





January 31, 2024

Board of Trustees City of Plant City Firefighters and Police Officers' Pension Board

Re: City of Plant City Safety Employees' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Plant City Safety Employees' 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. Use of the results for other purposes may not be applicable and may produce significantly different results.

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, 175, and 185, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. 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 valuation, we have relied on personnel, plan design, and asset information supplied by the City of Plant City, 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.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

In our opinion, the Minimum Required Contribution set forth in this report constitutes a reasonable actuarially determined contribution under Actuarial Standard of Practice No. 4.

The undersigned is 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 Plant City, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Safety Employees' 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:

Patrick T. Donlan, EA, ASA, MAAA Enrolled Actuary #23-6595

PTD/lke

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Plant City Safety Employees' Retirement System, performed as of October 1, 2023, 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, 2025.

The contribution requirements, compared with those set forth in the October 1, 2022 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2023 <u>9/30/2025</u>	10/1/2022 <u>9/30/2024</u>
Minimum Required Contribution	\$3,936,954	\$3,452,316
Member Contributions (Est.)	967,004	907,142
City And State Required Contribution	2,969,950	2,545,174
State Contribution (Est.) ¹	901,461	901,461
City Required Contribution (Est.)	\$2,068,489	\$1,643,713

¹ Represents the amount received in calendar 2023. As per a Mutual Consent Agreement between the Membership and the City, all State Monies received each year will be available to offset the City's required contribution.

As you can see, the Minimum Required Contribution shows an increase when compared to the results set forth in the October 1, 2022 actuarial valuation report. The increase is partially attributable to the natural increase in the amortization payment due to the payroll growth assumption and partially attributable to net unfavorable experience as described below.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 4.28% (Actuarial Asset Basis) which fell short of the 7.50% assumption and an average salary increase of 16.48% which exceeded the 5.54% assumption. These losses were offset in part by a gain associated with favorable turnover experience.

CHANGES SINCE PRIOR VALUATION

Plan Changes

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

Actuarial Assumption/Method Changes

There have been no assumption or method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	10/1/2023	10/1/2022
A. Participant Data		
Actives	101	109
Service Retirees	90	79
DROP Retirees	11	11
Beneficiaries	7	7
Disability Retirees	0	0
Terminated Vested	<u>35</u>	<u>31</u>
Total	244	237
Projected Annual Payroll	8,397,619	8,261,094
Annual Rate of Payments to:		
Service Retirees	3,500,252	2,992,642
DROP Retirees	781,418	652,253
Beneficiaries	99,515	99,515
Disability Retirees	0	0
Terminated Vested	379,056	461,315
B. Assets		
Actuarial Value (AVA) ¹	65,077,318	64,138,541
Market Value (MVA) ¹	59,503,336	56,378,041
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	36,479,641	37,915,305
Disability Benefits	701,650	702,142
Death Benefits	119,842	119,976
Vested Benefits	3,356,504	3,232,617
Refund of Contributions	451,530	426,503
Service Retirees	38,842,896	33,026,608
DROP Retirees ¹	11,429,512	10,786,741
Beneficiaries	1,115,461	1,124,859
Disability Retirees	0	0
Terminated Vested	4,135,356	4,727,451
Share Plan Balances ¹	0	0
Total	96,632,392	92,062,202

C. Liabilities - (Continued)	10/1/2023	10/1/2022
Present Value of Future Salaries	66,292,690	62,089,023
Present Value of Future		
Member Contributions	6,629,269	6,208,902
Normal Cost (Retirement)	1,441,799	1,463,810
Normal Cost (Disability)	55,263	58,505
Normal Cost (Death)	7,780	7,913
Normal Cost (Vesting)	216,560	212,303
Normal Cost (Refunds)	79,598	74,649
Total Normal Cost	1,801,000	1,817,180
Present Value of Future		
Normal Costs	12,969,139	12,416,832
Accrued Liability (Retirement)	26,092,868	27,944,252
Accrued Liability (Disability)	297,893	304,097
Accrued Liability (Death)	64,523	66,629
Accrued Liability (Vesting)	1,629,406	1,619,409
Accrued Liability (Refunds)	55,338	45,324
Accrued Liability (Inactives) 1	55,523,225	49,665,659
Share Plan Balances ¹	0	0
Total Actuarial Accrued Liability (EAN AL)	83,663,253	79,645,370
Unfunded Actuarial Accrued		
Liability (UAAL)	18,585,935	15,506,829
Funded Ratio (AVA / EAN AL)	77.8%	80.5%

D. Actuarial Present Value of		
Accrued Benefits	10/1/2023	10/1/2022
Vested Accrued Benefits		
Inactives + Share Plan Balances ¹	55,523,225	49,665,659
Actives	13,474,435	15,885,474
Member Contributions	5,172,634	5,708,974
Total	74,170,294	71,260,107
Non-vested Accrued Benefits	1,540,741	1,318,722
Total Present Value		
Accrued Benefits (PVAB)	75,711,035	72,578,829
Funded Ratio (MVA / PVAB)	78.6%	77.7%
Increase (Decrease) in Present Value of		
Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	3,301,506	
Benefits Paid	(5,409,843)	
Interest	5,240,543	
Other	0	
Total	3,132,206	

Valuation Date Applicable to Fiscal Year Ending	10/1/2023 9/30/2025	10/1/2022 <u>9/30/2024</u>
E. Pension Cost		
Normal Cost ²	\$1,998,930	\$1,923,303
Administrative Expenses ²	69,052	79,435
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 25 years		
$(as of 10/1/2023)^2$	1,868,972	1,449,578
Minimum Required Contribution	3,936,954	3,452,316
Expected Member Contributions ²	967,004	907,142
Expected City and State Contribution	2,969,950	2,545,174
F. Past Contributions		
Plan Years Ending:	9/30/2023	
City and State Requirement	2,359,469	
Actual Contributions Made:		
City State Total	1,942,773 901,461 2,844,234	
G. Net Actuarial (Gain)/Loss	3,744,860	

¹ The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2023 and 9/30/2022.

 $^{^{2}\,}$ Contributions developed as of 10/1/2023 displayed above have been adjusted to account for assumed salary increase components.

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

	Projected Unfunded	
<u>Year</u>	Actuarial Accrued Liability	
2023	18,585,935	
2024	18,169,675	
2025	17,673,320	
2031	12,559,337	
2037	5,306,930	
2042	1,537,276	
2048	0	

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

		<u>Actual</u>	Assumed
Year Ended	9/30/2023	16.48%	5.54%
Year Ended	9/30/2022	5.79%	5.36%
Year Ended	9/30/2021	10.11%	5.21%
Year Ended	9/30/2020	1.98%	5.06%
Year Ended	9/30/2019	8.20%	5.22%

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

		<u>Market Value</u>	Actuarial Value	Assumed
Year Ended	9/30/2023	8.71%	4.28%	7.50%
Year Ended	9/30/2022	-14.79%	5.52%	7.50%
Year Ended	9/30/2021	19.15%	9.93%	7.50%
Year Ended	9/30/2020	9.24%	7.69%	7.50%
Year Ended	9/30/2019	3.11%	7.80%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023 10/1/2013	\$8,397,619 6,120,239
(b) Total Increase		37.21%
(c) Number of Years		10.00
(d) Average Annual Rate		3.21%

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.

Patrick T. Donlan, EA, ASA, MAAA

Enrolled Actuary #20-6595

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, 2022	\$15,506,829
(2)	Sponsor Normal Cost developed as of October 1, 2022	991,071
(3)	Expected administrative expenses for the year ended September 30, 2023	75,052
(4)	Expected interest on (1), (2) and (3)	1,240,157
(5)	Sponsor contributions to the System during the year ended September 30, 2023	2,844,234
(6)	Expected interest on (5)	127,800
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	14,841,075
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	3,744,860
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2023	18,585,935

Type of	Date	Years	10/1/2023	Amortization
<u>Base</u>	Established	Remaining	<u>Amount</u>	<u>Amount</u>
"D"	10/1/2001	8	775,829 1	113,170
Benefits Change	10/1/2002	9	1,227,265	162,567
Actuarial Loss	10/1/2003	10	153,233	18,659
Method Change	10/1/2003	10	158,221	19,267
Actuarial Loss	10/1/2004	11	745,360	84,264
Actuarial Loss	10/1/2005	12	537,345	56,858
Actuarial Loss	10/1/2006	13	284,041	28,323
Actuarial Gain	10/1/2007	14	(6,009)	(568)
Benefits Change	10/1/2007	14	(236,068)	(22,311)
Actuarial Loss	10/1/2008	15	1,042,649	93,862
Method Change	10/1/2008	15	127,840	11,508
Actuarial Loss	10/1/2009	16	2,270,302	195,507
Benefits Change	10/1/2009	16	(28,983)	(2,496)
Actuarial Loss	10/1/2010	17	1,492,203	123,385
Assump Change	10/1/2010	17	468,977	38,778
Actuarial Loss	10/1/2011	18	809,052	64,447
Assump Change	10/1/2011	18	701,150	55,851
Actuarial Loss	10/1/2012	19	766,941	59,026
Actuarial Loss	10/1/2013	20	736,222	54,888

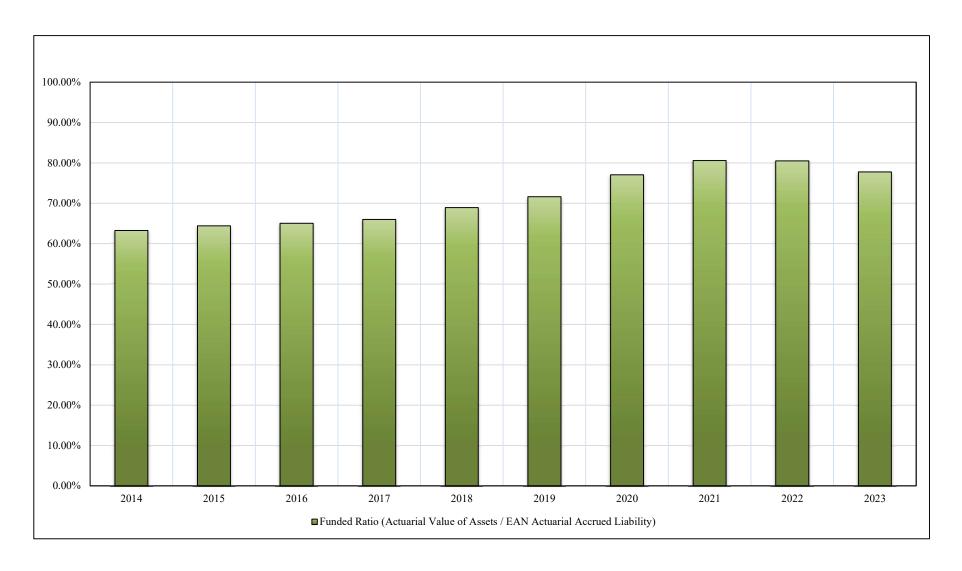
Type of	Date	Years	10/1/2023	Amortization
<u>Base</u>	Established	Remaining	<u>Amount</u>	Amount
Benefits Change	10/1/2013	20	(239,641)	(17,866)
Assump Change	10/1/2013	20	(1,472,813)	(109,804)
Actuarial Loss	10/1/2014	21	24,585	1,780
Assump Change	10/1/2015	22	1,279,619	90,131
Chapter 2015-39	10/1/2015	12	(255,464)	(27,032)
Actuarial Gain	10/1/2015	22	(14,846)	(1,046)
Assump Change	10/1/2016	23	1,154,897	79,301
Actuarial Loss	10/1/2016	23	567,223	38,948
Actuarial Loss	10/1/2017	24	770,964	51,697
Actuarial Loss	10/1/2018	25	177,140	11,618
Benefits Change	10/1/2018	25	(1,608)	(105)
Actuarial Loss	10/1/2019	11	360,103	40,710
Actuarial Gain	10/1/2020	12	(762,409)	(80,673)
Asmp/Mthd Change	10/1/2020	12	33,420	3,536
Actuarial Gain	10/1/2021	13	(435,944)	(43,470)
Actuarial Loss	10/1/2022	14	1,630,279	154,079
Actuarial Loss	10/1/2023	15	3,744,860	337,121
			18,585,935	1,683,910

¹ Includes excess contributions (with interest) of \$502,521. These excess contributions were applied to pay down the existing UAAL layer with the shortest remaining period (base "D").

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	\$15,506,829
(2) Expected UAAL as of October 1, 2023	14,841,075
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	2,039,871
Salary Increases	1,948,283
Active Decrements	(65,089)
Inactive Mortality	237,321
Other	(415,526)
Increase in UAAL due to (Gain)/Loss	3,744,860
Assumption Changes	0
(4) Actual UAAL as of October 1, 2023	\$18,585,935

HISTORY OF FUNDING PROGRESS



ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

Female: PubS.H-2010 for Employees, set forward one

Male: PubS.H-2010 for Employees, set forward one year.

Healthy Retiree Lives:

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 for Healthy Retirees, set forward one year.

Beneficiary Lives:

Female: PubG.H-2010 for Healthy Retirees. **Male:** PubG.H-2010 for Healthy Retirees, set back one year.

Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates for healthy lives are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality 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, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

Interest Rate

7.50% 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%			
1-9	6.00%			
10+	4.00%			

The assumed rates were confirmed in conjunction with an actuarial experience study dated May 2019. Also, the projected salary in the year of retirement is assumed to increase to account for non-regular compensation as follows:

Credited Service as of October 1, 2013 ¹	Final Salary Load
15+ Years	20.0%
10 to 15 Years	15.0%
Less than 10 Years	5.0%

¹ Members hired on or after July 1, 2011 will have no final salary load

Payroll Growth

2.70% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Administrative Expenses

\$62,215 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over the following amortization periods:

Experience: 15 Years.

Assumption/Method Changes: 15 Years.

Benefit Changes: 15 Years.

The amortization payment is subject to a minimum based on a 30-year amortization of the UAAL, if the UAAL is positive, in order to comply with Actuarial Standard of Practice No. 4.

Bases established prior to the valuation date are adjusted proportionally to match the Expected Unfunded Actuarial Accrued Liability as of the valuation date, in order to align prior year bases with the portion of the current year UAAL associated with prior year sources.

Entry Age Normal Actuarial Cost Method. The following loads are applied for determining the minimum required contribution:

Interest - None, based on current 7.50% assumption.

Salary - A full year, based on current 10.99% assumption.

Prior to Attaining Age 55:

<u>Service</u>	Probability
20 Years	50.0%
21 Years	5.0%
22 Years	5.0%
23 Years or more	100.0%

Age 55 and older:

All other members are assumed to retire with 100% probability at the earlier of age 60 or the attainment of age 55 with 10 years of credited service.

Additionally, it is assumed that members who are eligible to retire on the valuation date will continue employment for one additional year.

The assumed rates were confirmed in conjunction with an actuarial experience study dated May 2019.

5.00% per year commencing with the earliest Early Retirement Age (50). The assumed rate was confirmed in conjunction with an actuarial experience study dated May 2019.

Age-based; sample rates below.

% Becoming Disabled

During the Year				
Age	Rate			
20	0.05%			
30	0.06%			
40	0.12%			
50	0.43%			
60	1.61%			

Funding Method

Retirement Age

Early Retirement

Disability

Additionally, it is assumed that 90% (previously 75%) of disablements are service related for firefighters and 75% of disablements are service related for police officers. This assumption was developed from those used by other plans containing Florida municipal Police Officers and Firefighters.

Termination

% Terminating			
During the Year			
Service	Rate		
0-2	10.0%		
3-5	6.0%		
6+	3.0%		

The assumed rates were confirmed in conjunction with an actuarial experience study dated May 2019.

Actuarial Asset Method

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

Low-Default-Risk Obligation Measure

Based on the Entry Age Normal Actuarial Cost Method and an interest rate of 4.87% per year compounded annually, net of investment related expenses. This rate is consistent with the Yield to Maturity of the S&P Municipal Bond 20-Year High Grade Rate Index as of September 30, 2023. All other assumptions for the Low-Default-Risk Obligation Measure are consistent with the assumptions shown in this section unless otherwise noted.

GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

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

- (a) The normal cost accrual rate equals:
 - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
 - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.
- (d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

<u>Market Value of Assets</u> is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it 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.

<u>Payroll Under Assumed Ret. Age</u> is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members, excluding any Members who are assumed to retire with 100% probability on the valuation date.

<u>Projected Annual Payroll</u> is the projected annual rate of pay for the fiscal year following the fiscal year beginning on the valuation date of all covered Members.

<u>Present Value of Benefits</u> is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

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

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

<u>Unfunded Actuarial Accrued Liability (UAAL)</u> 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.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- <u>Investment Return</u>: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- <u>Salary Increases</u>: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Payroll Growth: The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll increases less than the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled "Plan Maturity Measures and Other Risk Metrics". Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 134.7% on October 1, 2013 to 85.6% on October 1, 2023, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 66.4%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 60.8% on October 1, 2013 to 77.8% on October 1, 2023.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from 2.5% on October 1, 2013 to -3.0% on October 1, 2023. The current Net Cash Flow Ratio of -3.0% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

Low Default-Risk Obligation Measure

ASOP No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, was revised as of December 2021 to include a "low-default-risk obligation measure" (LDROM). This liability measure is consistent with the determination of the actuarial accrued liability shown on page 8 in terms of member data, plan provisions, and assumptions/methods, under the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20 Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.87%, resulting in an LDROM of \$113,850,033. The LDROM should not be considered the "correct" liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. The Board actually invests the pension plan's contributions in a diversified portfolio of stocks and bonds and other investments with the objective of maximizing investment returns at a reasonable level of risk. Consequently, the difference between the plan's Actuarial Accrued Liability disclosed earlier in this section and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan's diversified portfolio compared to investing only in high quality bonds.

The actuarial valuation reports the funded status and develops contributions based on the expected return of the plan's investment portfolio. If instead, the plan switched to investing exclusively in high quality bonds, the LDROM illustrates that reported funded status would be lower (which also implies that the Actuarially Determined Contributions would be higher), perhaps significantly. Unnecessarily high contribution requirements in the near term may not be affordable and could imperil plan sustainability and benefit security.

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	10/1/2023	10/1/2022	10/1/2018	10/1/2013
Support Ratio				
Total Actives Total Inactives ¹ Actives / Inactives ¹	101 118 85.6%	109 109 100.0%	99 91 108.8%	97 72 134.7%
Asset Volatility Ratio				
Market Value of Assets (MVA) Total Annual Payroll MVA / Total Annual Payroll	59,503,336 8,397,619 708.6%	56,378,041 8,261,094 682.5%	45,490,577 6,966,737 653.0%	29,272,764 6,120,239 478.3%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability Total Accrued Liability (EAN) Inactive AL / Total AL	55,523,225 83,663,253 66.4%	49,665,659 79,645,370 62.4%	38,052,150 64,358,663 59.1%	27,561,567 46,533,575 59.2%
Funded Ratio				
Actuarial Value of Assets (AVA) Total Accrued Liability (EAN) AVA / Total Accrued Liability (EAN)	65,077,318 83,663,253 77.8%	64,138,541 79,645,370 80.5%	44,356,751 64,358,663 68.9%	28,270,716 46,533,575 60.8%
Net Cash Flow Ratio				
Net Cash Flow ² Market Value of Assets (MVA) Ratio	(1,765,536) 59,503,336 -3.0%	140,017 56,378,041 0.2%	1,634,555 45,490,577 3.6%	736,214 29,272,764 2.5%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During <u>Fiscal Year</u>	<u>Amount</u>	Increase from Previous Year
1998	277,884.64	%
1999	256,920.28	-7.5%
2000	262,155.42	2.0%
2001	284,934.78	8.7%
2002	312,104.54	9.5%
2003	378,593.06	21.3%
2004	403,272.91	6.5%
2005	431,492.26	7.0%
2006	449,047.41	4.1%
2007	486,441.91	8.3%
2008	586,100.89	20.5%
2009	560,259.72	-4.4%
2010	497,868.81	-11.1%
2011	495,170.81	-0.5%
2012	484,273.41	-2.2%
2013	537,593.77	11.0%
2014	508,305.37	-5.4%
2015	517,963.66	1.9%
2016	528,282.04	2.0%
2017	543,278.20	2.8%
2018	600,920.92	10.6%
2019	616,859.76	2.7%
2020	639,586.75	3.7%
2021	659,435.92	3.1%
2022	745,768.40	13.1%
2023	901,460.92	20.9%

STATEMENT OF FIDUCIARY NET POSITION SEPTEMBER 30, 2023

ASSETS Control Control Control	COST VALUE	MARKET VALUE
Cash and Cash Equivalents: Short Term Investments Cash	1,065,505.37 (2,070.84)	1,065,505.37 (2,070.84)
Total Cash and Equivalents	1,063,434.53	1,063,434.53
Receivables:		
State Contributions	35,713.28	35,713.28
Investment Income	109,178.00	109,178.00
Total Receivable	144,891.28	144,891.28
Investments:		
U. S. Bonds and Bills	4,747,347.17	4,422,554.40
Federal Agency Guaranteed Securities	3,161,036.74	2,902,992.88
Corporate Bonds	6,069,020.99	5,727,460.72
Certificates of Deposits	578,254.88	570,941.06
Mutual Funds:	•	,
Fixed Income	5,808,326.88	6,111,876.20
Equity	25,732,782.06	36,068,065.45
Pooled/Common/Commingled Funds:	- 7: - 7:	/
Real Estate	2,121,214.35	2,514,762.93
	_,,	_,,
Total Investments	48,217,983.07	58,318,653.64
Total Assets	49,426,308.88	59,526,979.45
<u>LIABILITIES</u>		
Payables:		
Refunds of Member Contributions	20,314.91	20,314.91
Administrative Expenses	3,328.80	3,328.80
Total Liabilities	23,643.71	23,643.71
NET POSITION RESTRICTED FOR PENSIONS	49,402,665.17	59,503,335.74

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED SEPTEMBER 30, 2023 Market Value Basis

	855,243.07 1,942,773.36 901,460.92	
		3,699,477.35
496,881.09 2,867,373.21	3,364,254.30 1,642,306.75 (115,730.61)	
		4,890,830.44
		8,590,307.79
	3,286,145.56 1,949,635.86 174,061.32	
		5,409,842.74
		55,170.31
		5,465,013.05
		3,125,294.74
	· ·	1,942,773.36 901,460.92 496,881.09 2,867,373.21 3,364,254.30 1,642,306.75 (115,730.61)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year

End of the Year

56,378,041.00

59,503,335.74

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

ACTUARIAL ASSET VALUATION September 30, 2023

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.

		Gains/Losses Not Y	Yet Recognized			
Plan Year		Amounts Not Yet Recognized by Valuation Year				
Ending	Gain/(Loss)	2023	2024	2025	2026	2027
09/30/2021	6,731,088	2,692,434	1,346,216	0	0	0
09/30/2022	(14,748,940)	(8,849,364)	(5,899,576)	(2,949,788)	0	0
09/30/2023	728,685	582,948	437,211	291,474	145,737	0
Total		(5,573,982)	(4,116,149)	(2,658,314)	145,737	0

Devel	opment of Investment Gain/Loss

Market Value of Assets, 09/30/2022	56,378,041
Contributions Less Benefit Payments & Admin Expenses	(1,765,536)
Expected Investment Earnings*	4,162,145
Actual Net Investment Earnings	4,890,830
2023 Actuarial Investment Gain/(Loss)	728,685

^{*}Expected Investment Earnings = 0.075 * (56,378,041 - 0.5 * 1,765,536)

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2023	59,503,336
(2) Gains/(Losses) Not Yet Recognized	(5,573,982)
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	65,077,318
(4) Limited Actuarial Value of Assets, 09/30/2023	65,077,318
(A) 09/30/2022 Actuarial Assets:	64,138,541
(I) Net Investment Income:	
1. Interest and Dividends	1,642,307
2. Realized Gain (Loss)	496,881
3. Unrealized Gain (Loss)	2,867,373
4. Change in Actuarial Value	(2,186,518)
5. Investment Expenses	(115,731)
Total	2,704,312
(B) 09/30/2023 Actuarial Assets:	65,077,318
Actuarial Assets Rate of Return = 2I/(A+B-I):	4.28%
Market Value of Assets Rate of Return:	8.71%
A description of the Association of December (Association of December 1)	(2.020.071)
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(2,039,871)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS SEPTEMBER 30, 2023 Actuarial Asset Basis

REVENUES

	REVENCES	
Contributions: Member City State	855,243.07 1,942,773.36 901,460.92	
Total Contributions		3,699,477.35
Earnings from Investments: Interest & Dividends Net Realized Gain (Loss) Unrealized Gain (Loss) Change in Actuarial Value	1,642,306.75 496,881.09 2,867,373.21 (2,186,518.00)	
Total Earnings and Investment Gains		2,820,043.05
Distribution of Monthson	EXPENDITURES	
Distributions to Members: Benefit Payments Lump Sum DROP Distributions Refunds of Member Contributions	3,286,145.56 1,949,635.86 174,061.32	
Total Distributions		5,409,842.74
Expenses: Investment related ¹ Administrative	115,730.61 55,170.31	
Total Expenses		170,900.92
Change in Net Assets for the Year		938,776.74
Net Assets Beginning of the Year		64,138,541.00
Net Assets End of the Year ²		65,077,317.74

¹Investment related expenses include investment advisory, custodial and performance monitoring fees. ²Net Assets may be limited for actuarial consideration.

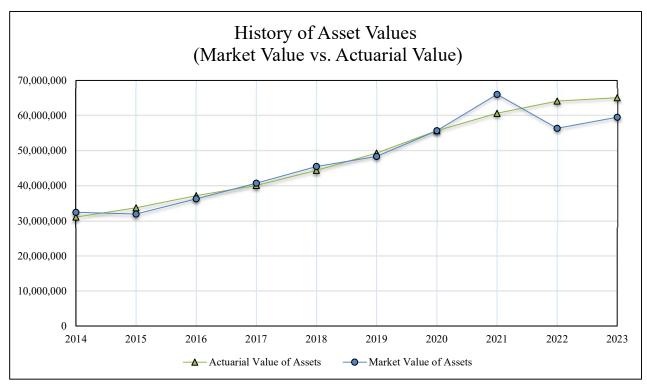
DEFERRED RETIREMENT OPTION PLAN ACTIVITY October 1, 2022 to September 30, 2023

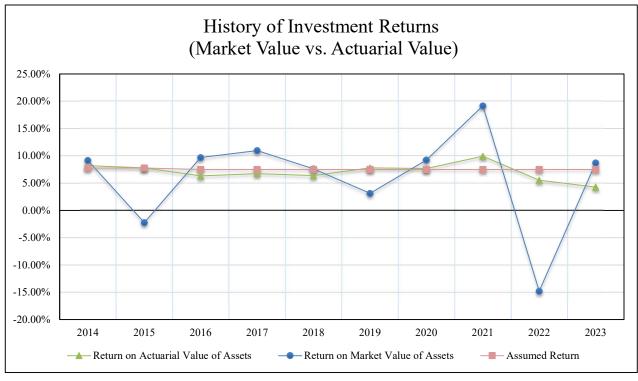
Beginning of the Year Balance	2,515,489.47
Plus Additions	755,324.85
Investment Return Earned	113,909.81
Less Distributions	(1,949,635.86)
End of the Year Balance	1,435,088.27

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2023

(1)	Required City and State Contributions	\$2,359,469.00
(2)	Less Allowable State Contribution	(901,460.92)
(3)	Required City Contribution for Fiscal 2023	1,458,008.08
(4)	Less 2022 Prepaid Contribution	0.00
(5)	Less Actual City Contributions	(1,942,773.36)
(6)	City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2023	(\$484,765.28)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2023	10/1/2022	10/1/2021	10/1/2020
Actives - Hired Before 9/26/16				
Number	45	55	58	73
Average Current Age	43.8	44.1	43.4	44.0
Average Age at Employment	29.1	29.7	29.7	30.9
Average Past Service	14.7	14.4	13.7	13.1
Average Annual Salary	\$103,178	\$91,589	\$87,272	\$81,664
Actives - Hired on or After 9/26/16				
Number	56	54	41	31
Average Current Age	30.7	30.5	30.0	29.9
Average Age at Employment	28.1	28.1	27.9	28.2
Average Past Service	2.6	2.4	2.1	1.7
Average Annual Salary	\$67,047	\$59,698	\$58,822	\$53,850
Service Retirees				
Number	90	79	77	70
Average Current Age	63.1	63.4	62.6	62.0
Average Annual Benefit	\$38,892	\$37,882	\$37,652	\$35,952
DROP Retirees				
Number	11	11	12	11
Average Current Age	51.8	52.3	52.3	51.2
Average Annual Benefit	\$71,038	\$59,296	\$55,761	\$57,220
<u>Beneficiaries</u>				
Number	7	7	7	6
Average Current Age	63.5	62.5	61.5	64.5
Average Annual Benefit	\$14,216	\$14,216	\$14,216	\$10,861
Terminated Vested				
Number	35	31	29	22
Average Current Age 1	49.1	49.3	48.4	49.0
Average Annual Benefit 1	\$37,906	\$38,443	\$35,661	\$25,772

¹ The Average Current Age and Average Annual Benefit exclude participants awaiting a refund of 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
20 - 24	4	3	3									10
25 - 29	5	6	4	1	1	3						20
30 - 34	1	5	2	3	2	4						17
35 - 39	2			2		8	3	3				18
40 - 44		1			2		2	6	2			13
45 - 49						2	5	2	2			11
50 - 54						1		1	3	1		6
55 - 59			1		1	1	1	2				6
60 - 64												0
65+												0
Total	12	15	10	6	6	19	11	14	7	1	0	101

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	109
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	(6)
iii. Refund of member contributions or full lump sum distribution	(4)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(4)
f. DROP	<u>(5)</u>
g. Continuing participants	89
h. New entrants / Rehires	12_
i. Total active life participants in valuation	101

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

	Service Retirees, Vested Receiving Benefits	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred <u>Annuity</u>)	Vested (Due <u>Refund)</u>	<u>Total</u>
a. Number prior valuation	79	11	7	0	12	19	128
Retired	11	(5)			(2)		4
DROP		5					5
Vested (Deferred Annuity)					1		1
Vested (Due Refund)						6	6
Hired/Terminated in Same Year							0
Death, With Survivor							0
Death, No Survivor							0
Disabled							0
Refund of Contributions					(1)		(1)
Rehires							0
Expired Annuities							0
Data Corrections							0
b. Number current valuation	90	11	7	0	10	25	143

SUMMARY OF CURRENT PLAN

Eligibility Full-time employees who are classified as full-time

sworn police officers or full-time certified firefighters

shall participate in the Plan as a condition of

employment.

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

the City as a police officer or firefighter.

Salary Total W-2 income, plus tax sheltered, tax exempt and

tax deferred items of income. Effective July 1, 2011, Salary shall not include more than three hundred (300) hours of overtime per calendar year. Additionally, Salary will include the lesser of the amount of sick and vacation leave time accrued as of July 1, 2011, or the actual amount of sick and vacation leave time for which the retiree receives payment at the time of retirement.

<u>Average Final Compensation</u> Average Salary for the best 5 years during the 10 years

immediately preceding retirement or termination.

Member Contributions 10.0% of Salary.

City and State Contributions Remaining amount required in order to pay current costs

and amortize the unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.

Normal Retirement

Date Earlier of (1) age 60, (2) the completion of 20 years of

Credited Service, regardless of age, or (3) the attainment

of age 55 with 10 years of Credited Service.

For Members hired on or after September 26, 2016, it will be the earlier of (1) age 52 and the completion of 25 years of Credited Service or (2) the attainment of age 55

with 10 years of Credited Service.

Benefit 3.75% (3.00% for those hired on or after September 26,

2016) of Average Final Compensation times Credited

Service

Form of Benefit Ten Year Certain and Life Annuity (options available).

Early Retirement

Eligibility Age 50 and 10 Years of Credited Service.

Benefit Accrued benefit, reduced 3% per year.

Vesting

Schedule 100% after 10 years of Credited Service.

Benefit Amount Member will receive the vested portion of his (her)

accrued benefit payable at the otherwise Normal

Retirement Date.

Disability

Eligibility

Service Incurred Covered from Date of Employment.

Non-Service Incurred 10 years of Credited Service.

Exclusions Disability resulting from use of drugs, illegal

participation in riots, service in military, etc.

Benefit Benefit accrued to date of disability, based on a 3.0%

benefit multiplier, but not less than 42% of Average

Final Compensation (Service Incurred).

Duration Payable for life and ten years certain or until recovery

(as determined by the Board). Options available.

Death Benefits

Pre-Retirement

Vested Monthly accrued benefit paid to the designated

beneficiary for 10 years.

Non-Vested Refund of accumulated member contributions.

Post-Retirement Benefits payable to beneficiary in accordance with

option selected at retirement.

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

b. One Police Officer Member and one Firefighter

Member and

c. Fifth Member elected by other 4 and appointed by the

City

<u>Deferred Retirement Option Plan</u>

Eligibility Satisfaction of Normal Retirement requirements (earlier

of age 60, age 55 with the completion of 10 years of Credited Service, or 20 years of Credited Service)

Participation Not to exceed 96 months (60 months if hired on or after

September 26, 2016).

Rate of Return (a) 1.5% less than actuarial assumption at time of

DROP, or (b) Net Investment Return.

Form of Distribution Lump sum (options available) at termination of

employment.

Supplemental Benefit:

<u>Chapters 175 & 185 Share Accounts</u> As required by Statute, a Share Plan has been

established. Currently there is no funding for the Share Plan. In the future, if mutually agreed to by the City and a majority of Police Officers and Firefighters, a portion of the Chapter 175 and 185 premium tax revenues will be allocated to the Share Plan. The portion of the monies allocated to each Police Officer and Firefighter will be determined based upon their Credited Service.

Investment Earnings Plan earnings, net of investment-related expenses.

Expenses Based on expenses related to administration of the Share

Plan, debited against individual accounts on a pro-rata

basis.