

CITY OF AVON PARK  
FIREFIGHTERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2020

GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2018



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

May 24, 2019

Board of Trustees  
c/o Ms. Carol Knapp, Administrator  
Firefighters' Pension Board  
2404 West Russ Road  
Avon Park, FL 33825

Re: City of Avon Park Firefighters' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Avon Park Firefighters' Retirement System. Included are the related results for GASB Statements No. 67 and No. 68. The funding 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. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have 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 reflect 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 the valuations, 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. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Avon Park, 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 total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2018 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.


The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet 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 Avon Park, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' 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 us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778

By:   
\_\_\_\_\_  
Drew D. Ballard, EA, MAAA  
Enrolled Actuary #17-8193

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Avon Park Firefighters' Retirement System, performed as of October 1, 2018, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2020. Funding requirements assume a lump sum City deposit on October 1, 2019.

The contribution requirements, compared with those developed in the October 1, 2017, actuarial valuation, are as follows:

Valuation Date	10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2019</u>
Minimum Required Contribution	\$418,766	\$484,693
Member Contributions (Est.)	35,670	39,040
City And State Required Contribution	383,096	445,653
State Contribution (Est.) <sup>1</sup>	39,835	39,835
City Required Contribution <sup>2</sup>	\$343,261	\$405,818

<sup>1</sup> Reflects the "default methodology" to calculate use of Chapter 175 premium tax revenues, based on the actual State Monies received during calendar year 2018. Under this approach, the City may use up to \$43,902.19 (as determined with the 2/22/2018 study), plus 50% of the State Monies over that amount, for determining its minimum funding requirements. The remaining 50% above \$43,902.19 will be allocated to the Share Plan.

<sup>2</sup> Please note that the City has access to a prepaid contribution of \$15,675.12 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2019.

Experience since the prior valuation was more favorable than expected, relative to the Plan's actuarial assumptions. The principal source of favorable experience is attributable to average pensionable earnings that are approximately 6% lower than amounts utilized for the October 1, 2017 valuation. This gain was partially offset by a 6.46% investment return (Actuarial Asset basis), falling short of the 7.75% assumption, in addition to unfavorable turnover experience.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There were no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

In conjunction with this valuation, several changes in methods and assumption have been incorporated, based on results of the October 19, 2018 Experience Study. Please refer to the Actuarial Assumptions and Methods section of this report for details.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	14	14	14
Service Retirees	12	12	11
DROP Retirees	1	1	1
Beneficiaries	0	0	0
Disability Retirees	0	0	0
Terminated Vested	<u>1</u>	<u>1</u>	<u>1</u>
<b>Total</b>	<b>28</b>	<b>28</b>	<b>27</b>
Total Annual Payroll	\$670,039	\$667,062	\$736,601
Payroll Under Assumed Ret. Age	670,039	667,062	736,601
Annual Rate of Payments to:			
Service Retirees	387,051	387,051	341,835
DROP Retirees	50,994	50,994	40,090
Beneficiaries	0	0	0
Disability Retirees	0	0	0
Terminated Vested	17,796	17,796	17,796
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	6,036,904	6,036,904	5,930,955
Market Value (MVA) <sup>1</sup>	6,198,473	6,198,473	5,943,011
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	3,193,885	2,954,453	3,572,632
Disability Benefits	48,222	40,337	42,323
Death Benefits	26,737	21,888	23,055
Vested Benefits	15,880	268,961	286,695
Refund of Contributions	9,406	10,638	8,848
Service Retirees	4,479,263	4,382,808	3,862,023
DROP Retirees <sup>1</sup>	670,489	655,029	736,149
Beneficiaries	0	0	0
Disability Retirees	0	0	0
Terminated Vested	49,703	46,461	43,019
Share Plan Balances <sup>1</sup>	<u>42,848</u>	<u>42,848</u>	<u>43,839</u>
<b>Total</b>	<b>8,536,433</b>	<b>8,423,423</b>	<b>8,618,583</b>

C. Liabilities - (Continued)	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	8,013,725	7,191,757	7,423,943
Present Value of Future Member Contributions	400,686	359,588	371,197
Normal Cost (Retirement)	114,356	105,368	117,955
Normal Cost (Disability)	2,516	2,246	2,506
Normal Cost (Death)	1,014	830	941
Normal Cost (Vesting)	2,008	12,681	12,487
Normal Cost (Refunds)	<u>1,111</u>	<u>1,391</u>	<u>1,202</u>
Total Normal Cost	121,005	122,516	135,091
Present Value of Future Normal Costs	1,369,041	1,262,474	1,320,993
Accrued Liability (Retirement)	1,884,283	1,861,332	2,423,779
Accrued Liability (Disability)	20,108	17,364	18,451
Accrued Liability (Death)	14,892	13,141	14,165
Accrued Liability (Vesting)	5,221	141,310	156,165
Accrued Liability (Refunds)	585	656	0
Accrued Liability (Inactives) <sup>1</sup>	5,199,455	5,084,298	4,641,191
Share Plan Balances <sup>1</sup>	<u>42,848</u>	<u>42,848</u>	<u>43,839</u>
Total Actuarial Accrued Liability (EAN AL)	7,167,392	7,160,949	7,297,590
Unfunded Actuarial Accrued Liability (UAAL)	1,130,488	1,124,045	1,366,635
Funded Ratio (AVA / EAN AL)	84.2%	84.3%	81.3%



D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	5,242,303	5,127,146	4,685,030
Actives	603,495	578,737	1,003,358
Member Contributions	<u>265,796</u>	<u>265,796</u>	<u>280,324</u>
Total	6,111,594	5,971,679	5,968,712
Non-vested Accrued Benefits	<u>141,390</u>	<u>127,499</u>	<u>102,756</u>
Total Present Value Accrued Benefits (PVAB)	6,252,984	6,099,178	6,071,468
Funded Ratio (MVA / PVAB)	99.1%	101.6%	97.9%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	153,806	0	
New Accrued Benefits	0	180,632	
Benefits Paid	0	(600,203)	
Interest	0	447,281	
Other	<u>0</u>	<u>0</u>	
Total	153,806	27,710	

	New Assump	Old Assump	
Valuation Date	10/1/2018	10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2020</u>	<u>9/30/2019</u>

#### E. Pension Cost

Normal Cost <sup>2</sup>	\$128,834	\$129,867	\$143,196
Administrative Expenses <sup>2</sup>	71,887	71,570	74,925
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 20 years (as of 10/1/2018) <sup>2</sup>	218,045	217,931	266,572
Minimum Required Contribution	418,766	419,368	484,693
Expected Member Contributions <sup>2</sup>	35,670	35,354	39,040
Expected City and State Contribution	383,096	384,014	445,653

#### F. Past Contributions

Plan Years Ending:	<u>9/30/2018</u>
City and State Requirement	367,525
Actual Contributions Made:	
Members (excluding buyback)	31,510
City	327,690
State	<u>39,835</u>
Total	399,035

G. Net Actuarial (Gain)/Loss (147,079)

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2018 and 9/30/2017.

<sup>2</sup> Contribution rates include an assumed salary increase, based on a beginning of year funding method.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2018	1,130,488
2019	995,120
2020	904,854
2025	594,826
2029	307,842
2034	28,864
2038	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2018	-6.14%	6.00%
Year Ended 9/30/2017	11.95%	6.00%
Year Ended 9/30/2016	3.41%	6.00%
Year Ended 9/30/2015	1.04%	6.00%
Year Ended 9/30/2014	1.11%	6.00%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2018	8.68%	6.46%	7.75%
Year Ended 9/30/2017	11.81%	6.78%	7.75%
Year Ended 9/30/2016	6.51%	6.04%	7.75%
Year Ended 9/30/2015	-0.74%	8.35%	7.75%
Year Ended 9/30/2014	9.97%	8.48%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2018	\$670,039
	10/1/2008	738,078
(b) Total Increase		-9.22%
(c) Number of Years		10.00
(d) Average Annual Rate		-0.96%

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.



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Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778

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

Mr. Steve Bardin  
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, 2017	\$1,366,635
(2)	Sponsor Normal Cost developed as of October 1, 2017	98,261
(3)	Expected administrative expenses for the year ended September 30, 2018	70,684
(4)	Expected interest on (1), (2) and (3)	116,268
(5)	Sponsor contributions to the System during the year ended September 30, 2018	367,525
(6)	Expected interest on (5)	13,199
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2018 (1)+(2)+(3)+(4)-(5)-(6)	1,271,124
(8)	Change to UAAL due to Assumption Change	6,443
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(147,079)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2018	1,130,488

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2018 Amount</u>	<u>Amortization Amount</u>
method change	10/1/2004	16	141,937	14,443
prior losses	10/1/2004	10	116,723	15,819
benefit change	10/1/2004	16	279,417	28,433
benefit change	10/1/2005	17	15,174	1,496
actuarial loss	10/1/2005	10	95,636	12,961
actuarial loss	10/1/2006	10	58,558	7,936
actuarial gain	10/1/2007	10	(29,573)	(4,008)
method change	10/1/2008	10	(87,102)	(11,804)
benefit change	10/1/2008	20	(8,309)	(758)
actuarial loss	10/1/2009	1	51,400	51,400
actuarial gain	10/1/2010	2	(36,337)	(18,825)
assumption change	10/1/2010	12	205,548	24,719
actuarial loss	10/1/2011	3	167,113	59,778
actuarial loss	10/1/2012	4	134,429	37,336
actuarial gain	10/1/2013	5	(67,794)	(15,587)
actuarial gain	10/1/2014	6	(52,590)	(10,422)
actuarial gain	10/1/2015	7	(35,173)	(6,177)
assumption change	10/1/2016	18	210,893	20,212
actuarial gain	10/1/2016	8	(95,450)	(15,159)

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2018 <u>Amount</u>	Amortization <u>Amount</u>
actuarial loss	10/1/2017	9	248,842	36,289
state monies credit	10/1/2017	19	(42,218)	(3,943)
actuarial gain	10/1/2018	10	(147,079)	(19,932)
assumption change	10/1/2018	20	<u>6,443</u>	<u>588</u>
			1,130,488	204,795

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2017	\$1,366,635
(2) Expected UAAL as of October 1, 2018	1,271,124
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	74,811
Salary Increases	(302,998)
Active Decrements	53,260
Inactive Mortality	26,041
Other	<u>1,807</u>
Increase in UAAL due to (Gain)/Loss	(147,079)
Assumption Changes	<u>6,443</u>
(4) Actual UAAL as of October 1, 2018	\$1,130,488

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

*Healthy Active Lives:*

**Female:** RP2000 Generational, 100% Combined Healthy White Collar, Scale BB  
**Male:** RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB

*Healthy Inactive 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 assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2018 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.50% (prior year 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.

Salary Increases

Salary Scale	
Service	Rate
0	10.00%
1	10.00%
2	7.00%
3-19	4.50%
20+	4.00%



Rates shown on the prior page were adopted as the result of the October 19, 2018 Experience Study. Prior valuations utilized a flat 6.0% assumption.

Administrative Expenses

\$67,519 annually, based on actual expenses incurred in the prior fiscal year.

Termination Rate

% Terminating During the Year	
Service	Rate
0-14	2.5%
15+	0.0%

The above rates were adopted as the result of the October 19, 2018 Experience Study. Prior valuations utilized an age-based schedule.

Disability Rate

% Becoming Disabled During the Year	
Age	Rate
20	0.03%
25	0.03%
30	0.04%
35	0.05%
40	0.07%
45	0.10%
50	0.18%
55	0.36%
60	0.90%

The above rates were reviewed and maintained as part of the October 19, 2018 Experience Study; 75% of Disability Retirements are assumed to be service-connected.

Retirement Age

% Retiring During the Year (10-24 Years of Service)		% Retiring During the Year (>= 25 Years of Service)	
Age	Rate	Service	Rate
55-56	50.0%	25-27	25.0%
57+	100.0%	28	50.0%
		29+	100.0%

The above rates were adopted as the result of the October 19, 2018 Experience Study. Prior valuations assumed 100% retirement upon first eligibility (with assumed one year deferral if still employed on the valuation date).

Early Retirement

0% for each year of eligibility, based on results of the October 19, 2018 Experience Study. Prior valuations assumed 5% per year.

Payroll Growth

None for amortization of the Unfunded Actuarial Accrued Liability.

Funding Method

Entry Age Normal Actuarial Cost Method. Based on the current average, a salary load of 6.47% has been applied for projecting funding requirements one additional year. No interest load is utilized, assuming a City lump sum deposit at the beginning of each fiscal year.

Actuarial Asset Method

Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric four-year average Market Value return (net of fees). It is possible that over time this technique will produce an insignificant bias above or below Market Value of Assets.

## GLOSSARY

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.

Entry Age Normal Cost Method - 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.

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.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1996	21,354.41	_____%
1997	29,663.94	38.9%
1998	29,471.20	-0.6%
1999	30,129.69	2.2%
2000	29,724.81	-1.3%
2001	32,680.82	9.9%
2002	33,418.97	2.3%
2003	39,336.31	17.7%
2004	43,308.17	10.1%
2005	42,994.41	-0.7%
2006	45,810.47	6.5%
2007	52,310.20	14.2%
2008	53,776.31	2.8%
2009	42,634.27	-20.7%
2010	41,469.47	-2.7%
2011	39,666.57	-4.3%
2012	45,079.54	13.6%
2013	43,902.19	-2.6%
2014	46,301.17	5.5%
2015	41,576.96	-10.2%
2016	43,087.46	3.6%
2017	49,927.19	15.9%
2018	39,835.28	-20.2%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Prepaid Benefits	32,254.29	32,254.29
Money Market	16,000.00	16,000.00
Cash	32,711.74	32,711.74
 Total Cash and Equivalents	 80,966.03	 80,966.03
Receivables:		
Member Contributions in Transit	1,108.87	1,108.87
State Contributions	39,835.28	39,835.28
Investment Income	15,018.79	15,018.79
 Total Receivable	 55,962.94	 55,962.94
Investments:		
U. S. Bonds and Bills	311,914.48	306,766.02
Federal Agency Guaranteed Securities	365,811.04	354,876.25
Corporate Bonds	692,092.34	685,745.33
Mutual Funds:		
Fixed Income	347,575.44	320,798.96
Equity	3,130,757.43	3,895,613.48
Pooled/Common/Commingled Funds:		
Real Estate	500,000.00	514,809.33
 Total Investments	 5,348,150.73	 6,078,609.37
 Total Assets	 5,485,079.70	 6,215,538.34
 <u>LIABILITIES</u>		
Payables:		
Investment Expenses	1,390.40	1,390.40
Prepaid City Contribution	15,675.12	15,675.12
 Total Liabilities	 17,065.52	 17,065.52
 NET POSITION RESTRICTED FOR PENSIONS	 5,468,014.18	 6,198,472.82

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

Contributions:			
Member		31,509.96	
City		327,689.72	
State		39,835.28	
Total Contributions			399,034.96
Investment Income:			
Net Realized Gain (Loss)	184,533.54		
Unrealized Gain (Loss)	133,316.86		
Net Increase in Fair Value of Investments		317,850.40	
Interest & Dividends		232,667.80	
Less Investment Expense <sup>1</sup>		(26,368.91)	
Net Investment Income			524,149.29
Total Additions			923,184.25

DEDUCTIONS

Distributions to Members:			
Benefit Payments		355,599.48	
Lump Sum DROP Distributions		234,583.38	
Lump Sum Share Distributions		10,020.36	
Refunds of Member Contributions		0.00	
Total Distributions			600,203.22
Administrative Expense			67,518.74
Total Deductions			667,721.96
Net Increase in Net Position			255,462.29
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			5,943,010.53
End of the Year			6,198,472.82

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

ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2018

Actuarial Assets for funding purposes are developed by increasing the Actuarial Assets used in the most recent actuarial valuation of the Fund by the average annual market value rate of return (net of investment related expenses) for the past four years. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return <sup>1</sup>	
09/30/2015	-0.74%	
09/30/2016	6.51%	
09/30/2017	11.81%	
09/30/2018	8.68%	
Annualized Rate of Return for prior four (4) years:		6.46%
(A) 10/01/2017 Actuarial Assets:		\$5,930,955.35
(I) Net Investment Income:		
1. Interest and Dividends	232,667.80	
2. Realized Gains (Losses)	184,533.54	
3. Change in Actuarial Value	(16,196.93)	
4. Investment Related Expenses	(26,368.91)	
Total		374,635.50
(B) 10/01/2018 Actuarial Assets:		\$6,036,903.85
Actuarial Asset Rate of Return = 2I/(A+B-I):		6.46%
10/01/2018 Limited Actuarial Assets:		\$6,036,903.85
10/01/2018 Market Value of Assets:		\$6,198,472.82
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		(\$74,811.11)

<sup>1</sup>Market Value Basis, net of investment related expenses.



CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2018  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	31,509.96	
City	327,689.72	
State	39,835.28	
 Total Contributions		 399,034.96
Earnings from Investments:		
Interest & Dividends	232,667.80	
Net Realized Gain (Loss)	184,533.54	
Change in Actuarial Value	(16,196.93)	
 Total Earnings and Investment Gains		 401,004.41

EXPENDITURES

Distributions to Members:		
Benefit Payments	355,599.48	
Lump Sum DROP Distributions	234,583.38	
Lump Sum Share Distributions	10,020.36	
Refunds of Member Contributions	0.00	
 Total Distributions		 600,203.22
Expenses:		
Investment related <sup>1</sup>	26,368.91	
Administrative	67,518.74	
 Total Expenses		 93,887.65
 Change in Net Assets for the Year		 105,948.50
 Net Assets Beginning of the Year		 5,930,955.35
 Net Assets End of the Year <sup>2</sup>		 6,036,903.85

<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.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2017 to September 30, 2018

Beginning of the Year Balance	200,264.94
Plus Additions	57,275.22
Investment Return Earned	7,422.42
Less Distributions	(234,583.38)
End of the Year Balance	30,379.20

Note: Assumed Normal Form of payment for a member who has not made a choice at 9/30/18. Investment returns for this individual based on this assumption.

SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY  
October 1, 2017 through September 30, 2018

9/30/2017 Balance	43,839
Prior Year Adjustment	4,813
Plus Additions	0
Investment Return Earned (est.)	4,223
Administrative Fees (est.)	(7)
Less Distributions	(10,020)
9/30/2018 Balance (est.)	42,848

RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2018

(1) Required City and State Contributions	\$367,525.00
(2) Less Allowable State Contribution	<u>(39,835.28)</u>
(3) Required City Contribution for Fiscal 2018	327,689.72
(4) Less 2017 Prepaid Contribution	(12,935.84)
(5) Less Actual City Contributions	<u>(330,429.00)</u>
(6) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2018	(\$15,675.12)

STATISTICAL DATA

	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>
<u>Actives</u>				
Number	13	10	14	14
Average Current Age	39.8	40.3	35.2	34.8
Average Age at Employment	25.0	23.6	24.7	25.5
Average Past Service	14.8	16.7	10.5	9.3
Average Annual Salary	\$52,024	\$53,194	\$52,614	\$47,860
<u>Service Retirees</u>				
Number	8	9	11	12
Average Current Age	67.9	67.6	63.5	64.1
Average Annual Benefit	\$26,909	\$27,718	\$31,076	\$32,254
<u>DROP Retirees</u>				
Number	2	2	1	1
Average Current Age	55.5	56.5	58.9	53.4
Average Annual Benefit	\$40,275	\$38,427	\$40,090	\$50,994
<u>Beneficiaries</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Disability Retirees</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Terminated Vested</u>				
Number	1	2	1	1
Average Current Age	53.7	44.5	35.3	36.3
Average Annual Benefit	\$14,278	\$16,037	\$17,796	\$17,796

## 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	1	2	0	0	0	0	0	0	0	0	0	3
25 - 29	2	0	0	0	0	0	0	0	0	0	0	2
30 - 34	0	0	0	0	0	0	1	0	0	0	0	1
35 - 39	0	0	0	0	0	0	2	1	0	0	0	3
40 - 44	0	0	0	0	0	0	1	3	0	0	0	4
45 - 49	0	1	0	0	0	0	0	0	0	0	0	1
50 - 54	0	0	0	0	0	0	0	0	0	0	0	0
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
<b>Total</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2017	14
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
ii. Non-vested or full lump sum distribution received	(2)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>(1)</u>
g. Continuing participants	11
h. New entrants	<u>3</u>
i. Total active life participants in valuation	14

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	11	1	0	0	1	13
Retired	1	(1)	0	0	0	0
DROP	0	1	0	0	0	1
Vested Deferred	0	0	0	0	0	0
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
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	12	1	0	0	1	14

SUMMARY OF CURRENT PLAN  
(Through Ordinance 08-17)

<u>EFFECTIVE DATE OF RESTATEMENT</u>	December 31, 1999
<u>LATEST AMENDMENT</u>	March 27, 2017
<u>CREDITED SERVICE</u>	Years and fractional parts of years of service with the City as a Firefighter.
<u>SALARY</u>	Total compensation reportable on form W-2, excluding lump sum payments of accrued sick leave and vacation pay, but including all tax deferred, tax sheltered, and tax exempt items of income. For service earned after March 12, 2014, Salary shall not include payments for overtime in excess of 300 hours per year.
<u>AVERAGE FINAL COMPENSTATION</u>	Average Salary of the 5 highest years during the last 10.
<u>NORMAL RETIREMENT</u>	
Eligibility	Earlier of: a) Age 55 and the completion of 10 years of Credited Service, or b) Age 52 and 25 years of Credited Service.
Benefit Amount	3.16% of Average Final Compensation times Credited Service. For Members hired after October 31, 2013, the benefit accrual rate is 2.0% for each year of Credited Service.
Form of Benefit	10 year certain and life thereafter (options available).
<u>EARLY RETIREMENT</u>	
Eligibility	Age 50 and 10 years of Credited Service.
Benefit Amount	Accrued benefit, reduced 3% for each year that early retirement precedes normal retirement.
<u>PRE-RETIREMENT DEATH</u>	
Non-Vested	Refund of Member's Accumulated Contributions.
Vested	Beneficiary to receive the Member's accrued benefit for 10 years.



DISABILITY

Eligibility	a. Non-Service Incurred: 10 years of Credited Service. b. Service Incurred: Covered from Date of Employment. c. Total and permanent disability as determined by the Board of Trustees.
Benefit Amount	Accrued benefit, but not less than 42% of Average Final Compensation for service incurred disabilities. Optional forms are available.

VESTING (TERMINATION)

Less than 10 years of Credited Service	Refund of Member Contributions without interest.
10 years or more	Accrued benefit payable at Member's otherwise Early (reduced) or Normal Retirement Date, or a refund of Member Contributions.

COST-OF-LIVING ADJUSTMENT

All retirees, including disability retirees, and beneficiaries, but excluding vested terminated Members, who complete at least 15 years of Credited Service receive five annual 3.0% increase adjustments in their benefits each October 1 beginning the later of age 58 and one year after retirement.

CONTRIBUTIONS

Employee	5.0% of Salary.
Premium Tax	1.85% tax on premiums for fire insurance.
City	Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability, if any, as provided in Part VII of Chapter 112, Florida Statutes, but in no event less than 5% of the total Salary of the Members.

DEFERRED RETIREMENT  
OPTION PLAN

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Not to exceed 60 months.
Rate of Return	At Member's election either: a) 6.5% annual interest, compounded monthly, or b) actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs) credited each fiscal quarter.
Distribution	Cash lump sum (options available) at termination of employment.

BOARD OF TRUSTEES

Two legal residents appointed by the City Council, two Members of the System elected by the other covered Members, and a fifth Member elected by the other 4 and appointed by City Council.

CHAPTER 175 SHARE PLAN

Share accounts are established as of September 30, 2017.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Prepaid Benefits	32,254
Money Market	16,000
Cash	32,712
Total Cash and Equivalents	80,966
Receivables:	
Member Contributions in Transit	1,109
State Contributions	39,835
Investment Income	15,019
Total Receivable	55,963
Investments:	
U. S. Bonds and Bills	306,766
Federal Agency Guaranteed Securities	354,876
Corporate Bonds	685,745
Mutual Funds:	
Fixed Income	320,799
Equity	3,895,614
Real Estate	514,809
Total Investments	6,078,609
Total Assets	6,215,538
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	1,390
Total Liabilities	1,390
NET POSITION RESTRICTED FOR PENSIONS	6,214,148

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

## Contributions:

Member	31,510	
City	330,429	
State	39,835	
 Total Contributions		 401,774
 Investment Income:		
Net Increase in Fair Value of Investments	317,851	
Interest & Dividends	232,668	
Less Investment Expense <sup>1</sup>	(26,369)	
 Net Investment Income		 524,150
 Total Additions		 925,924

DEDUCTIONS

## Distributions to Members:

Benefit Payments	355,600	
Lump Sum DROP Distributions	234,583	
Lump Sum Share Distributions	10,020	
Refunds of Member Contributions	0	
 Total Distributions		 600,203
 Administrative Expense		 67,519
 Total Deductions		 667,722
 Net Increase in Net Position		 258,202
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		5,955,946
 End of the Year		 6,214,148

<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, 2018)

Plan Description

*Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two legal residents appointed by the City Council, two Members of the System elected by the other covered Members, and a fifth Member elected by the other four and appointed by City Council.

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	14
	27

*Benefits Provided*

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

Normal Retirement:

Eligibility: Earlier of: a) Age 55 and the completion of 10 years of Credited Service, or b) Age 52 and 25 years of Credited Service.

Benefit Amount: 3.16% of Average Final Compensation times Credited Service. For Members hired after October 31, 2013, the benefit accrual rate is 2.0% for each year of Credited Service.

Early Retirement:

Eligibility: Age 50 and 10 years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year that early retirement precedes normal retirement.

Pre-Retirement Death Benefits:

Non-Vested: Return of Member's Accumulated Contributions.

Vested: Beneficiary to receive the Member's accrued benefit for 10 years.

Disability:

Eligibility: a. Non-Service Incurred: 10 years of Credited Service.

b. Service Incurred: Covered from Date of Employment.

c. Total and permanent disability as determined by the Board of Trustees.

Benefit amount: Accrued benefit, but not less than 42% of Average Final Compensation for service incurred disabilities.

Optional forms are available.

Vesting (Termination):

Less than 10 years of Credited Service: Refund of Member Contributions without interest.

10 years or more: Accrued benefit payable at Member's otherwise Early (reduced) or Normal Retirement Date, or a refund of Member Contributions.

Cost-Of-Living Adjustments:

All retirees, including disability retirees, and beneficiaries, but excluding vested terminated Members, who complete at least 15 years of Credited Service receive five annual 3.0% increase adjustments in their benefits each October 1 beginning the later of age 58 and one year after retirement.

Chapter 175 Share Plan:

Share accounts are established as of September 30, 2017.

*Contributions*

Employee: 5.0% of

Premium Tax: 1.85% tax on premiums for fire insurance.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability, if any, as provided in Part VII of Chapter 112, Florida Statutes, but in no event less than 5% of the total Salary of the Members.

**Investments**

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2018:

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic Equity	50%
International Equity	15%
Fixed Income (Core)	20%
Global Fixed Income	5%
Real Estate	10%
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, 2018, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 8.68 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.

Participation: Not to exceed 60 months.

Rate of Return: At Member's election either: a) 6.5% annual interest, compounded monthly, or b) actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs) credited each fiscal quarter.

The DROP balance as September 30, 2018 is \$30,379<sup>1</sup>.

<sup>1</sup> Assumed Normal Form of payment for a member who has not made a choice at 9/30/18. Investment returns for this individual based on this assumption.

## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2018 were as follows:

Total Pension Liability	\$ 7,327,826
Plan Fiduciary Net Position	\$ (6,214,148)
Sponsor's Net Pension Liability	\$ 1,113,678
Plan Fiduciary Net Position as a percentage of Total Pension Liability	84.80%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.50%
Investment Rate of Return	7.50%

*Mortality Rate Healthy Active Lives:*

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

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

*Mortality Rate Healthy Inactive 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 above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2016 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated, October 19, 2018.

The Long-Term Expected Rate of Return on Pension Plan investments can be 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 2018, the inflation rate assumption of the investment advisor was 2.50%.

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 geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Fixed Income (Core)	2.50%
Global Fixed Income	3.50%
Real Estate	4.50%

## GASB 67

### 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	\$ 2,039,673	\$ 1,113,678	\$ 343,810



## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2018	09/30/2017	09/30/2016
Total Pension Liability			
Service Cost	139,148	108,643	143,226
Interest	536,361	532,439	497,788
Change in Excess State Money	-	(81,652)	5,991
Share Plan Allocation	-	43,839	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	191,813	(184,278)	(60,536)
Changes of assumptions	(21,036)	-	206,276
Benefit Payments, including Refunds of Employee Contributions	(600,203)	(360,884)	(249,242)
Net Change in Total Pension Liability	246,083	58,107	543,503
Total Pension Liability - Beginning	7,081,743	7,023,636	6,480,133
Total Pension Liability - Ending (a)	<u>\$ 7,327,826</u>	<u>\$ 7,081,743</u>	<u>\$ 7,023,636</u>
Plan Fiduciary Net Position			
Contributions - Employer	330,429	363,321	372,661
Contributions - State	39,835	49,927	43,087
Contributions - Employee	31,510	32,690	29,590
Net Investment Income	524,150	639,290	327,142
Benefit Payments, including Refunds of Employee Contributions	(600,203)	(360,884)	(249,242)
Administrative Expense	(67,519)	(70,684)	(41,869)
Net Change in Plan Fiduciary Net Position	258,202	653,660	481,369
Plan Fiduciary Net Position - Beginning	5,955,946	5,302,286	4,820,917
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,214,148</u>	<u>\$ 5,955,946</u>	<u>\$ 5,302,286</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,113,678</u>	<u>\$ 1,125,797</u>	<u>\$ 1,721,350</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.80%	84.10%	75.49%
Covered Payroll <sup>1</sup>	\$ 630,200	\$ 653,809	\$ 591,797
Net Pension Liability as a percentage of Covered Payroll	176.72%	172.19%	290.87%

**Notes to Schedule:**

<sup>1</sup> The Covered 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 09/30/2018, amounts reported as changes to assumptions reflected the results of the October 19, 2018 Experience Study.

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 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2015	09/30/2014	09/30/2013
Total Pension Liability			
Service Cost	153,105	146,250	135,731
Interest	475,799	445,552	417,438
Change in Excess State Money	4,481	9,205	-
Share Plan Allocation	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(104,097)	-	-
Changes of assumptions	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(213,139)	(203,603)	(198,271)
Net Change in Total Pension Liability	316,149	397,404	354,899
Total Pension Liability - Beginning	6,163,984	5,766,580	5,411,681
Total Pension Liability - Ending (a)	<u>\$ 6,480,133</u>	<u>\$ 6,163,984</u>	<u>\$ 5,766,580</u>
Plan Fiduciary Net Position			
Contributions - Employer	369,826	342,083	284,329
Contributions - State	41,577	46,301	43,902
Contributions - Employee	33,005	33,858	35,509
Net Investment Income	(36,249)	433,063	325,256
Benefit Payments, including Refunds of Employee Contributions	(213,139)	(203,603)	(198,271)
Administrative Expense	(66,088)	(47,508)	(56,004)
Net Change in Plan Fiduciary Net Position	128,932	604,194	434,721
Plan Fiduciary Net Position - Beginning	4,691,985	4,087,791	3,653,070
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,820,917</u>	<u>\$ 4,691,985</u>	<u>\$ 4,087,791</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,659,216</u>	<u>\$ 1,471,999</u>	<u>\$ 1,678,789</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.40%	76.12%	70.89%
Covered Payroll <sup>1</sup>	\$ 749,322	\$ 677,160	\$ 710,174
Net Pension Liability as a percentage of Covered Payroll	221.43%	217.38%	236.39%

**Notes to Schedule:**

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

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2018	\$ 367,525	\$ 370,264	\$ (2,739)	\$ 630,200	58.75%
09/30/2017	\$ 406,640	\$ 410,236	\$ (3,596)	\$ 653,809	62.75%
09/30/2016	\$ 400,417	\$ 409,757	\$ (9,340)	\$ 591,797	69.24%
09/30/2015	\$ 406,922	\$ 406,922	\$ -	\$ 749,322	54.31%
09/30/2014	\$ 379,179	\$ 379,179	\$ -	\$ 677,160	56.00%
09/30/2013	\$ 321,425	\$ 321,425	\$ -	\$ 710,174	45.26%

<sup>1</sup> The Covered 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: 10/01/2016

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:

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 above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2015 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

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. Additionally, it is consistent with the national average utilized for public pension programs.

Retirement Age:

Earlier of age 55 and 10 years of service or age 52 and 25 years of service. Also, any Member who has reached Normal Retirement is assumed to continue employment for one additional year. This assumption is reasonable, based on Plan provisions.

Early Retirement:

Commencing with eligibility for Early Retirement Age (age 50 with 10 years of Service), Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. This assumption is reasonable, based on Plan provisions.

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Disability Rates: See table below (1201). It is assumed that 75% of Disability Retirements are service-related. These rates are consistent with average Florida municipal safety plans.

Termination Rates: See table below (1302). These rates are consistent with average Florida municipal safety plans.

Salary Increases: 6.0% per year until the assumed retirement age; see table on following page. This assumption is reasonable, based on long term plan experience.

Payroll Growth: 0.0%. By statute, this assumption cannot exceed the ten-year average payroll growth.

Cost-of-Living: 3% automatic adjustments for five years for all retirees, excluding vested terminated Members, beginning the first October 1 following the later of retirement and age 58.

Asset Smoothing Methodology: The Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). Over time, this may result in a de minis bias that is above or below the Market Value of Assets.

Funding Method: Entry Age Normal Actuarial Cost Method. The following loads are applied for determination of the Sponsor funding requirement:  
 Interest – None, assuming a beginning-of-year lump sum deposit by the City.  
 Salary – A full year, based on the current 6% assumption.

Termination and Disability Rate Table:

Age	% Terminating During the Year	% Becoming Disabled During the Year
20	6.0%	0.03%
30	5.0%	0.04%
40	2.6%	0.07%
50	0.8%	0.18%

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2018	8.68%
09/30/2017	11.81%
09/30/2016	6.51%
09/30/2015	-0.74%
09/30/2014	9.97%
09/30/2013	8.77%

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2019)

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: Two legal residents appointed by the City Council, two Members of the System elected by the other covered Members, and a fifth Member elected by the other four and appointed by City Council.

Each person employed by the City Fire Department as a full-time Firefighter becomes a member of the Plan as a condition of his employment. All Firefighters are therefore eligible for plan benefits as provided for in the plan document and by

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	14
	27
	27

*Benefits Provided*

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

Normal Retirement:

Eligibility: Earlier of: a) Age 55 and the completion of 10 years of Credited Service, or b) Age 52 and 25 years of Credited Service.

Benefit Amount: 3.16% of Average Final Compensation times Credited Service. For Members hired after October 31, 2013, the benefit accrual rate is 2.0% for each year of Credited Service.

Early Retirement:

Eligibility: Age 50 and 10 years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year that early retirement precedes normal retirement.

Pre-Retirement Death Benefits:

Non-Vested: Return of Member's Accumulated Contributions.

Vested: Beneficiary to receive the Member's accrued benefit for 10 years.

Disability:

Eligibility: a. Non-Service Incurred: 10 years of Credited Service.

b. Service Incurred: Covered from Date of Employment.

c. Total and permanent disability as determined by the Board of Trustees.

Benefit amount: Accrued benefit, but not less than 42% of Average Final Compensation for service incurred disabilities.

Optional forms are available.

Vesting (Termination):

Less than 10 years of Credited Service: Refund of Member Contributions without interest.

10 years or more: Accrued benefit payable at Member's otherwise Early (reduced) or Normal Retirement Date, or a refund of Member Contributions.

Cost-Of-Living Adjustments:

All retirees, including disability retirees, and beneficiaries, but excluding vested terminated Members, who complete at least 15 years of Credited Service receive five annual 3.0% increase adjustments in their benefits each October 1 beginning the later of age 58 and one year after retirement.

Chapter 175 Share Plan:

Share accounts are established as of September 30, 2017.

*Contributions*

Employee: 5.0% of Salary.

Premium Tax: 1.85% tax on premiums for fire insurance.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability, if any, as provided in Part VII of Chapter 112, Florida Statutes, but in no event less than 5% of the total Salary of the Members.

Net Pension Liability

The measurement date is September 30, 2018.

The measurement period for the pension expense was October 1, 2017 to September 30, 2018.

The reporting period is October 1, 2018 through September 30, 2019.

The Sponsor's Net Pension Liability was measured as of September 30, 2018.

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, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.50%
Investment Rate of Return	7.50%

*Mortality Rate Healthy Active Lives:*

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

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

*Mortality Rate Healthy Inactive 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 above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2016 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated, October 19, 2018.

The Long-Term Expected Rate of Return on Pension Plan investments can be 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 2018, the inflation rate assumption of the investment advisor was 2.50%.

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.

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Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 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	50%	7.50%
International Equity	15%	8.50%
Fixed Income (Core)	20%	2.50%
Global Fixed Income	5%	3.50%
Real Estate	10%	4.50%
<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, 2018	\$ 7,081,743	\$ 5,955,946	\$ 1,125,797
Changes for a Year:			
Service Cost	139,148	-	139,148
Interest	536,361	-	536,361
Differences between Expected and Actual Experience	191,813	-	191,813
Changes of assumptions	(21,036)	-	(21,036)
Changes of benefit terms	-	-	-
Contributions - Employer	-	330,429	(330,429)
Contributions - State	-	39,835	(39,835)
Contributions - Employee	-	31,510	(31,510)
Net Investment Income	-	524,150	(524,150)
Benefit Payments, including Refunds of Employee Contributions	(600,203)	(600,203)	-
Administrative Expense	-	(67,519)	67,519
Net Changes	246,083	258,202	(12,119)
Reporting Period Ending September 30, 2019	\$ 7,327,826	\$ 6,214,148	\$ 1,113,678

*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	\$ 2,039,673	\$ 1,113,678	\$ 343,810

*Pension Plan Fiduciary Net Position.*

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

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2018**

For the year ended September 30, 2018, the Sponsor has recognized a Pension Expense of \$224,125.

On September 30, 2018, 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	-	239,830
Changes of assumptions	137,516	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	10,185
Employer and State contributions subsequent to the measurement date	370,264	-
<b>Total</b>	<b>\$ 507,780</b>	<b>\$ 250,015</b>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2018.

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:		
2019	\$	(5,656)
2020	\$	16,270
2021	\$	(64,986)
2022	\$	(58,127)
2023	\$	-
Thereafter	\$	-

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2019**

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$268,470.

On September 30, 2019, 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	159,845	175,535
Changes of assumptions	103,137	17,530
Net difference between Projected and Actual Earnings on Pension Plan investments	-	92,741
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 285,806

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, 2019.

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:	
2020	\$ 30,159
2021	\$ (51,097)
2022	\$ (44,238)
2023	\$ 13,889
2024	\$ 28,463
Thereafter	\$ -

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2019 09/30/2018	09/30/2018 09/30/2017	09/30/2017 09/30/2016
Total Pension Liability			
Service Cost	139,148	108,643	143,226
Interest	536,361	532,439	497,788
Change in Excess State Money	-	(81,652)	5,991
Share Plan Allocation	-	43,839	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	191,813	(184,278)	(60,536)
Changes of assumptions	(21,036)	-	206,276
Benefit Payments, including Refunds of Employee Contributions	(600,203)	(360,884)	(249,242)
Net Change in Total Pension Liability	246,083	58,107	543,503
Total Pension Liability - Beginning	7,081,743	7,023,636	6,480,133
Total Pension Liability - Ending (a)	<u>\$ 7,327,826</u>	<u>\$ 7,081,743</u>	<u>\$ 7,023,636</u>
Plan Fiduciary Net Position			
Contributions - Employer	330,429	363,321	372,661
Contributions - State	39,835	49,927	43,087
Contributions - Employee	31,510	32,690	29,590
Net Investment Income	524,150	639,290	327,142
Benefit Payments, including Refunds of Employee Contributions	(600,203)	(360,884)	(249,242)
Administrative Expense	(67,519)	(70,684)	(41,869)
Net Change in Plan Fiduciary Net Position	258,202	653,660	481,369
Plan Fiduciary Net Position - Beginning	5,955,946	5,302,286	4,820,917
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,214,148</u>	<u>\$ 5,955,946</u>	<u>\$ 5,302,286</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,113,678</u>	<u>\$ 1,125,797</u>	<u>\$ 1,721,350</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	84.80%	84.10%	75.49%
Covered Payroll <sup>1</sup>	\$ 630,200	\$ 653,809	\$ 591,797
Net Pension Liability as a percentage of Covered Payroll	176.72%	172.19%	290.87%

**Notes to Schedule:**

<sup>1</sup> The Covered 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 09/30/2018, amounts reported as changes to assumptions reflected the results of the October 19, 2018 Experience Study.

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 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2016 09/30/2015	09/30/2015 09/30/2014	09/30/2014 09/30/2013
Total Pension Liability			
Service Cost	153,105	146,250	135,731
Interest	475,799	445,552	417,438
Change in Excess State Money	4,481	9,205	-
Share Plan Allocation	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(104,097)	-	-
Changes of assumptions	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(213,139)	(203,603)	(198,271)
Net Change in Total Pension Liability	316,149	397,404	354,899
Total Pension Liability - Beginning	6,163,984	5,766,580	5,411,681
Total Pension Liability - Ending (a)	<u>\$ 6,480,133</u>	<u>\$ 6,163,984</u>	<u>\$ 5,766,580</u>
Plan Fiduciary Net Position			
Contributions - Employer	369,826	342,083	284,329
Contributions - State	41,577	46,301	43,902
Contributions - Employee	33,005	33,858	35,509
Net Investment Income	(36,249)	433,063	325,256
Benefit Payments, including Refunds of Employee Contributions	(213,139)	(203,603)	(198,271)
Administrative Expense	(66,088)	(47,508)	(56,004)
Net Change in Plan Fiduciary Net Position	128,932	604,194	434,721
Plan Fiduciary Net Position - Beginning	4,691,985	4,087,791	3,653,070
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,820,917</u>	<u>\$ 4,691,985</u>	<u>\$ 4,087,791</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,659,216</u>	<u>\$ 1,471,999</u>	<u>\$ 1,678,789</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.40%	76.12%	70.89%
Covered Payroll <sup>1</sup>	\$ 749,322	\$ 677,160	\$ 710,174
Net Pension Liability as a percentage of Covered Payroll	221.43%	217.38%	236.39%

**Notes to Schedule:**

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

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2018	\$ 367,525	370,264	\$ (2,739)	\$ 630,200	58.75%
09/30/2017	\$ 406,640	\$ 410,236	\$ (3,596)	\$ 653,809	62.75%
09/30/2016	\$ 400,417	\$ 409,757	\$ (9,340)	\$ 591,797	69.24%
09/30/2015	\$ 406,922	\$ 406,922	\$ -	\$ 749,322	54.31%
09/30/2014	\$ 379,179	\$ 379,179	\$ -	\$ 677,160	56.00%
09/30/2013	\$ 321,425	\$ 321,425	\$ -	\$ 710,174	45.26%

<sup>1</sup> The Covered 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: 10/01/2016

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:

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 above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2015 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements. 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. Additionally, it is consistent with the national average utilized for public pension programs.

Interest Rate:

Retirement Age:

Earlier of age 55 and 10 years of service or age 52 and 25 years of service. Also, any Member who has reached Normal Retirement is assumed to continue employment for one additional year. This assumption is reasonable, based on Plan provisions.

Early Retirement:

Commencing with eligibility for Early Retirement Age (age 50 with 10 years of Service), Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. This assumption is reasonable, based on Plan provisions.

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Disability Rates:	See table below (1201). It is assumed that 75% of Disability Retirements are service-related. These rates are consistent with average Florida municipal safety
Termination Rates:	See table below (1302). These rates are consistent with average Florida municipal safety plans.
Salary Increases:	6.0% per year until the assumed retirement age; see table on following page. This assumption is reasonable, based on long term plan experience.
Payroll Growth:	0.0%. By statute, this assumption cannot exceed the ten-year average payroll growth.
Cost-of-Living:	3% automatic adjustments for five years for all retirees, excluding vested terminated Members, beginning the first October 1 following the later of retirement and age 58.
Asset Smoothing Methodology:	The Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). Over time, this may result in a de minis bias that is above or below the Market Value of Assets.
Funding Method:	Entry Age Normal Actuarial Cost Method. The following loads are applied for determination of the Sponsor funding requirement: Interest – None, assuming a beginning-of-year lump sum deposit by the City. Salary – A full year, based on the current 6% assumption.

Termination and Disability Rate Table:

Age	% Terminating During the Year	% Becoming Disabled During the Year
20	6.00%	0.03%
30	5.00%	0.04%
40	2.60%	0.07%
50	0.80%	0.18%

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

**The following information is not required to be disclosed but is provided for informational purposes.**



FINAL COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2018

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 1,721,350	\$ 163,697	\$ 870,876	\$ -
Employer and State Contributions made after 09/30/2017	-	-	370,264	-
Total Pension Liability Factors:				
Service Cost	108,643	-	-	108,643
Interest	532,439	-	-	532,439
Change in Excess State Money	(81,652)	-	-	(81,652)
Share Plan Allocation	43,839	-	-	43,839
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(184,278)	184,278	-	-
Current year amortization of experience difference	-	(64,293)	-	(64,293)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(34,380)	34,380
Benefit Payments, including Refunds of Employee Contributions	(360,884)	-	-	-
Net change	<u>58,107</u>	<u>119,985</u>	<u>335,884</u>	<u>573,356</u>
Plan Fiduciary Net Position:				
Contributions - Employer	363,321	-	(363,321)	-
Contributions - State	49,927	-	(49,927)	-
Contributions - Employee	32,690	-	-	(32,690)
Projected Net Investment Income	411,484	-	-	(411,484)
Difference between projected and actual earnings on Pension Plan investments	227,806	227,806	-	-
Current year amortization	-	(67,488)	(91,747)	24,259
Benefit Payments, including Refunds of Employee Contributions	(360,884)	-	-	-
Administrative Expenses	(70,684)	-	-	70,684
Net change	<u>653,660</u>	<u>160,318</u>	<u>(504,995)</u>	<u>(349,231)</u>
Ending Balance	<u>\$ 1,125,797</u>	<u>\$ 444,000</u>	<u>\$ 701,765</u>	<u>\$ 224,125</u>

**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2019**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 1,125,797	\$ 444,000	\$ 701,765	\$ -
Employer and State Contributions made after 09/30/2018	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	139,148	-	-	139,148
Interest	536,361	-	-	536,361
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	191,813	-	191,813	-
Current year amortization of experience difference	-	(64,295)	(31,968)	(32,327)
Change in assumptions about future economic or demographic factors or other inputs	(21,036)	21,036	-	-
Current year amortization of change in assumptions	-	(3,506)	(34,379)	30,873
Benefit Payments, including Refunds of Employee Contributions	(600,203)	-	-	-
Net change	<u>246,083</u>	<u>(46,765)</u>	<u>125,466</u>	<u>674,055</u>
Plan Fiduciary Net Position:				
Contributions - Employer	330,429	-	(330,429)	-
Contributions - State	39,835	-	(39,835)	-
Contributions - Employee	31,510	-	-	(31,510)
Projected Net Investment Income	451,280	-	-	(451,280)
Difference between projected and actual earnings on Pension Plan investments	72,870	72,870	-	-
Current year amortization	-	(82,061)	(91,747)	9,686
Benefit Payments, including Refunds of Employee Contributions	(600,203)	-	-	-
Administrative Expenses	(67,519)	-	-	67,519
Net change	<u>258,202</u>	<u>(9,191)</u>	<u>(462,011)</u>	<u>(405,585)</u>
Ending Balance	<u>\$ 1,113,678</u>	<u>\$ 388,044</u>	<u>TBD</u>	<u>\$ 268,470</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2018 but made on or before September 30, 2019 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 Projected and Actual Earnings	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2025	2025	2025
2014	\$ (109,628)	5	\$ (21,926)	\$ (21,926)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 406,279	5	\$ 81,256	\$ 81,256	\$ 81,256	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 52,455	5	\$ 10,491	\$ 10,491	\$ 10,491	\$ 10,491	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (227,806)	5	\$ (45,562)	\$ (45,561)	\$ (45,561)	\$ (45,561)	\$ (45,561)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (72,870)	5	\$ -	\$ (14,574)	\$ (14,574)	\$ (14,574)	\$ (14,574)	\$ (14,574)	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 24,259	\$ 9,686	\$ 31,612	\$ (49,644)	\$ (60,135)	\$ (14,574)	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2016	\$ 206,276	6	\$ 34,380	\$ 34,379	\$ 34,379	\$ 34,379	\$ 34,379	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (21,036)	6	\$ -	\$ (3,506)	\$ (3,506)	\$ (3,506)	\$ (3,506)	\$ (3,506)	\$ (3,506)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 34,380	\$ 30,873	\$ 30,873	\$ 30,873	\$ 30,873	\$ (3,506)	\$ (3,506)	\$ -	\$ -	\$ -	\$ -

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2015	\$ (104,097)	6	\$ (17,349)	\$ (17,350)	\$ (17,350)	\$ (17,350)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (60,536)	6	\$ (10,090)	\$ (10,089)	\$ (10,089)	\$ (10,089)	\$ (10,089)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (184,278)	5	\$ (36,854)	\$ (36,856)	\$ (36,856)	\$ (36,856)	\$ (36,856)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 191,813	6	\$ -	\$ 31,968	\$ 31,969	\$ 31,969	\$ 31,969	\$ 31,969	\$ 31,969	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (64,293)	\$ (32,327)	\$ (32,326)	\$ (32,326)	\$ (14,976)	\$ 31,969	\$ 31,969	\$ -	\$ -	\$ -	\$ -