

CITY OF NAPLES
FIREFIGHTERS' PENSION AND RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT
AS OF OCTOBER 1, 2016

CONTRIBUTIONS APPLICABLE TO THE CITY'S
PLAN/FISCAL YEAR ENDED SEPTEMBER 30, 2018

November 28, 2016

Board of Trustees
City of Naples Firefighters' Pension and Retirement System
c/o City of Naples Finance Department
735 8th Street, South
Naples, FL 34102

Re: City of Naples
Firefighters' Pension and Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Naples Firefighters' Pension and Retirement System. 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 bank, 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 Naples, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Naples Firefighters' Pension and Retirement System. 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:



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #14-7778

DHL/lke

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Naples Firefighters' Pension and Retirement System, performed as of October 1, 2016, has been completed, and the results are presented in this Report. The contribution amounts set forth herein are applicable to the City's plan/fiscal year ending September 30, 2018. Funding requirements are projected for a lump sum City deposit on October 1, 2017, based on the Board's adoption of a Beginning of Year Funding Method.

The funding requirements, compared with the amounts developed in the October 1, 2015, actuarial valuation, are as follows:

Valuation Date	10/1/16	10/1/15
Applicable Plan Year End	<u>9/30/18</u>	<u>9/30/17</u>
Total Required Contribution		
% of Total Annual Payroll	71.43%	68.60%
Less Member Contributions (Est.)		
% of Total Annual Payroll	4.77%	4.91%
City and State Required Contribution		
% of Total Annual Payroll	66.66%	63.69%
Less State Contribution (est.) ¹	581,196	581,196
% of Total Annual Payroll	19.21%	19.21%
Less City Incentive Contribution	57,135	57,135
% of Total Annual Payroll	1.89%	1.89%
Balance from City ¹		
% of Total Annual Payroll	45.56%	42.59%

¹ Amount received in Calendar 2016. The City may use up to \$1,668,662 in State Contributions for determining its minimum funding requirements. For budgeting purposes, the required Sponsor Contribution (City and State) is 66.66% of Pensionable Earnings for the fiscal year ending September 30, 2018. The precise City requirement for the year is this amount, less actual State Contributions (up to the maximum \$1,668,662). Additionally, the City has a \$450,423.54 shortfall contribution for the fiscal year ended September 30, 2016. The Division of Retirement expects an interest charge of

\$2,815 for each full month after September 30, 2015 until this deposit is made.

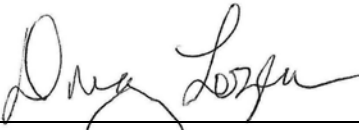
Experience since the prior valuation has been more favorable than expected on the basis of the Plan's actuarial assumptions. The primary sources of favorable experience included a 9.66% investment return (Actuarial Asset Basis), exceeding the 7.50% assumption, and favorable employee turnover experience.

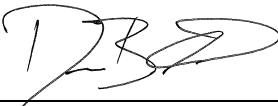
In spite of a net actuarial gain for the year, City funding requirements have increased due to a decrease in annual State Contributions of almost \$140,000, in addition to a 6.5% reduction in valuation payroll. The payroll reduction results in an increase in the contribution requirement for payment of the Unfunded Actuarial Accrued Liability when expressed as a percentage of payroll.

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 answer any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By: 
Douglas H. Lozen, EA, MAAA

By: 
Drew D. Ballard, EA, MAAA

CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2015	39.62%
(2) Summary of Contribution Impact by component:	
Change in Available State Money	3.1%
Investment Return (Actuarial Asset Basis)	-2.3%
Salary Increases	-0.1%
Payroll Change Effect on UAAL Amortization	2.9%
Change in Administrative Expense Percentage	0.2%
Active Decrements	-1.2%
Inactive Mortality	0.2%
Change in Normal Cost Rate	-2.1%
Assumption Changes	4.5%
Other	<u>0.7%</u>
Total Change in Contribution	5.94%
(3) Contribution Determined as of October 1, 2016	45.56%

CHANGES SINCE PRIOR VALUATION

Plan Changes

There have been no changes in benefits since the prior valuation.

Actuarial Assumption/Method Changes

- The payroll growth assumption, utilized for purposes of amortizing the Unfunded Actuarial Accrued Liability, was lowered from 0.8% to 0.0% per year. This reduction complies with the requirements of Part VII of Chapter 112, Florida Statutes, whereby the use of a payroll growth assumption is limited to the Plan's actual ten-year payroll growth average, determined as of the valuation date.
- As mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed from the RP-2000 Combined Healthy Table to the mortality table used by the Florida Retirement System actuary. The impact of this change is shown on the comparative summary section of this report.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2016</u>	Old Assump <u>10/1/2016</u>	<u>10/1/2015</u>
A. Participant Data			
Actives	47	47	48
Service Retirees	37	37	36
DROP Retirees	9	9	6
Beneficiaries	1	1	1
Disability Retirees	1	1	1
Terminated Vested	<u>5</u>	<u>5</u>	<u>6</u>
Total	100	100	98
Total Annual Payroll	3,025,094	3,025,094	3,233,944
Annual Rate of Payments to:			
Service Retirees	2,120,914	2,120,914	2,043,374
DROP Retirees	778,653	778,653	499,391
Beneficiaries	10,162	10,162	10,162
Disability Retirees	44,018	44,018	42,840
Terminated Vested	90,881	90,881	77,131
B. Assets			
Actuarial Value (AVA) ¹	49,111,133	49,111,133	44,672,607
Market Value (MVA) ¹	48,689,417	48,689,417	44,973,797
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	17,100,402	17,303,556	20,625,655
Disability Benefits	984,643	1,127,259	1,144,239
Death Benefits	290,779	93,051	95,006
Vested Benefits	88,150	91,233	95,783
Refund of Contributions	9,556	9,576	8,128
Service Retirees	33,472,355	32,346,768	31,628,157
DROP Retirees ¹	13,993,513	13,757,673	8,757,799
Beneficiaries	88,126	82,590	84,854
Disability Retirees	574,009	596,394	592,532
Terminated Vested	597,407	588,634	476,217
Share Balances ¹	<u>843,285</u>	<u>843,285</u>	<u>783,232</u>
Total	68,042,225	66,840,019	64,291,602

C. Liabilities - (Continued)	New Assump <u>10/1/2016</u>	Old Assump <u>10/1/2016</u>	<u>10/1/2015</u>
Present Value of Future Salaries	27,588,573	27,907,880	29,666,833
Present Value of Future Member Contributions	1,315,975	1,331,206	1,456,642
Normal Cost (Retirement)	602,581	639,589	750,613
Normal Cost (Disability)	70,731	84,385	92,118
Normal Cost (Death)	17,693	5,928	6,638
Normal Cost (Vesting)	11,409	12,262	13,280
Normal Cost (Refunds)	<u>3,095</u>	<u>3,096</u>	<u>3,524</u>
Total Normal Cost	705,509	745,260	866,173
Present Value of Future Normal Costs	5,814,939	6,209,373	6,505,202
Accrued Liability (Retirement)	12,085,285	11,944,220	14,979,320
Accrued Liability (Disability)	390,392	402,163	414,948
Accrued Liability (Death)	160,391	48,888	49,765
Accrued Liability (Vesting)	22,523	20,031	19,402
Accrued Liability (Refunds)	0	0	174
Accrued Liability (Inactives) ¹	48,725,410	47,372,059	41,539,559
Share Balances ¹	<u>843,285</u>	<u>843,285</u>	<u>783,232</u>
Total Actuarial Accrued Liability (AL)	62,227,286	60,630,646	57,786,400
Unfunded Actuarial Accrued Liability (UAAL)	13,116,153	11,519,513	13,113,793
Funded Ratio (AVA / AL)	78.9%	81.0%	77.3%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2016</u>	Old Assump <u>10/1/2016</u>	<u>10/1/2015</u>
Vested Accrued Benefits			
Inactives ¹	48,725,410	47,372,059	41,539,559
Actives	6,152,993	6,221,853	14,380,796
Share Balances ¹	843,285	843,285	783,232
Member Contributions	<u>1,236,145</u>	<u>1,236,145</u>	<u>1,905,708</u>
Total	56,957,833	55,673,342	58,609,295
Non-vested Accrued Benefits	<u>5,398,957</u>	<u>5,350,450</u>	<u>83,055</u>
Total Present Value Accrued Benefits (PVAB)	62,356,790	61,023,792	58,692,350
Funded Ratio (MVA / PVAB)	78.1%	79.8%	76.6%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	1,332,998	0	
New Accrued Benefits	0	154,682	
Benefits Paid	0	(2,144,739)	
Interest	0	4,321,499	
Other	<u>0</u>	<u>0</u>	
Total	1,332,998	2,331,442	

	New Assump	Old Assump	
Valuation Date	10/1/2016	10/1/2016	10/1/2015
Applicable to Fiscal Year Ending	<u>9/30/2018</u>	<u>9/30/2018</u>	<u>9/30/2017</u>

E. Pension Cost

Normal Cost (with interest)			
% of Total Annual Payroll ²	23.32	24.64	26.78
Administrative Expenses (with interest)			
% of Total Annual Payroll ²	2.21	2.21	1.98
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2016, with interest)			
% of Total Annual Payroll ²	45.90	40.04	39.84
Total Required Contribution			
% of Total Annual Payroll ²	71.43	66.89	68.60
Expected Member Contributions			
% of Total Annual Payroll ²	4.77	4.77	4.91
Expected City and State Contribution			
% of Total Annual Payroll ²	66.66	62.12	63.69

F. Past Contributions

Plan Years Ending:	<u>9/30/2016</u>
City and State Requirement	2,148,871
Actual Contributions Made:	
Members (excluding buyback)	156,537
City	1,567,675
State	<u>581,196</u>
Total	2,305,408

G. Net Actuarial (Gain)/Loss (1,169,086)

¹ The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2016 and 9/30/2015.

² Contributions developed as of 10/1/2016 are expressed as a percentage of total annual payroll at 10/1/2016 of \$3,025,094.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2016	13,116,153
2017	12,607,212
2018	12,060,096
2025	6,891,865
2030	2,063,187
2045	33,663
2046	0

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	3.76%	5.02%
Year Ended	9/30/2015	3.68%	5.02%
Year Ended	9/30/2014	2.26%	6.51%

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	9.66%	7.50%
Year Ended	9/30/2015	9.29%	7.50%
Year Ended	9/30/2014	11.03%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2016	\$3,025,094
	10/1/2006	3,249,388
(b) Total Increase		-6.90%
(c) Number of Years		10.00
(d) Average Annual Rate		-0.71%

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.



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #14-7778

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, 2015	\$13,113,793
(2)	Sponsor Normal Cost developed as of October 1, 2015	707,386
(3)	Expected administrative expenses for the year ended September 30, 2016	63,952
(4)	Expected interest on (1), (2) and (3)	1,038,987
(5)	Sponsor contributions to the System during the year ended September 30, 2016	2,148,871
(6)	Expected interest on (5)	86,648
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2016 (1)+(2)+(3)+(4)-(5)-(6)	12,688,599
(8)	Change to UAAL due to Assumption Change	1,596,640
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(1,169,086)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2016	13,116,153

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2016 Amount</u>	<u>Amortization Amount ¹</u>
	10/1/1997	11	\$1,320,218	\$167,880
	10/1/1999	13	2,079,409	238,047
	10/1/2000	14	(964,143)	(105,650)
	10/1/2002	16	4,031,771	410,270
	10/1/2003	17	2,241,141	220,987
Actuarial Loss	10/1/2004	18	2,552,335	244,618
Amendment	10/1/2004	18	(8,911)	(854)
Actuarial Gain	10/1/2005	19	(303,180)	(28,319)
Assum. Change	10/1/2005	19	1,196,518	111,761
Actuarial Gain	10/1/2006	20	(473,665)	(43,221)
Assum. Change	10/1/2006	20	1,264,585	115,392
Actuarial Loss	10/1/2007	21	1,775,125	158,571
Assum./Method Change	10/1/2007	21	129,076	11,530
Amendment	10/1/2007	21	863,150	77,105
Actuarial Loss	10/1/2008	22	3,780,599	331,240
Actuarial Gain	10/1/2009	23	(60,104)	(5,174)
Assumption Changes	10/1/2009	23	(1,630,717)	(140,371)
Actuarial Loss	10/1/2010	24	1,958,457	165,877

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2015	\$13,113,793
(2)	Sponsor Normal Cost developed as of October 1, 2015	707,386
(3)	Expected administrative expenses for the year ended September 30, 2016	63,952
(4)	Expected interest on (1), (2) and (3)	1,038,987
(5)	Sponsor contributions to the System during the year ended September 30, 2016	2,148,871
(6)	Expected interest on (5)	86,648
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2016 (1)+(2)+(3)+(4)-(5)-(6)	12,688,599
(8)	Change to UAAL due to Assumption Change	1,596,640
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(1,169,086)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2016	13,116,153

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2016 Amount</u>	<u>Amortization Amount ¹</u>
Actuarial Loss	10/1/2011	25	1,615,595	134,824
Actuarial Gain	10/1/2012	26	(1,026,952)	(84,544)
Amendment	10/1/2012	26	(5,373,631)	(442,385)
Actuarial Gain	10/1/2013	27	(197,605)	(16,066)
Actuarial Gain	10/1/2014	28	(1,333,475)	(107,181)
Assumption Change	10/1/2014	28	(102,879)	(8,269)
Actuarial Gain	10/1/2015	29	(644,118)	(51,229)
Assumption Change	10/1/2016	30	1,596,640	125,758
Actuarial Gain	10/1/2016	30	<u>(1,169,086)</u>	<u>(92,082)</u>
			13,116,153	1,388,515

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2015	\$13,113,793
(2) Expected UAAL as of October 1, 2016	12,688,599
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(969,411)
Salary Increases	(56,628)
Active Decrements	(494,181)
Inactive Mortality	64,039
Other	<u>287,095</u>
Increase in UAAL due to (Gain)/Loss	(1,169,086)
Assumption Changes	<u>1,596,640</u>
(4) Actual UAAL as of October 1, 2016	\$13,116,153

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rates

Mortality Rate *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 assumed rates of mortality were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumption used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2015 FRS actuarial valuation report. We feel this assumption sufficiently accommodates future mortality improvements.

Valuations prior to October 1, 2016: RP-2000 Table projected to the Valuation Date with Schedule AA – Disabled lives set forward 5 years.

Normal Retirement

Eligibility

Hired prior to 6/1/2013: Earlier of 1) Age 55, 2) the completion of 25 years of Credited Service, regardless of age, or 3) the attainment of Age 50 with 20 years of Credited Service.

Hired after May 31, 2013: Earlier of 1) Age 55 with 8 years of Credited Service, or 2) the completion of 25 years of Credited Service, regardless of age.

Retirement Rates

Assumed Normal Retirement rates shown in the table on the following page were incorporated with the October 1, 2007 valuation as the result of a prior Experience Study. These rates are also applicable for Members hired after May 31, 2013, as adopted with the October 1, 2013 valuation.

<u>Number of Year After First Eligibility For Normal Retirement</u>	<u>Probability of Normal Retirement</u>
0	25%
1	50%
2	50%
3	50%
4	100%

The retirement rate for Normal Retirement is 100% for participants who have attained age 55 or 25 years of service, regardless of age.

Early Retirement

Attainment of age 50, regardless of years of Credited Service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

These rates were incorporated with the October 1, 2007 valuation as the result of a prior Experience Study.

Termination Rates

<u>Sample Ages</u>	<u>Years of Service</u>	<u>% of Active Members Separating Within Next Year</u>
ALL	0	20.0%
	1	12.0%
	2	8.0%
	3	4.0%
	4	2.0%
20	5+	9.6%
25		5.6%
30		2.8%
35		1.4%
40		0.4%
45+		0.0%

The above rates were incorporated with the October 1, 2007 valuation as the result of a prior Experience Study.

Actuarial Value of Assets

The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

Disability Rates

See table below. It is assumed that 75% of disablements and active Member deaths are service-related. These rates are in line with the national average for municipal defined benefit pension programs.

Age	% Becoming Disabled During the Year
20	0.14%
25	0.15%
30	0.18%
35	0.23%
40	0.30%
45	0.51%
50	1.00%

Salary Increases

See table below. These rates were incorporated with the October 1, 2014 valuation as the result of an Experience Study.

<u>Years of Service</u>	<u>Salary Increase</u>
1	6.0%
2-9	5.5%
10-14	5.0%
15-19	4.5%
20+	4.0%

Payroll Growth

0.0% per year for amortization of the Unfunded Actuarial Accrued Liability, based on the ten-year average (statutory limit). The assumption was 0.8% for the October 1, 2015 valuation.

Interest Rate

7.50% per year, compounded annually, net of investment related expenses. This assumption was adopted by the Board in conjunction with a revision to the October 1, 2006 valuation and is supported by the Plan’s investment policy and long-term expected returns by asset class.

Administrative Expenses

\$66,876, based on actual Administrative Expenses incurred during the prior fiscal year.

Post Retirement COLA

3% per year at beginning at age 50 for Service Retirees, Disability Retirees, and surviving Beneficiaries. The COLA is not applicable for Vested Terminated Members, or for benefits accrued after May 31, 2013.

Funding Method

Entry Age Normal Actuarial Cost Method.

VALUATION NOTES

Total Annual Payroll is the projected annual rate of pay as of the valuation date of all covered Members.

Present Value of Benefits 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.

Normal (Current Year's) Cost is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Individual Entry Age Normal Actuarial Cost Method (Level Percent of Compensation) is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Accrued (Past Service) Liability. The actuarial accrued liability for active participants is the difference between the present value of future benefits and the present value of future Normal Costs. The actuarial accrued liability for inactive participants is the present value of future benefits.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the actuarial value of assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

Total Required Contribution 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.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1993	149,494.29	_____%
1994	161,873.43	8.3%
1995	192,559.04	19.0%
1996	257,693.96	33.8%
1997	294,558.53	14.3%
1998	301,079.01	2.2%
1999	455,798.85	51.4%
2000	554,631.15	21.7%
2001	575,860.11	3.8%
2002	655,065.93	13.8%
2003	806,425.83	23.1%
2004	857,886.93	6.4%
2005	902,412.83	5.2%
2006	977,382.61	8.3%
2007	1,028,721.85	5.3%
2008	1,223,271.11	18.9%
2009	1,390,851.74	13.7%
2010	893,185.02	-35.8%
2011	765,598.10	-14.3%
2012	834,617.96	9.0%
2013	811,882.25	-2.7%
2014	871,999.13	7.4%
2015	721,101.37	-17.3%
2016	581,196.08	-19.4%

EXCESS STATE MONIES RESERVE

	<u>Actual State Contribution</u>	<u>Applicable "Frozen" Amount</u>	<u>Excess State Monies Reserve</u>
1999	455,798.85	436,036.07	19,762.78
2000	554,631.15	607,243.07	0.00
2001	575,860.11	607,243.07	0.00
2002	655,065.93	708,644.07	0.00
2003	806,425.83	708,644.07	97,781.76
2004	857,886.93	708,644.07	149,242.86
2005	902,412.83	708,644.07	193,768.76
2006	977,382.61	708,644.07	268,738.54
2007	1,028,721.85	775,809.07	252,912.78
2008	1,223,271.11	775,809.07	447,462.04
2009 ¹	1,390,851.74	1,668,662.00	0.00
2010	893,185.02	1,668,662.00	0.00
2011	765,598.10	1,668,662.00	0.00
2012	834,617.96	1,668,662.00	0.00
2013	811,882.25	1,668,662.00	0.00
2014	871,999.13	1,668,662.00	0.00
2015	721,101.37	1,668,662.00	0.00
2016	581,196.08	1,668,662.00	<u>0.00</u>
			1,429,669.52
			Less Excess Used in Ord. No. 02-9816 (19,762.78)
			Less Excess Used in Ord. No. 06-11152 (709,531.92)
			Less Excess Used in Ord. No. 08-12286 (18,328.88)
			Less Excess Used in Ord. No. 10-12807 (682,045.94)
			Total Excess State Monies Reserve: 0.00

¹ Supplemental Distribution accrued beginning the fiscal year ending September 30, 2009. Additionally, the "frozen" State Contribution increased to \$1,668,662 as a result of Ordinances 09-12517 and 09-12518.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2016

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	378.84	378.84
Transfer in Transit	680,000.00	680,000.00
Money Market	2,063,944.00	2,063,944.00
Cash	224.05	224.05
 Total Cash and Equivalents	 2,744,546.89	 2,744,546.89
Receivables:		
Member Contributions	2,933.03	2,933.03
Additional City Contributions	450,423.54	450,423.54
State Contributions	116,945.78	116,945.78
 Total Receivable	 570,302.35	 570,302.35
Investments:		
Fixed Income	9,256,315.24	9,358,473.57
Equities	26,858,565.07	31,855,583.54
Pooled/Common/Commingled Funds:		
Fixed Income	977,386.00	988,963.00
Equity	1,220,000.00	1,256,303.63
Real Estate	1,450,000.00	1,929,295.46
 Total Investments	 39,762,266.31	 45,388,619.20
 Total Assets	 43,077,115.55	 48,703,468.44
 <u>LIABILITIES</u>		
Prepaid Member Contribution	14,051.70	14,051.70
 Total Liabilities	 14,051.70	 14,051.70
 NET POSITION RESTRICTED FOR PENSIONS	 43,063,063.85	 48,689,416.74

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2016
Market Value Basis

ADDITIONS

Contributions:			
Member		156,537.22	
Buy-Back		15,021.00	
City		1,510,540.05	
City Incentive		57,135.00	
State		581,196.08	
Total Contributions			2,320,429.35
Investment Income:			
Net Realized Gain (Loss)	424,133.14		
Unrealized Gain (Loss)	2,496,810.43		
Net Increase in Fair Value of Investments		2,920,943.57	
Interest & Dividends		927,846.73	
Less Investment Expense ¹		(241,984.61)	
Net Investment Income			3,606,805.69
Total Additions			5,927,235.04

DEDUCTIONS

Distributions to Members:			
Benefit Payments		2,110,907.91	
Lump Sum DROP Distributions		0.00	
Lump Sum Share Distributions		0.00	
Refunds of Member Contributions		33,831.49	
Total Distributions			2,144,739.40
Administrative Expense			66,875.98
Total Deductions			2,211,615.38
Net Increase in Net Position			3,715,619.66
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			44,973,797.08
End of the Year			48,689,416.74

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION
September 30, 2016

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 Ending	Gain/Loss	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2016	2017	2018	2019	2020
09/30/2012	3,493,051	0	0	0	0	0
09/30/2013	2,016,241	403,248	0	0	0	0
09/30/2014	2,023,214	809,286	404,643	0	0	0
09/30/2015	(3,022,305)	(1,813,383)	(1,208,922)	(604,461)	0	0
09/30/2016	223,916	179,133	134,350	89,566	44,783	0
Total		(421,716)	(669,929)	(514,895)	44,783	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including Prepaid Contributions, 09/30/2015	45,113,736
Contributions Less Benefit Payments & Admin Expenses	(17,073)
Expected Investment Earnings*	3,382,890
Actual Net Investment Earnings	3,606,806
2016 Actuarial Investment Gain/(Loss)	<u>223,916</u>

*Expected Investment Earnings = 0.075 * [45,113,736 + 0.5 * (17,073)]

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2016	48,689,417
(2) Gains/(Losses) Not Yet Recognized	(421,716)
(3) Actuarial Value of Assets, 09/30/2016, (1) - (2)	<u>49,111,133</u>
(A) 09/30/2015 Actuarial Assets, including Prepaid Contributions:	44,812,546
(I) Net Investment Income:	
1. Interest and Dividends	927,847
2. Realized Gains (Losses)	424,133
3. Change in Actuarial Value	3,219,716
4. Investment Expenses	(241,985)
Total	<u>4,329,712</u>
(B) 09/30/2016 Actuarial Assets, including Prepaid Contributions:	49,125,184
Actuarial Asset Rate of Return = 2I/(A+B-I):	9.66%
Market Value of Assets Rate of Return:	8.01%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	969,411
10/01/2016 Limited Actuarial Assets, not including Prepaid:	49,111,133

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2016
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	156,537.22	
Buy-Back	15,021.00	
City	1,510,540.05	
City Incentive	57,135.00	
State	581,196.08	
 Total Contributions		 2,320,429.35
Earnings from Investments:		
Interest & Dividends	927,846.73	
Net Realized Gain (Loss)	424,133.14	
Change in Actuarial Value	3,219,716.43	
 Total Earnings and Investment Gains		 4,571,696.30

EXPENDITURES

Distributions to Members:		
Benefit Payments	2,110,907.91	
Lump Sum DROP Distributions	0.00	
Lump Sum Share Distributions	0.00	
Refunds of Member Contributions	33,831.49	
 Total Distributions		 2,144,739.40
Expenses:		
Investment related ¹	241,984.61	
Administrative	66,875.98	
 Total Expenses		 308,860.59
 Change in Net Assets for the Year		 4,438,525.66
 Net Assets Beginning of the Year		 44,672,607.08
 Net Assets End of the Year ²		 49,111,132.74

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

²Net Assets may be limited for actuarial consideration.

RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2016

(1)	City and State Contribution Rate	66.37%
(2)	Pensionable Payroll Derived from Member Contributions	\$3,237,714.53
(3)	City and State Required Contribution (1) x (2)	2,148,871.13
(4)	Less Allowable State Contribution	<u>(581,196.08)</u>
(5)	Equals Required City Contribution for Fiscal 2016	1,567,675.05
(6)	Less 2015 Prepaid Contribution	(139,486.51)
(7)	Less City Incentive Contribution	(57,135.00)
(8)	Less Actual City Contributions	<u>(920,630.00)</u>
(9)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2016	\$450,423.54

DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2015 to September 30, 2016

Beginning of the Year Balance	596,121.28
Plus Additions	593,250.33
Investment Return Earned	11,780.44
Less Distributions	0.00
End of the Year Balance	1,201,152.05

Note:

Additions for one Member are based on the Normal Form.

Investment Return for one Member will be included in 2017 DROP Plan Activity.

SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2015 to September 30, 2016

09/30/2015 Balance	783,231.51
Plus Additions	-
Investment Return Earned ¹	62,537.87
Less Distributions ¹	(2,484.10)
09/30/2016 Balance	843,285.28

¹ Disbursed prior to fiscal 2015, but not reflected on last year's Share Plan Activity page. Accordingly, no investment earnings for fiscal 2016 are applied to this prior distribution.

STATISTICAL DATA ¹

	<u>10/1/2013</u>	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2016</u>
<u>Actives - Hired on or before May 31, 2013</u>				
Number	55	47	45	41
Average Current Age	39.3	38.1	38.9	39.1
Average Age at Employment	27.6	27.2	26.8	27.1
Average Past Service	11.7	10.9	12.1	12.0
Average Annual Salary	\$64,567	\$63,956	\$68,759	\$67,466
<u>Actives - Hired after May 31, 2013</u>				
Number	1	1	3	6
Average Current Age	24.8	25.8	23.2	28.6
Average Age at Employment	24.7	24.7	22.3	27.8
Average Past Service	0.1	1.1	0.9	0.8
Average Annual Salary	\$49,452	\$49,226	\$46,601	\$59,761
<u>Service Retirees</u>				
Number	33	35	36	37
Average Current Age	57.5	59.9	60.8	61.5
Average Annual Benefit	\$54,421	\$57,332	\$56,760	\$57,322
<u>DROP Retirees</u>				
Number	0	6	6	9
Average Current Age	N/A	52.7	53.5	52.7
Average Annual Benefit	N/A	\$80,042	\$83,232	\$86,517
<u>Beneficiaries</u>				
Number	1	1	1	1
Average Current Age	70.9	71.9	72.9	73.9
Average Annual Benefit	\$7,859	\$7,859	\$10,162	\$10,162
<u>Disability Retirees</u>				
Number	1	1	1	1
Average Current Age	53.7	54.7	55.7	56.7
Average Annual Benefit	\$40,479	\$41,694	\$42,840	\$44,018
<u>Terminated Vested ²</u>				
Number	4	4	5	5
Average Current Age ²	46.3	47.3	44.5	48.2
Average Annual Benefit ²	\$14,891	\$14,891	\$15,426	\$22,720

¹ Prior to 10/1/2015, averages for Active Members were salary-weighted.

² Exclude non-vested 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	2	2	0	0	0	0	0	0	0	0	0	4
25 - 29	0	0	0	2	0	1	0	0	0	0	0	3
30 - 34	1	0	0	1	0	5	1	0	0	0	0	8
35 - 39	0	0	0	2	1	2	4	2	0	0	0	11
40 - 44	0	0	0	0	1	2	1	6	1	0	0	11
45 - 49	0	1	0	0	0	0	1	3	1	1	0	7
50 - 54	0	0	0	0	0	0	0	2	1	0	0	3
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	3	3	0	5	2	10	7	13	3	1	0	47

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2015	48
b. Terminations	
i. Vested (partial or full) with deferred benefits ¹	(1)
ii. Non-vested or full lump sum distribution received	(1)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>(3)</u>
g. Continuing participants	43
h. New entrants	<u>4</u>
i. Total active life participants in valuation	47

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

	Service Retirees, Vested Receiving	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested Deferred ¹	Total
	<u>Benefits</u>	<u>Benefits</u>	<u>Benefits</u>	<u>Benefits</u>	<u>Deferred ¹</u>	<u>Total</u>
a. Number prior valuation	36	6	1	1	6	50
Retired	0	0	0	0	(1)	(1)
DROP	0	3	0	0	0	3
Vested Deferred	1	0	0	0	1	2
Death, With Survivor	0	0	0	0	0	0
Death, No Survivor	0	0	0	0	0	0
Disabled	0	0	0	0	0	0
Net Refund of Contributions	0	0	0	0	(1)	(1)
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	37	9	1	1	5	53

¹ Includes non-vested Members awaiting a refund of Member Contributions.

FIREFIGHTERS' PENSION AND RETIREMENT SYSTEM
SUMMARY OF PLAN PROVISIONS
(Through Ordinance No. 14-13466)

<u>Eligibility</u>	Full-time employees who are classified as certified Firefighters participate in the Plan as a condition of employment.
<u>Credited Service</u>	Total years and completed days of uninterrupted service with the City as a Firefighter.
<u>Salary</u>	Base compensation, excluding overtime pay, holiday pay, and fringe benefits.
<u>Final Average Compensation</u>	Average of compensation paid during the five (5) highest years of the last ten years of service. The average cannot be less than the three-year average (consecutive years) determined as of May 31, 2013.
<u>Normal Retirement</u>	
Date	Earlier of 1) age 55, 2) age 50 and the completion of 20 years of Credited Service, or 3) the completion of 25 years of credited service, regardless of age. For Members hired after May 31, 2013, the Normal Retirement Date is the earlier of 1) Age 55 with 8 years of Credited Service, or 2) the completion of 25 years of Credited Service, regardless of Age.
Benefit	The sum of the following: a.) 4% of Final Average Compensation (using a three-year average, determined as of May 31, 2013) for each year of Credited Service through May 31, 2013, plus b.) 3% of Final Average Compensation (using a five-year average) for Credited Service after May 31, 2013. Members who had attained Normal Retirement eligibility as of May 31, 2013 continue to accrued benefits under Plan provisions in effect prior to Ordinance 13-13283.
Form of Benefit	Ten Year Certain and Life Annuity (options available).

Early Retirement

Date Age 50, regardless of years of Credited Service. Members hired after May 31, 2013 attain Early Retirement eligibility at age 50 with 8 years of Credited Service.

Benefit Accrued benefit, reduced 3% for each year Early Retirement precedes the earlier of age 55, or the completion of 20 years of Credited Service, regardless of age.

For Members hired after May 31, 2013, the reduction is 3% for each year Early Retirement precedes the earlier of age 55 and 8 years of Credited Service, or the completion of 25 years of Credited Service, regardless of age.

Vesting

Schedule 100% after 5 years of Credited Service. Members hired after May 31, 2013 are fully vested upon the completion of 8 years of Credited Service.

Benefit Amount Member will receive the vested portion of his (her) accrued benefit payable at age 55 (unreduced), or age 50, reduced as for Early Retirement.

Non-vested Members receive a refund of Member contributions accumulated with 5.5% interest.

Disability

Eligibility Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.

Benefit Accrued Benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).

Duration Payable for life with 10 years certain or until recovery (as determined by the Board).

Death Benefits

Pre-Retirement

Vested

Accrued benefit, actuarially reduced for commencement prior to age 55. The benefit is determined as if the participant had retired immediately prior to death and had chosen the 100% joint survivor option.

Non-Vested

Refund of Member contributions, with 5.5% interest.

Post-Retirement

Benefits payable to beneficiary in accordance with option selected at retirement.

Cost of Living Adjustment

Eligibility

Normal and Early service Retirees and Beneficiaries, including Disability Retirees. Vested, terminated Members are not eligible for the COLA.

Amount

3.0% increase per year following one year of payments and the retiree's 50th birthday.

COLAs are not applicable to benefits accrued after May 31, 2013.

Member Contributions

5.0% of Compensation. The contribution rate is 3% for Members hired after May 31, 2013.

City and State Contributions

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Deferred Retirement Option Plan

Eligibility

Normal Retirement eligibility.

Participation

Not to exceed 60 months.

Rate of Return

1.3% annual effective rate, compounded monthly.

Form of Distribution

Cash lump sum at termination of employment.

Board of Trustees

Two Council appointees, two Members of the Plan elected by the Membership, and a fifth Member elected by other 4 and appointed by Council as a ministerial duty.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	379
Transfer in Transit	680,000
Money Market	2,063,944
Cash	224
 Total Cash and Equivalents	 2,744,547
Receivables:	
Member Contributions	2,933
Additional City Contributions	450,423
State Contributions	116,946
 Total Receivable	 570,302
Investments:	
Fixed Income	9,358,474
Equities	31,855,584
Pooled/Common/Commingled Funds:	
Fixed Income	988,963
Equity	1,256,303
Real Estate	1,929,295
 Total Investments	 45,388,619
 Total Assets	 48,703,468
 Total Liabilities	 0
 NET POSITION RESTRICTED FOR PENSIONS	 48,703,468

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2016
Market Value Basis

ADDITIONS

Contributions:

Member	170,589	
Buy-Back	15,021	
City	1,510,540	
City Incentive	57,135	
State	581,196	
Total Contributions		2,334,481
Investment Income:		
Net Increase in Fair Value of Investments	2,920,944	
Interest & Dividends	927,847	
Less Investment Expense ¹	(241,985)	
Net Investment Income		3,606,806
Total Additions		5,941,287

DEDUCTIONS

Distributions to Members:

Benefit Payments	2,110,908	
Lump Sum DROP Distributions	0	
Lump Sum Share Distributions	0	
Refunds of Member Contributions	33,832	
Total Distributions		2,144,740
Administrative Expense		66,876
Total Deductions		2,211,616
Net Increase in Net Position		3,729,671

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year		44,973,797
End of the Year		48,703,468

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2016)

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 Council appointees;
- b. Two Members of the Plan elected by the Membership, and a
- c. Fifth Member elected by other four and appointed by Council as a ministerial duty.

Plan Membership as of October 1, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	44
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	6
Active Plan Members	48
	98

Benefits Provided

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

Normal Retirement:

Date: Earlier of 1) age 55, 2) age 50 and the completion of 20 years of Credited Service, or 3) the completion of 25 years of credited service, regardless of age.

For Members hired after May 31, 2013, the Normal Retirement Date is the earlier of 1) Age 55 with 8 years of Credited Service, or 2) the completion of 25 years of Credited Service, regardless of Age.

Benefit: The sum of the following:

- a) 4% of Final Average Compensation (using a three-year average, determined as of May 31, 2013) for each year of Credited Service through May 31, 2013, plus
- b) 3% of Final Average Compensation (using a five-year average) for Credited Service after May 31, 2013.

Members who had attained Normal Retirement eligibility as of May 31, 2013 continue to accrued benefits under Plan provisions in effect prior to Ordinance 13-13283.

Early Retirement:

Date: Age 50, regardless of years of Credited Service. Members hired after May 31, 2013 attain Early Retirement eligibility at age 50 with 8 years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year Early Retirement precedes the earlier of age 55, or the completion of 20 years of Credited Service, regardless of age.

For Members hired after May 31, 2013, the reduction is 3% for each year Early Retirement precedes the earlier of age 55 and 8 years of Credited Service, or the completion of 25 years of Credited Service, regardless of age.

Vesting:

Schedule: 100% after 5 years of Credited Service. Members hired after May 31, 2013 are fully vested upon the completion of 8 years of Credited Service.

Benefit Amount: Member will receive the vested portion of his (her) accrued benefit payable at age 55 (unreduced), or age 50, reduced as for Early Retirement.

Non-vested Members receive a refund of Member contributions accumulated with 5.5% interest.

Disability:

Eligibility: Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.

Benefit: Accrued Benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).

Pre-Retirement Death Benefits:

Vested: Accrued benefit, actuarially reduced for commencement prior to age 55. The benefit is determined as if the participant had retired immediately prior to death and had chosen the 100% joint survivor option.

Non-Vested: Refund of Member contributions, with 5.5% interest.

Cost of Living Adjustment:

Eligibility: Normal and Early service Retirees and Beneficiaries, including Disability Retirees. Vested, terminated Members are not eligible for the COLA.

Amount: 3.0% increase per year following one year of payments and the retiree’s 50th birthday.

COLAs are not applicable to benefits accrued after May 31, 2013.

Contributions

Member Contributions: 5.0% of Compensation. The contribution rate is 3% for Members hired after May 31, 2013.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2016:

Asset Class	Target Allocation
Domestic Equity	55%
International Equity	10%
Fixed Income	20%
Real Estate	10%
Hedge Funds	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, 2016, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 8.01 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: Normal Retirement eligibility.

Participation: Not to exceed 60 months.

Rate of Return: 1.3% annual effective rate, compounded monthly.

The DROP balance as September 30, 2016 is \$1,201,152.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2016 were as follows:

Total Pension Liability	\$ 61,926,343
Plan Fiduciary Net Position	<u>\$ (48,703,468)</u>
Sponsor's Net Pension Liability	<u>\$ 13,222,875</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	78.65%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2015 updated to September 30, 2016 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	4.00% - 6.00%
Discount Rate	7.50%
Investment Rate of Return	7.50%

Mortality Rate 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 Rate 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 date of the most recent experience study for which significant assumptions are based upon is not available.

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.

For 2016 the inflation rate assumption of the investment advisor was 2.30%.

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, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	7.42%
International Equity	7.00%
Fixed Income	2.42%
Real Estate	3.64%
Hedge Funds	2.76%

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Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.50 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.

	1% Decrease	Current Discount Rate	1% Increase
	6.50%	7.50%	8.50%
Sponsor's Net Pension Liability	\$ 21,632,671	\$ 13,222,875	\$ 6,393,822

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

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	874,002	842,047	981,492
Interest	4,299,570	4,102,672	3,896,369
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	116,520	(247,033)	-
Changes of assumptions	1,240,006	-	-
Contributions - Buy Back	15,021	-	-
Benefit Payments, including Refunds of Employee Contributions	(2,144,740)	(2,063,933)	(1,911,491)
Net Change in Total Pension Liability	4,400,379	2,633,753	2,966,370
Total Pension Liability - Beginning	57,525,964	54,892,211	51,925,841
Total Pension Liability - Ending (a)	<u>\$ 61,926,343</u>	<u>\$ 57,525,964</u>	<u>\$ 54,892,211</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,567,675	1,180,670	1,342,378
Contributions - State	581,196	721,101	871,999
Contributions - Employee	170,589	153,807	177,737
Contributions - Buy Back	15,021	-	-
Net Investment Income	3,606,806	341,202	4,986,191
Benefit Payments, including Refunds of Employee Contributions	(2,144,740)	(2,063,933)	(1,911,491)
Administrative Expense	(66,876)	(63,952)	(55,927)
Net Change in Plan Fiduciary Net Position	3,729,671	268,895	5,410,887
Plan Fiduciary Net Position - Beginning	44,973,797	44,704,902	39,294,015
Plan Fiduciary Net Position - Ending (b)	<u>\$ 48,703,468</u>	<u>\$ 44,973,797</u>	<u>\$ 44,704,902</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 13,222,875</u>	<u>\$ 12,552,167</u>	<u>\$ 10,187,309</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	78.65%	78.18%	81.44%
Covered Employee Payroll ¹	\$ 3,237,715	\$ 4,341,784	\$ 3,573,306
Net Pension Liability as a percentage of Covered Employee Payroll	408.40%	289.10%	285.09%

Notes to Schedule:

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Changes of assumptions:

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.30%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution	2,148,871	1,901,771	2,214,378
Contributions in relation to the Actuarially Determined Contributions	2,148,871	1,901,771	2,214,378
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered Employee Payroll ¹	\$ 3,237,715	\$ 4,341,784	\$ 3,573,306
Contributions as a percentage of Covered Employee Payroll	66.37%	43.80%	61.97%

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2014
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.
Amortization Method: Level Percentage of Pay, Closed.
Remaining Amortization Period: 30 Years.
Mortality: RP-2000 Table projected to the Valuation Date with Scale AA. Disabled lives are set forward 5 years. Based on a study of over 650 public safety funds, RP2000 without projection reflects a 10% margin for future mortality improvements.

Normal Retirement Age: Earlier of 1) age 55, 2) the completion of 25 years of credited service, regardless of age, or 3) the attainment of age 50 with 20 years of credited service. For Members hired after May 31, 2013, the Normal Retirement Date is the earlier of Age 55 with 8 years of Credited Service, or the completion of 25 years of Credited Service, regardless of age.

Early Retirement Age: Attainment of age 50, regardless of years of Credited Service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

Interest Rate: 7.5% per year, compounded annually, net of investment related expenses.
Post Retirement COLA: 3% per year at beginning at age 50 for Service Retirees, Disability Retirees, and surviving Beneficiaries. The COLA is not applicable for Vested Terminated Members, or for benefits accrued after May 31, 2013.

Payroll Growth: 1.0% per year for amortization of the Unfunded Actuarial Accrued Liability. The assumption was 3.2% for the October 1, 2013 valuation.

Actuarial Value of Assets: The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

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Disability Rates:

See table below. It is assumed that 75% of disablements and active Member deaths are service-related.

Age	% Becoming Disabled During the Year
20	0.14%
25	0.15%
30	0.18%
35	0.23%
40	0.30%
45	0.51%
50	1.00%

Salary Increases:

Years of Service	Salary Increase
1	6.0%
2 - 9	5.5%
10-14	5.0%
15-19	4.5%
20+	4.0%

Retirement Rates:

Number of Year After First Eligibility For Normal Retirement	Probability of Normal Retirement
0	25%
1	50%
2	50%
3	50%
4	100%

The retirement rate for Normal Retirement is 100% for participants who have attained age 55 or 25 years of service, regardless of age.

Mortality Rates:

Age	Male	Female
50	0.17%	0.13%
55	0.28%	0.24%
60	0.54%	0.47%
65	1.05%	0.90%
70	1.80%	1.56%
75	3.11%	2.51%
80	5.59%	4.16%

Termination Rates:

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	20.0%
	1	12.0%
	2	8.0%
	3	4.0%
	4	2.0%
20	5+	9.6%
25		5.6%
30		2.8%
35		1.4%
40		0.4%
45+		0.0%

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

	<u>09/30/2016</u>	<u>09/30/2015</u>	<u>09/30/2014</u>
Annual Money-Weighted Rate of Return			
Net of Investment Expense	8.01%	0.77%	12.67%

NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2017)

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 Council appointees;
- b. Two Members of the Plan elected by the Membership, and a
- c. Fifth Member elected by other four and appointed by Council as a ministerial duty.

Full-time employees who are classified as certified Firefighters participate in the Plan as a condition of employment.

Plan Membership as of October 1, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	44
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	6
Active Plan Members	48
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Benefits Provided

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

Normal Retirement:

Date: Earlier of 1) age 55, 2) age 50 and the completion of 20 years of Credited Service, or 3) the completion of 25 years of credited service, regardless of age.

For Members hired after May 31, 2013, the Normal Retirement Date is the earlier of 1) Age 55 with 8 years of Credited Service, or 2) the completion of 25 years of Credited Service, regardless of Age.

Benefit: The sum of the following:

- a) 4% of Final Average Compensation (using a three-year average, determined as of May 31, 2013) for each year of Credited Service through May 31, 2013, plus
- b) 3% of Final Average Compensation (using a five-year average) for Credited Service after May 31, 2013.

Members who had attained Normal Retirement eligibility as of May 31, 2013 continue to accrued benefits under Plan provisions in effect prior to Ordinance 13-13283.

Early Retirement:

Date: Age 50, regardless of years of Credited Service. Members hired after May 31, 2013 attain Early Retirement eligibility at age 50 with 8 years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year Early Retirement precedes the earlier of age 55, or the completion of 20 years of Credited Service, regardless of age.

For Members hired after May 31, 2013, the reduction is 3% for each year Early Retirement precedes the earlier of age 55 and 8 years of Credited Service, or the completion of 25 years of Credited Service, regardless of age.

Vesting:

Schedule: 100% after 5 years of Credited Service. Members hired after May 31, 2013 are fully vested upon the completion of 8 years of Credited Service.

Benefit Amount: Member will receive the vested portion of his (her) accrued benefit payable at age 55 (unreduced), or age 50, reduced as for Early Retirement.

Non-vested Members receive a refund of Member contributions accumulated with 5.5% interest.

Disability:

Eligibility: Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.

Benefit: Accrued Benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).

Pre-Retirement Death Benefits:

Vested: Accrued benefit, actuarially reduced for commencement prior to age 55. The benefit is determined as if the participant had retired immediately prior to death and had chosen the 100% joint survivor option.

Non-Vested: Refund of Member contributions, with 5.5% interest.

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Cost of Living Adjustment:

Eligibility: Normal and Early service Retirees and Beneficiaries, including Disability Retirees. Vested, terminated Members are not eligible for the COLA.

Amount: 3.0% increase per year following one year of payments and the retiree's 50th birthday.

COLAs are not applicable to benefits accrued after May 31, 2013.

Contributions

Member Contributions: 5.0% of Compensation. The contribution rate is 3% for Members hired after May 31, 2013.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Net Pension Liability

The measurement date is September 30, 2016.

The measurement period for the pension expense was October 1, 2015 to September 30, 2016.

The reporting period is October 1, 2016 through September 30, 2017.

The Sponsor's Net Pension Liability was measured as of September 30, 2016.

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, 2015 updated to September 30, 2016 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	4.00% - 6.00%
Discount Rate	7.50%
Investment Rate of Return	7.50%

Mortality Rate 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 Rate 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 date of the most recent experience study for which significant assumptions are based upon is not available.

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.

For 2016 the inflation rate assumption of the investment advisor was 2.30%.

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, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	55%	7.42%
International Equity	10%	7.00%
Fixed Income	20%	2.42%
Real Estate	10%	3.64%
Hedge Funds	5%	2.76%
<u>Total</u>	<u>100%</u>	

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.50 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 Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2016	\$ 57,525,964	\$ 44,973,797	\$ 12,552,167
Changes for a Year:			
Service Cost	874,002	-	874,002
Interest	4,299,570	-	4,299,570
Share Plan Allocation	-	-	-
Differences between Expected and Actual Experience	116,520	-	116,520
Changes of assumptions	1,240,006	-	1,240,006
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,567,675	(1,567,675)
Contributions - State	-	581,196	(581,196)
Contributions - Employee	-	170,589	(170,589)
Contributions - Buy Back	15,021	15,021	-
Net Investment Income	-	3,606,806	(3,606,806)
Benefit Payments, including Refunds of Employee Contributions	(2,144,740)	(2,144,740)	-
Administrative Expense	-	(66,876)	66,876
Net Changes	4,400,379	3,729,671	670,708
Reporting Period Ending September 30, 2017	\$ 61,926,343	\$ 48,703,468	\$ 13,222,875

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.50%	7.50%	8.50%
Sponsor's Net Pension Liability	\$ 21,632,671	\$ 13,222,875	\$ 6,393,822

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, 2017, the Sponsor will recognize a Pension Expense of \$2,028,447.

On September 30, 2017, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	97,100	164,688
Changes of assumptions	1,033,339	-
Net difference between Projected and Actual Earnings on Pension Plan investments	812,755	-
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 164,688

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, 2017.

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:			
2018	\$	336,230	
2019	\$	336,231	
2020	\$	740,874	
2021	\$	139,083	
2022	\$	226,088	
Thereafter	\$	-	

Payable to the Pension Plan

On September 30, 2016, the Sponsor reported a payable of \$450,423 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2016.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending	09/30/2017	09/30/2016	09/30/2015
Measurement Date	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	874,002	842,047	981,492
Interest	4,299,570	4,102,672	3,896,369
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	116,520	(247,033)	-
Changes of assumptions	1,240,006	-	-
Contributions - Buy Back	15,021	-	-
Benefit Payments, including Refunds of Employee Contributions	(2,144,740)	(2,063,933)	(1,911,491)
Net Change in Total Pension Liability	4,400,379	2,633,753	2,966,370
Total Pension Liability - Beginning	57,525,964	54,892,211	51,925,841
Total Pension Liability - Ending (a)	<u>\$ 61,926,343</u>	<u>\$ 57,525,964</u>	<u>\$ 54,892,211</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,567,675	1,180,670	1,342,378
Contributions - State	581,196	721,101	871,999
Contributions - Employee	170,589	153,807	177,737
Contributions - Buy Back	15,021	-	-
Net Investment Income	3,606,806	341,202	4,986,191
Benefit Payments, including Refunds of Employee Contributions	(2,144,740)	(2,063,933)	(1,911,491)
Administrative Expense	(66,876)	(63,952)	(55,927)
Net Change in Plan Fiduciary Net Position	3,729,671	268,895	5,410,887
Plan Fiduciary Net Position - Beginning	44,973,797	44,704,902	39,294,015
Plan Fiduciary Net Position - Ending (b)	<u>\$ 48,703,468</u>	<u>\$ 44,973,797</u>	<u>\$ 44,704,902</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 13,222,875</u>	<u>\$ 12,552,167</u>	<u>\$ 10,187,309</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	78.65%	78.18%	81.44%
Covered Employee Payroll ¹	\$ 3,237,715	\$ 4,341,784	\$ 3,573,306
Net Pension Liability as a percentage of Covered Employee Payroll	408.40%	289.10%	285.09%

Notes to Schedule:

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Changes of assumptions:

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.30%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution Contributions in relation to the Actuarially Determined Contributions	2,148,871	1,901,771	2,214,378
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered Employee Payroll ¹	\$ 3,237,715	\$ 4,341,784	\$ 3,573,306
Contributions as a percentage of Covered Employee Payroll	66.37%	43.80%	61.97%

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2014

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.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	30 Years.
Mortality:	RP-2000 Table projected to the Valuation Date with Scale AA. Disabled lives are set forward 5 years. Based on a study of over 650 public safety funds, RP2000 without projection reflects a 10% margin for future mortality improvements.
Normal Retirement Age:	Earlier of 1) age 55, 2) the completion of 25 years of credited service, regardless of age, or 3) the attainment of age 50 with 20 years of credited service. For Members hired after May 31, 2013, the Normal Retirement Date is the earlier of Age 55 with 8 years of Credited Service, or the completion of 25 years of Credited Service, regardless of age.
Early Retirement Age:	Attainment of age 50, regardless of years of Credited Service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.
Interest Rate:	7.5% per year, compounded annually, net of investment related expenses.
Post Retirement COLA:	3% per year at beginning at age 50 for Service Retirees, Disability Retirees, and surviving Beneficiaries. The COLA is not applicable for Vested Terminated Members, or for benefits accrued after May 31, 2013.
Payroll Growth:	1.0% per year for amortization of the Unfunded Actuarial Accrued Liability. The assumption was 3.2% for the October 1, 2013 valuation.
Actuarial Value of Assets:	The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

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Disability Rates: See table below. It is assumed that 75% of disablements and active Member deaths are service-related.

Age	% Becoming Disabled During the Year
20	0.14%
25	0.15%
30	0.18%
35	0.23%
40	0.30%
45	0.51%
50	1.00%

Salary Increases:

Years of Service	Salary Increase
1	6.0%
2 - 9	5.5%
10-14	5.0%
15-19	4.5%
20+	4.0%

Retirement Rates:

Number of Year After First Eligibility For Normal	Probability of Normal Retirement
0	25.00%
1	50.00%
2	50.00%
3	50.00%
4	100.00%

The retirement rate for Normal Retirement is 100% for participants who have attained age 55 or 25 years of service, regardless of age.

Mortality Rates:

Age	Male	Female
50	0.17%	0.13%
55	0.28%	0.24%
60	0.54%	0.47%
65	1.05%	0.90%
70	1.80%	1.56%
75	3.11%	2.51%
80	5.59%	4.16%

Termination Rates:

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	20.0%
	1	12.0%
	2	8.0%
	3	4.0%
	4	2.0%
20	5+	9.6%
25		5.6%
30		2.8%
35		1.4%
40		0.4%
45+		0.0%

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 10,187,309	\$ 1,618,571	\$ 1,901,771	\$ -
Employer and State contributions made after 09/30/2015	-	-	2,148,871	-
Total Pension Liability Factors:				
Service Cost	842,047	-	-	842,047
Interest	4,102,672	-	-	4,102,672
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(247,033)	247,033	-	-
Current year amortization of experience difference	-	(41,172)	-	(41,172)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments	(2,063,933)	-	-	(2,063,933)
Net change	<u>2,633,753</u>	<u>205,861</u>	<u>2,148,871</u>	<u>2,839,614</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,180,670	-	(1,180,670)	-
Contributions - State	721,101	-	(721,101)	-
Contributions - Employee	153,807	-	-	(153,807)
Net Investment Income	3,350,156	-	-	(3,350,156)
Difference between projected and actual earnings on Pension Plan investments	(3,008,954)	-	3,008,954	-
Current year amortization	-	(404,642)	(601,790)	197,148
Benefit Payments	(2,063,933)	-	-	2,063,933
Administrative Expenses	(63,952)	-	-	63,952
Net change	<u>268,895</u>	<u>(404,642)</u>	<u>505,393</u>	<u>(1,178,930)</u>
Ending Balance	<u>\$ 12,552,167</u>	<u>\$ 1,419,790</u>	<u>\$ 4,556,035</u>	<u>\$ 1,660,684</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2017

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 12,552,167	\$ 1,419,790	\$ 4,556,035	\$ -
Employer and State contributions made after 09/30/2016	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	874,002	-	-	874,002
Interest	4,299,570	-	-	4,299,570
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	15,021	-	-	15,021
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	116,520	-	116,520	-
Current year amortization of experience difference	-	(41,173)	(19,420)	(21,753)
Change in assumptions about future economic or demographic factors or other inputs	1,240,006	-	1,240,006	-
Current year amortization of change in assumptions	-	-	(206,667)	206,667
Benefit Payments	(2,144,740)	-	-	(2,144,740)
Net change	<u>4,400,379</u>	<u>(41,173)</u>	<u>1,130,439</u>	<u>3,228,767</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,567,675	-	(1,567,675)	-
Contributions - State	581,196	-	(581,196)	-
Contributions - Employee	170,589	-	-	(170,589)
Contributions - Buy Back	15,021	-	-	(15,021)
Net Investment Income	3,377,642	-	-	(3,377,642)
Difference between projected and actual earnings on Pension Plan investments	229,164	229,164	-	-
Current year amortization	-	(450,475)	(601,791)	151,316
Benefit Payments	(2,144,740)	-	-	2,144,740
Administrative Expenses	(66,876)	-	-	66,876
Net change	<u>3,729,671</u>	<u>(221,311)</u>	<u>(2,750,662)</u>	<u>(1,200,320)</u>
Ending Balance	<u>\$ 13,222,875</u>	<u>\$ 1,157,306</u>	<u>TBD</u>	<u>\$ 2,028,447</u>

* Employer Contributions subsequent to the measurement date made after September 30, 2016 but made on or before September 30, 2017 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ (2,023,214)	5	\$ (404,643)	\$ (404,642)	\$ (404,643)	\$ (404,643)	\$ (404,643)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 3,008,954	5	\$ -	\$ 601,790	\$ 601,791	\$ 601,791	\$ 601,791	\$ 601,791	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (229,164)	5	\$ -	\$ -	\$ (45,832)	\$ (45,833)	\$ (45,833)	\$ (45,833)	\$ (45,833)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (404,643)	\$ 197,148	\$ 151,316	\$ 151,315	\$ 151,315	\$ 555,958	\$ (45,833)	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ -	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ -	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 1,240,006	6	\$ -	\$ -	\$ 206,667	\$ 206,667	\$ 206,668	\$ 206,668	\$ 206,668	\$ 206,668	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ -	\$ 206,667	\$ 206,667	\$ 206,668	\$ 206,668	\$ 206,668	\$ 206,668	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ -	5.90	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (247,033)	6.00	\$ -	\$ (41,172)	\$ (41,173)	\$ (41,172)	\$ (41,172)	\$ (41,172)	\$ (41,172)	\$ -	\$ -	\$ -	\$ -
2016	\$ 116,520	6.00	\$ -	\$ -	\$ 19,420	\$ 19,420	\$ 19,420	\$ 19,420	\$ 19,420	\$ 19,420	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ (41,172)	\$ (21,753)	\$ (21,752)	\$ (21,752)	\$ (21,752)	\$ (21,752)	\$ 19,420	\$ -	\$ -	\$ -