(2,014,307)	(3,442,547)	(3,297,962)	(2,026,671)	
	De	evelopment of Ir	nvestment Gair	/(Loss)		
Market Value of A	Assets, 09/30/2014,				113,192,965	
	f Assets, 09/30/201				105,553,653	
Contributions Les	s Benefit Payments	s & Admin Expe	enses		(2,035,099)	
Expected Investme	ent Earnings on Ac	tuarial Value*			8,362,888	
Actual Net Investr				_	(1,770,465)	
2015 Actuarial Inv	vestment Gain/(Los	ss)			(10,133,353)	
*Expected Investm	ment Earnings = 0.0	08 * [105,553,65	53 + 0.5 * (2,0)	35,099)]		
	Dev	velopment of Ac	ctuarial Value o	of Assets		
	of Assets, 09/30/2				108,697,588	
(2) Gains/(Losses) Not Yet Recognized					(2,014,307)	
(3) Actuarial Value of Assets, 09/30/2015, (1) - (2)					110,711,895	
(A) 09/30/2014 A	ctuarial Asset, incl	uding Prepaid C	Contributions:		105,553,653	
(I) Net Investmen	t Income:					
1. Interest and					2,840,293	
2. Realized Gar	ins (Losses)				7,365,985	
3. Change in A					(1,611,192)	
4. Investment F					(711,930)	
	Total			·	7,883,154	
(B) 09/30/2015 Ad	ctuarial Assets, inc	luding Prepaid	Contributions:		111,401,708	
Actuarial Asset R	ate of Return = $2I/($	A+B-I)·			7.54%	
	Assets Rate of Retu				-1.56%	
Actuarial Gain/(Le	oss) due to Investm	nent Return (Ac	tuarial Asset B	asis)	(479,734)	
10/01/2015 Limited Actuarial Assets:					110,711,895	

0

## DEFERRED RETIREMENT OPTION PLAN ACTIVITY October 1, 2014 to September 30, 2015

Beginning of the Year Balance	2,312,079.75
Plus Additions	1,386,455.93
Investment Return Earned	112,723.34
Less Distributions	(189,590.51)
End of the Year Balance	3,621,668.51

# RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2015

(1)	Required City and State Contributions	\$4,334,264.00
(2)	Less Allowable State Contribution	(698,091.40)
(3)	Required City Contribution for Fiscal 2015	3,636,172.60
(4)	Less 2014 Prepaid Contribution	(652,224.36)
(5)	Less Actual City Contributions	(3,673,760.81)
(6)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2015	(\$689,812.57)

#### STATISTICAL DATA <sup>1</sup>

	10/1/2012	10/1/2013	10/1/2014	10/1/2015
Actives				
Number Average Current Age Average Age at Employment	88 41.5 25.6	93 40.6 25.6	89 37.4 25.9	86 36.4 25.8
Average Past Service Average Annual Salary	15.9 \$55,084	15.1 \$49,183	11.5 \$48,091	10.6 \$49,742
Service Retirees				
Number Average Current Age Average Annual Benefit			74 66.5 \$52,391	73 66.9 \$52,589
DROP Retirees				
Number Average Current Age Average Annual Benefit			24 52.9 \$52,311	30 52.6 \$53,304
Beneficiaries				
Number Average Current Age Average Annual Benefit			34 74.2 \$27,363	33 73.8 \$28,442
Disability Retirees				
Number Average Current Age Average Annual Benefit			56 67.4 \$32,212	55 68.3 \$32,047
Terminated Vested <sup>2</sup>				
Number Average Current Age Average Annual Benefit			0 N/A N/A	1 47.2 \$31,115

<sup>&</sup>lt;sup>1</sup> Prior to 10/1/2014, averages were salary weighted.

<sup>&</sup>lt;sup>2</sup> Excludes nonvested terminated Members awaiting a refund of Member Contributions.

#### AGE AND SERVICE DISTRIBUTION

#### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	5	1	1	0	0	0	0	0	0	0	0	7
25 - 29	3	3	2	0	1	3	0	0	0	0	0	12
30 - 34	1	3	2	1	1	9	3	0	0	0	0	20
35 - 39	0	0	0	0	1	5	4	1	0	0	0	11
40 - 44	0	1	0	0	0	3	4	5	4	0	0	17
45 - 49	0	0	0	0	0	1	3	3	6	0	0	13
50 - 54	0	0	0	0	0	0	0	2	3	1	0	6
55 - 59	0	0	0	0	0	0	0	0	0	0	0	0
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	9	8	5	1	3	21	14	11	13	1	0	86

#### VALUATION PARTICIPANT RECONCILIATION

#### 1. Active lives

a. Number in prior valuation 10/1/2014	89
b. Terminations	
i. Vested (partial or full) with deferred benefits	(2)
ii. Non-vested or full lump sum distribution received	(3)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>(7)</u>
g. Continuing participants	77
h. New entrants	<u>9</u>
i. Total active life participants in valuation	86

## 2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving Benefits	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested <u>Deferred</u> 1	<u>Total</u>
a. Number prior valuation	74	24	34	56	0	188
Retired	1	(1)	0	0	0	0
DROP	0	7	0	0	0	7
Vested Deferred	0	0	0	0	3	3
Death, With Survivor	(2)	0	3	(1)	0	0
Death, No Survivor	0	0	(4)	0	0	(4)
Disabled	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0
b. Number current valuation	73	30	33	55	3	194

<sup>&</sup>lt;sup>1</sup> Includes nonvested terminated Members awaiting a refund of Member Contributions.

#### SUMMARY OF PLAN PROVISIONS

(Through Ordinance No.02-11 and Florida Statutes Chapter 2015-206)

Eligibility Employees who are classified as full-time Firefighters

shall participate in the System as a condition of

employment.

<u>Credited Service</u> Total years and fractional parts of years of service with

the City as a Firefighter.

<u>Salary</u> Regular wages, longevity pay, station or watch captain

pay, special duty pay, bonuses, lump-sum payments not made at termination, inclusive of elective deferrals, deferred compensation or tax-sheltered annuity

programs.

Employees hired on or after June 10, 2015 have no

overtime included in Salary.

Employees who were non-vested as of June 10, 2015 a maximum of 200 hours of overtime are included in

Salary.

Employees who were vested as of June 10, 2015, a maximum of 300 hours of overtime are included in

Salary.

Average Final Compensation Average Salary for the best 2 years out of the last 5 years

of Credited Service for Members with 20 or more years

of Credited Service as of June 10, 2015.

Average Salary for the last 5 years of Credited Service for Members with less than 20 years of Credited Service

as of June 10, 2015.

Member Contributions 11.00% of Salary.

<u>City and State Contributions</u>

Remaining amount required in order to pay current

costs and amortize unfunded past service cost, if any, as

provided in Part VII of Chapter 112, <u>Florida Statutes</u>.

Normal Retirement

Date Earlier of Age 52 and 10 years of Credited Service, or 25

years of Credited Service.

Benefit At 25 years of service, the retirement benefit is 75% of

average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is

reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which

service is less than 25 years.

Form of Benefit If single, single life annuity (options available). If

married, 75% joint and survivor annuity.

For Members hired on or after June 10, 2015 the form of

benefit is a 10-year Certain and Life Annuity.

Early Retirement

Eligibility Age 50 and 10 Years of Credited Service.

Benefit Accrued benefit, reduced 3% per year.

Vesting

Schedule 100% after 10 years of Credited Service.

Benefit Amount Accrued benefit multiplied by the number of years of

service at termination (maximum 25 years) divided by

25 years. Payable at age 52.

Disability

Eligibility Total and permanent disability.

Benefit

Service Incurred The benefit is 75% of first \$2,400 of average final

> compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum

benefit is 42% of AFC.

Non-Service Incurred The benefit is 75% of first \$2,400 of average final

> compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum

benefit is 25% of AFC.

Duration Payable as a 75% joint and survivor benefit. Options

available.

#### **Death Benefits**

**Pre-Retirement** 

Vested 75% of monthly accrued benefit payable to designated

beneficiary for life.

Non-Vested Refund of accumulated contributions without interest.

Post-Retirement Benefits payable to beneficiary in accordance with

option selected at retirement.

<u>Board of Trustees</u> a. Two City Council appointees,

b. Two Members of the Department elected by the

membership, and

c. Fifth Member elected by other 4 appointed by

City Council.

#### **Deferred Retirement Option Plan**

Eligibility Satisfaction of Normal Retirement requirements (Earlier

of Age 52 and 10 years of Credited Service, or 25 years

of Credited Service).

Participation Not to exceed 60 months.

Rate of Return 1.3% annually.

Form of Distribution Cash lump sum (options available) at termination of

employment.

Cost-of-Living Adjustment

Eligibility All members in payment status.

Increased annually based on Consumer Price Index,

limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who

are hired on or after June 10, 2015.

No increases are provided during DROP participation for Members who enter DROP after June 10, 2015.

# STATEMENT OF FIDUCIARY NET POSITION SEPTEMBER 30, 2015

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	266,631
Checking Account	231,657
Money Market	2,351,485
Cash	312
Total Cash and Equivalents	2,850,085
Receivables:	
Member Contributions in Transit	20,866
City Contributions in Transit	190
From General Fund	17,620
Investment Income	314,815
	,
Total Receivable	353,491
Investments:	
U. S. Bonds and Bills	2,063,021
Federal Agency Guaranteed Securities	5,158,215
Fixed Income	18,493,841
Municipal Obligations	3,320,978
Equities	60,952,793
Mutual Funds:	
Equity	6,246,664
Pooled/Common/Commingled Funds:	, ,
Master Limited Partnership	1,782,974
Partnerships	1,647,389
Real Estate	6,673,286
Total Investments	106,339,161
Total Assets	109,542,737
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	148,197
Administrative Expenses	7,139
Unearned Revenue	689,813
Total Liabilities	845,149
NET POSITION RESTRICTED FOR PENSIONS	108,697,588

## STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED SEPTEMBER 30, 2015

Market Value Basis

Α	D)	D)	Π	Ί	ΟI	NS

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COT	ntrihi	ıtions	٠

Member	474,193
City	3,636,173
State	698,091

Total Contributions 4,808,457

**Investment Income:** 

Net Increase in Fair Value of Investments (3,898,826)
Interest & Dividends 2,840,293
Less Investment Expense<sup>1</sup> (711,930)

Net Investment Income (1,770,463)

Total Additions 3,037,994

## **DEDUCTIONS**

Distributions to Members:

Benefit Payments6,585,388Lump Sum DROP Distributions189,591Refunds of Member Contributions13,345

Total Distributions 6,788,324

Administrative Expense 92,821

Total Deductions 6,881,145

Net Increase in Net Position (3,843,151)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 112,540,739

End of the Year 108,697,588

<sup>&</sup>lt;sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2015)

## Plan Description

#### Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other four appointed by City Council.

Plan Membership as of October 1, 2014:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	188
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	-
Active Plan Members	89
	277

## Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

## Normal Retirement:

Date: Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.

Benefit: At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

#### Early Retirement:

Date: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year.

#### Vesting:

Schedule: 100% after 10 years of Credited Service.

Benefit Amount: Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.

## **Disability:**

Eligibility: Total and permanent disability.

Benefit Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.

Benefit Non-Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.

## Pre-Retirement Death Benefits:

Vested: 75% of monthly accrued benefit payable to designated beneficiary for life.

Non-Vested: Refund of accumulated contributions without interest.

## Cost of Living Adjustment:

Eligibility: All members in payment status.

Increase: Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who are hired on or after June 10, 2015.

## Contributions

Member Contributions: 11.00% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII Chapter 112, Florida Statutes.

## Investments

## Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2015:

Asset Class	Target Allocation
Domestic Equity	40%
International Equity	15%
Bonds	25%
Convertibles	10%
Private Real Estate	5%
MLPs	5%
Total	100%

### Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

## Rate of Return:

For the year ended September 30, 2015, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was -1.56 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## **Deferred Retirement Option Program**

Eligibility: Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).

Participation: Not to exceed 60 months.

Rate of Return: 4.00% annually.

The DROP balance as September 30, 2015 is \$3,621,669.

## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2015 were as follows:

Total Pension Liability \$ 126,136,793
Plan Fiduciary Net Position \$ (108,697,588)
Sponsor's Net Pension Liability \$ 17,439,205
Plan Fiduciary Net Position as a percentage of Total Pension Liability 86.17%

#### Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2014 updated to September 30, 2015 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	5.00% - 12.68%
Discount Rate	7.75%
Investment Rate of Return	7.75%

## Mortality Rates Healthy Lives:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Mortality Rates Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale. Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The above stated mortality rates are required by law, effective October 1, 2016 and have been early implemented in conjunction with the 10/01/2015 actuarial valuation.

The significant assumptions are based upon the most recent actuarial experience study dated November 28th, 2011 for the period 1999-2000.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2015 are summarized in the following table:

	Long Term Expected Real	
Asset Class	Rate of Return	
Domestic Equity	8.0%	
International Equity	3.0%	
Bonds	4.4%	
Convertibles	6.4%	
Private Real Estate	4.6%	
MLPs	10.4%	

#### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension

	Current			
	1% Decrease	Discount Rate	1% Increase	
	6.75%	7.75%	8.75%	
Sponsor's Net Pension Liability	\$ 32,080,389	\$ 17,439,205	\$ 5,374,881	

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS Last 10 Fiscal Years

	09/30/2015	09/30/2014
Total Pension Liability		
Service Cost	1,189,882	1,578,578
Interest	9,016,289	9,116,288
Change in Excess State Money	=	-
Changes of benefit terms	(4,080,439)	-
Differences between Expected and Actual Experience	30,585	-
Changes of assumptions	7,780,467	-
Benefit Payments, including Refunds of Employee Contributions	(6,788,324)	(8,163,106)
Net Change in Total Pension Liability	7,148,460	2,531,760
Total Pension Liability - Beginning	118,988,333	116,456,573
Total Pension Liability - Ending (a)	126,136,793	\$118,988,333
Disc F. L. Con. M. ( Dec. Con.		
Plan Fiduciary Net Position	2 (2 ( 172	2 255 401
Contributions - Employer	3,636,173	2,355,481
Contributions - State	698,091	742,106
Contributions - Employee	474,193	457,361
Net Investment Income	(1,770,463)	10,938,657
Benefit Payments, including Refunds of Employee Contributions	(6,788,324)	(8,163,106)
Administrative Expense	(92,821)	(86,564)
Net Change in Plan Fiduciary Net Position	(3,843,151)	6,243,935
Plan Fiduciary Net Position - Beginning	112,540,739	106,296,804
Plan Fiduciary Net Position - Ending (b)	\$108,697,588	\$112,540,739
Net Pension Liability - Ending (a) - (b)	\$ 17,439,205	\$ 6,447,594
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.17%	94.58%
Covered Employee Payroll* Net Pension Liability as a percentage of Covered Employee Payroll	\$ 7,494,388 232.70%	\$ 4,157,835 155.07%

## **Notes to Schedule:**

## Changes of assumptions:

For the 2015 Fiscal year, amounts reported as changes of assumptions were resulted from lowering the investment rate of return from 8.00% to 7.75%.

As approved at the October 21, 2015 Board Meeting, we have employed the special risk mortality tables reflected in the Florida Retirement System Actuarial Valuation as of July 1, 2014.

## Changes of benefit terms:

For the 2015 Fiscal year, amounts reported as changes of benefit terms were resulted from the following plan changes:

- 1. COLA for those retiring after June 10, 2015:
- a. Employees who retire or enter DROP after June 10, 2015 will receive a maximum COLA of 2.0%.
- b. Employees hired after June 10, 2015 will receive a maximum COLA of 1.25%.
- 2. Employees hired after June 10, 2015 spousal benefits shall be determined in conformity with those spousal benefits offered to Special Risk class members in the Florida Retirement System
- 3. Overtime
- a. Vested employees on June 10, 2015 maximum 300 hours of overtime pensionable
- b. Non-vested employees on June 10, 2015 maximum 200 hours of overtime pensionable
- c. Employees hired after June 10, 2015 no overtime pensionable
- 4. Average Final Compensation
- a. Employees with 20 or more years of service on June 10, 2015 will remain the same (highest 2 of the last 5 years)
- b. Employees with less than 20 years of service on June 10, 2015 will be an average of the last 5 years of credited service
- 5. DROP participants entering DROP after June 10, 2015:
- a. Interest rate will be 1.3%
- b. No Cost-of-Living Adjustment (COLA) while in DROP

<sup>\*</sup>For the 2014 Fiscal year, the Covered Employee Payroll was based on Pensionable Salary.

## SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	0	9/30/2015	0	9/30/2014	0	9/30/2013	0	9/30/2012	0	9/30/2011
Actuarially Determined Contribution		4,334,264		3,097,587		3,234,358		3,494,389		3,286,284
Contributions in relation to the										
Actuarially Determined Contributions		4,334,264		3,097,587				3,562,977		3,321,453
Contribution Deficiency (Excess)	\$	-	\$	-	\$	3,234,358	\$	(68,588)	\$	(35,169)
Covered Employee Payroll* Contributions as a percentage of	\$	7,494,388	\$	4,157,835	\$	4,574,063	\$	4,847,354	\$	4,695,857
Covered Employee Payroll		57.83%		74.50%		0.00%		73.50%		70.73%
	0	9/30/2010	0	9/30/2009	0	9/30/2008	0	9/30/20071	0	9/30/20061
Actuarially Determined Contribution		3,441,454		3,691,271		3,704,687		3,605,366		3,181,675
Contributions in relation to the		3,441,454		3,699,133		3,741,734		3,785,634		3,627,109
Contribution Deficiency (Excess)	\$	-	\$	(7,862)	\$	(37,047)	\$	(180,268)	\$	(445,434)
Covered Employee Payroll Contributions as a percentage of	\$	5,009,434	\$	5,175,498	\$	5,512,891	\$	5,041,086	\$	4,840,218
Covered Employee Payroll		68.70%		71.47%		67.87%		75.10%		74.94%

<sup>\*</sup>For the Fiscal years 2006 -2014, the Covered Employee Payroll was based on Pensionable Salary.

## Notes to Schedule

Valuation Date: 10/01/2013

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding Method: Entry Age Normal Actuarial Cost Method. A load based on the salary increase at the

current 6.86% assumption is used to develop the dollar funding requirements. There is

no interest adjustment to reflect the October 1st deposit.

Amortization Method: Level % of Payroll, Closed.

Remaining Amortization Period: 30 Years (as of 10/01/2013 valuation).

Inflation: 3.0% per year.

Mortality Rates: RP-2000 Combined Healthy Projected to 2011 - Sex Distinct. Based on a study of over

650 public safety funds, the RP-2000 table (with no projection) reflects a 10% margin

for future mortality improvements.

Disability Mortality Rates: RP-2000 Disabled Mortality Projected to 2011 – Sex Distinct.

Termination Rates: See Table 1 on following page.

Disability Rates: See Table 2 on following page. 66.7% of disabilities are assumed to be In Line of Duty

(ILOD).

Assumed Retirement Age: See Table 3 on following page. In addition to this table, 75% of members with 25 or

more years of service are assumed to retire.

Early Retirement: Commencing at the member's eligibility for Early Retirement (age 50), members are

assumed to retire with an immediate, subsidized benefit at the rate of 3% per year.

Interest Rate: 8% per year, compounded annually, net of investment related expenses.

<sup>&</sup>lt;sup>1</sup> October 1, 2008 valuation report and older were prepared by Gabriel Roeder Smith & Company.

Salary Increases:

See below Table 4.

Cost-of-Living Adjustment: Payroll Growth:

2.875% per year. 0.6% per year.

Actuarial Asset Method:

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Table 1: Termination Table:	Years of Service	Termination Rates
	1	3.25%
	2	3.00%
	3	2.75%
	4	2.50%
	5	2.25%
	6	2.00%
	7	1.75%
	8	1.50%
	9	1.25%
	10	1.00%
	11+	0.50%
Table 2: Disability Table:	Age	Disability Rates
	20	0.15%
	25	0.17%
	30	0.19%
	35	0.32%
	40	0.45%
	45	1.32%
	50	2.20%
	55	2.63%
	60	3.05%
Table 3: Retirement Table:	Age	Retirement Rates
	50	5%
	51	10%
	52 - 55	25%
	56	100%
Table 4: Salary increase Table:	Age	Increase Rates
	20	12.68%
	25	11.09%
	30	8.55%
	35	6.09%
	40	6.09%
	45	5.63%
	50	5.32%
	55	5.00%

## SCHEDULE OF INVESTMENT RETURNS

Last 10 Fiscal Years

	09/30/2015	09/30/2014
Annual Money-Weighted Rate of Return		
Net of Investment Expense	-1.56%	10.16%

## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2016)

#### General Information about the Pension Plan

## Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other four appointed by City Council.

Employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.

Plan Membership as of October 1, 2014:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	188
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	-
Active Plan Members	89
	277

## Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

#### Normal Retirement:

Date: Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.

Benefit: At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

## **Early Retirement:**

Date: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year.

#### Vesting

Schedule: 100% after 10 years of Credited Service.

Benefit Amount: Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.

## Disability:

Eligibility: Total and permanent disability.

Benefit Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.

Benefit Non-Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.

## **Pre-Retirement Death Benefits:**

Vested: 75% of monthly accrued benefit payable to designated beneficiary for life.

Non-Vested: Refund of accumulated contributions without interest.

#### Cost of Living Adjustment:

Eligibility: All members in payment status.

Increase: Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10,

### Contributions

Member Contributions: 11.00% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII Chapter 112, Florida Statutes.

## Net Pension Liability

The measurement date is September 30, 2015.

The measurement period for the pension expense was October 1, 2014 to September 30, 2015.

The reporting period is October 1, 2015 through September 30, 2016.

The Sponsor's Net Pension Liability was measured as of September 30, 2015.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

## Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2014 updated to September 30, 2015 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	5.00% - 12.68%
Discount Rate	7.75%
Investment Rate of Return	7.75%

Mortality Rates Healthy Lives:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Mortality Rates Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The above stated mortality rates are required by law, effective October 1, 2016 and have been early implemented in conjunction with the 10/01/2015 actuarial valuation.

The significant assumptions are based upon the most recent actuarial experience study dated November 28th, 2011 for the period 1999-2000.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, Net of Pension Plan investment expenses and inflation) are developed for each major asset class.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2015 are summarized in the following table:

	Long Term Expected
Target Allocation	Real Rate of Return
40%	8.00%
15%	3.00%
25%	4.40%
10%	6.40%
5%	4.60%
5%	10.40%
100%	
	40% 15% 25% 10% 5%

## **GASB 68**

#### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

## CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)				
	Total Pension	Plan Fiduciary	luciary Net Pension		
	Liability	Net Position	Liability		
	(a)	(b)	(a)-(b)		
Reporting Period Ending September 30, 2015	\$ 118,988,333	\$ 112,540,739	\$ 6,447,594		
Changes for a Year:					
Service Cost	1,189,882	-	1,189,882		
Interest	9,016,289	-	9,016,289		
Differences between Expected and Actual Experience	30,585	-	30,585		
Changes of assumptions	7,780,467	-	7,780,467		
Changes of benefit terms	(4,080,439)	-	(4,080,439)		
Contributions - Employer	-	3,636,173	(3,636,173)		
Contributions - State	-	698,091	(698,091)		
Contributions - Employee	-	474,193	(474,193)		
Contributions - Buy Back	-	-	-		
Net Investment Income	-	(1,770,463)	1,770,463		
Benefit Payments, including Refunds of Employee Contributions	(6,788,324)	(6,788,324)	-		
Administrative Expense		(92,821)	92,821		
Net Changes	7,148,460	(3,843,151)	10,991,611		
Reporting Period Ending at September 30, 2016	\$ 126,136,793	\$ 108,697,588	\$ 17,439,205		

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current Discount					
	1% Decrease Rate 1			1% Increase		
		6.75%		7.75%		8.75%
Sponsor's Net Pension Liability	\$	32,080,389	\$	17,439,205	\$	5,374,881

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

# PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

For the year ended September 30, 2016, the Sponsor will recognize a Pension Expense of \$390,393. On September 30, 2016, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred	Deferred
	Outflows of	Inflows of
	Resources	Resources
Differences between Expected and Actual Experience	22,938	-
Changes of assumptions	5,835,351	-
Net difference between Projected and Actual Earnings on Pension Plan investments	6,979,032	-
Employer and State Contributions subsequent to the measurement date	3,822,480	-
Total	\$ 16,659,801	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2016. Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2017	\$ 3,566,386
2018	\$ 3,566,386
2019	\$ 3,566,386
2020	\$ 2,138,163
2021	\$ -
Thereafter	\$ -

# SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS Last 10 Fiscal Years

Deporting Deried Ending	09/30/2016	09/30/2015
Reporting Period Ending Measurement Date	09/30/2015	09/30/2013
Total Pension Liability	09/30/2013	09/30/2014
Service Cost	1,189,882	1,578,578
Interest	9,016,289	9,116,288
Changes of benefit terms	(4,080,439)	9,110,200
Differences between Expected and Actual Experience	30,585	_
Changes of assumptions	7,780,467	-
Benefit Payments, including Refunds of Employee Contributions	(6,788,324)	(8,163,106)
Net Change in Total Pension Liability	7,148,460	2,531,760
•		
Total Pension Liability - Beginning	118,988,333	116,456,573
Total Pension Liability - Ending (a)	\$126,136,793	\$118,988,333
Plan Fiduciary Net Position		
Contributions - Employer	3,636,173	2,355,481
Contributions - Employer  Contributions - State	698,091	742,106
Contributions - State  Contributions - Employee	474,193	457,361
Net Investment Income	(1,770,463)	10,938,657
Benefit Payments, including Refunds of Employee Contributions	(6,788,324)	(8,163,106)
Administrative Expense	(92,821)	(86,564)
1		
Net Change in Plan Fiduciary Net Position	(3,843,151)	6,243,935
Plan Fiduciary Net Position - Beginning	112,540,739	106,296,804
Plan Fiduciary Net Position - Ending (b)	\$108,697,588	\$112,540,739
Net Pension Liability - Ending (a) - (b)	\$ 17,439,205	\$ 6,447,594
	0.4.	
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.17%	94.58%
Covered Employee Payroll*	\$ 7,494,388	\$ 4,157,835
Net Pension Liability as a percentage of Covered Employee Payroll	232.70%	155.07%
1 tot I onston Endomity as a percontage of Covered Employee I aylon	232.1070	133.07/0

## **Notes to Schedule:**

Changes of assumptions:

For the 2016 Reporting Period Ending year, amounts reported as changes of assumptions were resulted from lowering the investment rate of return from 8.00% to 7.75%.

As approved at the October 21, 2015 Board Meeting, we have employed the special risk mortality tables reflected in the Florida Retirement System Actuarial Valuation as of July 1, 2014.

## Changes of benefit terms:

For the 2015 Fiscal year, amounts reported as changes of benefit terms were resulted from the following plan changes:

- 1. COLA for those retiring after June 10, 2015:
- a. Employees who retire or enter DROP after June 10, 2015 will receive a maximum COLA of 2.0%.
- b. Employees hired after June 10, 2015 will receive a maximum COLA of 1.25%.
- 2. Employees hired after June 10, 2015 spousal benefits shall be determined in conformity with those spousal benefits offered to Special Risk class members in the Florida Retirement System
- 3. Overtime
- a. Vested employees on June 10, 2015 maximum 300 hours of overtime pensionable
- b. Non-vested employees on June 10, 2015 maximum 200 hours of overtime pensionable
- c. Employees hired after June 10, 2015 no overtime pensionable
- 4. Average Final Compensation
- a. Employees with 20 or more years of service on June 10, 2015 will remain the same (highest 2 of the last 5 years)
- b. Employees with less than 20 years of service on June 10, 2015 will be an average of the last 5 years of credited service
- 5. DROP participants entering DROP after June 10, 2015:
- a. Interest rate will be 1.3%
- b. No Cost-of-Living Adjustment (COLA) while in DROP

<sup>\*</sup>For the 2015 Reporting Period Ending year, the Covered Employee Payroll was based on Pensionable Salary.

## SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

Reporting Date Measurement Date		9/30/2016		09/30/2015 09/30/2014		09/30/2014		09/30/2013		9/30/2012 9/30/2011
Actuarially Determined Contribution Contributions in relation to the		4,334,264		3,097,587		3,234,358		3,494,389		3,286,284
Actuarially Determined Contributions		4,334,264		3,097,587		=		3,562,977		3,321,453
Contribution Deficiency (Excess)	\$	-	\$	-	\$	3,234,358	\$	(68,588)	\$	(35,169)
Covered Employee Payroll* Contributions as a percentage of	\$	7,494,388	\$	4,157,835	\$	4,574,063	\$	4,847,354	\$	4,695,857
Covered Employee Payroll		57.83%		74.50%		0.00%		73.50%		70.73%
Reporting Date		9/30/2011	C	9/30/2010	(	09/30/2009	C	09/30/2008	0	9/30/20071
Measurement Date	0	9/30/2010	0	9/30/2009	(	09/30/2008	0	9/30/20071	0	9/30/20061
Actuarially Determined Contribution		3,441,454		3,691,271		3,704,687		3,605,366		3,181,675
Contributions in relation to the										
Actuarially Determined Contributions		3,441,454		3,699,133		3,741,734		3,785,634		3,627,109
Contribution Deficiency (Excess)	\$		\$	(7,862)	\$	(37,047)	\$	(180,268)	\$	(445,434)
Covered Employee Payroll* Contributions as a percentage of	\$	5,009,434	\$	5,175,498	\$	5,512,891	\$	5,041,086	\$	4,840,218
Covered Employee Payroll		68.70%		71.47%		67.87%		75.10%		74.94%

<sup>\*</sup>For the 2015 Reporting Period Ending year, the Covered Employee Payroll was based on Pensionable Salary.

#### Notes to Schedule

Valuation Date: 10/01/2013

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding Method: Entry Age Normal Actuarial Cost Method. A load

Amortization Method: Level % of Payroll, Closed.

Remaining Amortization Period: 30 Years (as of 10/01/2013 valuation).

Inflation: 3.0% per year.

Mortality Rates: RP-2000 Combined Healthy Projected to 2011 - Sex Distinct. Based on a study of over

650 public safety funds, the RP-2000 table (with no projection) reflects a 10% margin

for future mortality improvements.

Disability Mortality Rates: RP-2000 Disabled Mortality Projected to 2011 – Sex Distinct.

Termination Rates: See Table 1 on following page.

Disability Rates: See Table 2 on following page. 66.7% of disabilities are assumed to be In Line of Duty

(ILOD).

Assumed Retirement Age: See Table 3 on following page. In addition to this table, 75% of members with 25 or

more years of service are assumed to retire.

Early Retirement: Commencing at the member's eligibility for Early Retirement (age 50), members are

assumed to retire with an immediate, subsidized benefit at the rate of 3% per year.

Interest Rate: 8% per year, compounded annually, net of investment related expenses.

<sup>&</sup>lt;sup>1</sup> October 1, 2008 valuation report and older were prepared by Gabriel Roeder Smith & Company.

Salary Increases: See below Table 4.

Cost-of-Living Adjustment: 2.875% per year.

Payroll Growth: 0.6% per year.
Actuarial Asset Method: All assets are v

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

1   3.25%   2   3.00%   3   2.75%   4   2.50%   5   2.25%   6   2.00%   6   7   1.75%   8   1.50%   9   1.25%   10   1.00%   11+   0.50%   10   1.00%   11+   0.50%   25   0.17%   30   0.19%   35   0.32%   40   0.45%   45   1.32%   50   2.20%   55   2.63%   60   3.05%   7   1.25%   50   1.25%   50   1.25%   50   1.20%   55   2.63%   50   3.05%   51   1.00%   52 - 55   2.55%   56   1000%   55 - 55   2.55%   56   1000%   55 - 55   2.55%   35   6.09%   40   6.09%   45   5.63%   50   5.32%   50   5.32%   50   5.63%   50   5.32%   50	Table 1: Termination Table:	Years of Service	Termination Rates
3   2.75%     4   2.50%     5   2.25%     6   2.00%     7   1.75%     8   1.50%     9   1.25%     10   1.00%     11+   0.50%     Table 2: Disability Table:   Age   Disability Rates     20   0.15%     25   0.17%     30   0.19%     35   0.32%     40   0.45%     45   1.32%     50   2.20%     55   2.63%     60   3.05%     Table 3: Retirement Table:   Age   Retirement Rates     50   5%     51   10%     52-55   2.5%     56   100%     Table 4: Salary increase Table:   Age   Increase Rates     20   12.68%     25   11.09%     30   8.55%     30   8.55%     35   6.09%     40   6.09%     45   5.63%     50   5.32%     45   5.63%     50   5.32%     46   6.09%     45   5.63%     50   5.32%	_	1	3.25%
4			3.00%
S			2.75%
Company			2.50%
Table 3: Retirement Table:   Age   Disability Rates		5	2.25%
S			
9			1.75%
Table 2: Disability Table:  Age Disability Rates  20 0.15% 25 0.17% 30 0.19% 35 0.32% 40 0.45% 45 1.32% 50 2.20% 55 2.63% 60 3.05%  Table 3: Retirement Table:  Age Retirement Rates  50 51 10% 52 - 55 56 100%  Table 4: Salary increase Table:  Age Increase Rates  20 12.68% 25 11.09% 30 8.55% 35 6.09% 40 6.09% 44 6.09% 45 5.63% 50 5.32%			
Table 2: Disability Table:         Age         Disability Rates           20         0.15%           25         0.17%           30         0.19%           35         0.32%           40         0.45%           45         1.32%           50         2.20%           55         2.63%           60         3.05%           Table 3: Retirement Table:         Age         Retirement Rates           50         5%           51         10%           52 - 55         25%           56         100%           Table 4: Salary increase Table:         Age         Increase Rates           20         12.68%           25         11.09%           30         8.55%           30         8.55%           35         6.09%           40         6.09%           45         5.63%           50         5.32%			
Table 2: Disability Table:         Age         Disability Rates           20         0.15%           25         0.17%           30         0.19%           35         0.32%           40         0.45%           45         1.32%           50         2.20%           55         2.63%           60         3.05%           Table 3: Retirement Table:         Age         Retirement Rates           50         5%           51         10%           52-55         25%           56         100%           Table 4: Salary increase Table:         Age         Increase Rates           25         11.09%           30         8.55%           35         6.09%           40         6.09%           45         5.63%           50         5.32%			
20		11+	0.50%
25	Table 2: Disability Table:	Age	Disability Rates
30		20	0.15%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			0.17%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			0.19%
45		35	0.32%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		40	0.45%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			1.32%
Table 3: Retirement Table:     Age     Retirement Rates       50     5%       51     10%       52 - 55     25%       56     100%       Table 4: Salary increase Table:     Age     Increase Rates       20     12.68%       25     11.09%       30     8.55%       35     6.09%       40     6.09%       45     5.63%       50     5.32%			
Table 3: Retirement Table:         Age         Retirement Rates           50         5%           51         10%           52 - 55         25%           56         100%           Table 4: Salary increase Table:         Age         Increase Rates           20         12.68%           25         11.09%           30         8.55%           35         6.09%           40         6.09%           45         5.63%           50         5.32%			
Table 3: Retirement Table:         Age         Retirement Rates           50         5%           51         10%           52 - 55         25%           56         100%           Table 4: Salary increase Table:         Age         Increase Rates           20         12.68%           25         11.09%           30         8.55%           35         6.09%           40         6.09%           45         5.63%           50         5.32%			3.05%
51     10%       52 - 55     25%       56     100%       Table 4: Salary increase Table:     Age     Increase Rates       20     12.68%       25     11.09%       30     8.55%       35     6.09%       40     6.09%       45     5.63%       50     5.32%	Table 3: Retirement Table:	Âge	Retirement Rates
52 - 55         25%           56         100%           Table 4: Salary increase Table:         Age         Increase Rates           20         12.68%           25         11.09%           30         8.55%           35         6.09%           40         6.09%           45         5.63%           50         5.32%			5%
Age     Increase Rates       20     12.68%       25     11.09%       30     8.55%       35     6.09%       40     6.09%       45     5.63%       50     5.32%			
Table 4: Salary increase Table:         Age         Increase Rates           20         12.68%           25         11.09%           30         8.55%           35         6.09%           40         6.09%           45         5.63%           50         5.32%			25%
20 12.68% 25 11.09% 30 8.55% 35 6.09% 40 6.09% 45 5.63% 50 5.32%		56	100%
20 12.68% 25 11.09% 30 8.55% 35 6.09% 40 6.09% 45 5.63% 50 5.32%	Table 4: Salary increase Table:	Age	Increase Rates
25 11.09% 30 8.55% 35 6.09% 40 6.09% 45 5.63% 50 5.32%			
30 8.55% 35 6.09% 40 6.09% 45 5.63% 50 5.32%			
35 6.09% 40 6.09% 45 5.63% 50 5.32%			
40 6.09% 45 5.63% 50 5.32%			
45 5.63% 50 5.32%			
50 5.32%			
55 5.00%		55	5.00%

# FINAL COMPONENTS OF PENSION EXPENSE FISCAL YEAR SEPTEMBER 30, 2015

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 10,159,769	\$ -	\$ 3,097,587	\$ -
Employer and State Contributions made after 09/30/2014	-	-	4,334,264	-
Total Pension Liability Factors:				
Service Cost	1,578,578	-	-	1,578,578
Interest	9,116,288	-	-	9,116,288
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience				
with regard to economic or demographic assumptions	-	-	-	-
Current year amortization of experience difference	-	-	-	-
Change in assumptions about future economic or				
demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments	(8,163,106)			(8,163,106)
Net change	2,531,760		4,334,264	2,531,760
Plan Fiduciary Net Position:				
Contributions - Employer	2,355,481	-	(2,355,481)	-
Contributions - State	742,106	-	(742,106)	-
Contributions - Employee	457,361	-	-	(457,361)
Net Investment Income	8,315,955	-	-	(8,315,955)
Difference between projected and actual earnings on				
Pension Plan investments	2,622,702	2,622,702	-	-
Current year amortization	-	(524,541)	-	(524,541)
Benefit Payments	(8,163,106)	-	=	8,163,106
Administrative Expenses	(86,564)			86,564
Net change	6,243,935	2,098,161	(3,097,587)	(1,048,187)
Ending Balance	\$ 6,447,594	\$ 2,098,161	\$ 4,334,264	\$ 1,483,573
-				

# PRELIMINARY COMPONENTS OF PENSION EXPENSE FISCAL YEAR SEPTEMBER 30, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 6,447,594	\$ 2,098,161	\$ 4,334,264	\$ -
Employer and State Contributions made after 09/30/2015	-	-	3,822,480	-
Total Pension Liability Factors:				
Service Cost	1,189,882	-	-	1,189,882
Interest	9,016,289	-	-	9,016,289
Changes in benefit terms	(4,080,439)	-	-	(4,080,439)
Differences between Expected and Actual Experience				
with regard to economic or demographic assumptions	30,585	-	30,585	-
Current year amortization of experience difference	-	-	(7,647)	7,647
Change in assumptions about future economic or				
demographic factors or other inputs	7,780,467	-	7,780,467	-
Current year amortization of change in assumptions	-	-	(1,945,116)	1,945,116
Benefit Payments	(6,788,324)	-	-	(6,788,324)
Net change	7,148,460		9,680,769	1,290,171
Plan Fiduciary Net Position:				
Contributions - Employer	3,636,173	-	(3,636,173)	-
Contributions - State	698,091	-	(698,091)	-
Contributions - Employee	474,193	-	-	(474,193)
Net Investment Income	8,920,352	-	-	(8,920,352)
Difference between projected and actual earnings on				
Pension Plan investments	(10,690,815)	-	10,690,815	-
Current year amortization	-	(524,541)	(2,138,163)	1,613,622
Benefit Payments	(6,788,324)	-	-	6,788,324
Administrative Expenses	(92,821)	-	-	92,821
Net change	(3,843,151)	(524,541)	4,218,388	(899,778)
Ending Balance	\$ 17,439,205	\$ 1,573,620	\$ 18,233,421	\$ 390,393
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