

CITY OF KISSIMMEE  
MUNICIPAL POLICE OFFICERS' RETIREMENT FUND  
ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2023  
CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2024



December 28, 2023

Board of Trustees  
City of Kissimmee  
Police Officers' Pension Board

Re: City of Kissimmee Municipal Police Officers' Retirement Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Kissimmee Municipal Police Officers' Retirement Fund. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. 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 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 Kissimmee, 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 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.

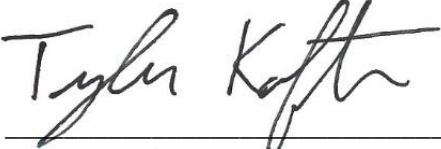
To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Kissimmee, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Municipal Police Officers' Retirement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

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

Respectfully submitted,

Foster & Foster, Inc.

By:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #23-7778

By:   
\_\_\_\_\_  
Tyler A. Koftan, EA, MAAA  
Enrolled Actuary #23-8685

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Kissimmee Municipal Police Officers' Retirement Fund, 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, 2024. The sponsor (City and State) contributions have been adjusted with interest and assumed salary increases to reflect a lump sum deposit on December 31, 2024.

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

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2023</u>
Minimum Required Contribution	\$4,725,002	\$3,944,093
Member Contributions (Est.)	562,436	527,465
<b>City And State Required Contribution</b>	<b>4,162,566</b>	<b>3,416,628</b>
State Contribution (Est.) <sup>1</sup>	1,177,117	1,177,117
City Required Contribution (Est.)	\$2,985,449	\$2,239,511
% of Projected Annual Payroll <sup>2</sup>	25.12%	20.54%

<sup>1</sup> 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 (up to \$1,177,117) will be available to offset the City's required contribution.

<sup>2</sup> Amounts shown as a percentage of payroll are for informational purposes, as the plan is funded on a dollar basis.

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 attributable to net unfavorable experience described on the following page.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an average salary increase of 12.29% which exceeded the 5.18% assumption, an investment return of 5.28% (Actuarial Asset Basis) which fell short of the 7.20% assumption, and unfavorable retirement experience. There were no significant sources of actuarial gain.

## 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

	<u>10/1/2023</u>	<u>10/1/2022</u>
A. Participant Data		
Actives	146	146
Service Retirees	111	110
DROP Retirees	4	4
Beneficiaries	10	11
Disability Retirees	10	10
Terminated Vested	<u>25</u>	<u>23</u>
Total	306	304
Projected Annual Payroll	11,191,073	10,317,050
Annual Rate of Payments to:		
Service Retirees	4,182,999	3,991,858
DROP Retirees	289,044	269,054
Beneficiaries	230,440	317,037
Disability Retirees	207,192	206,343
Terminated Vested	209,063	188,986
B. Assets		
Actuarial Value (AVA) <sup>1</sup>	85,879,982	82,765,038
Market Value (MVA) <sup>1</sup>	77,849,741	71,596,602
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	51,983,601	47,306,382
Disability Benefits	2,139,028	2,053,027
Death Benefits	249,592	232,863
Vested Benefits	1,944,321	1,839,705
Refund of Contributions	354,915	336,772
Service Retirees	50,012,213	47,962,125
DROP Retirees <sup>1</sup>	4,505,084	4,111,676
Beneficiaries	2,564,656	2,687,302
Disability Retirees	2,452,684	2,504,493
Terminated Vested	1,839,502	1,621,045
Share Plan Balances <sup>1</sup>	<u>276,704</u>	<u>193,485</u>
Total	118,322,300	110,848,875

C. Liabilities - (Continued)	<u>10/1/2023</u>	<u>10/1/2022</u>
Present Value of Future Salaries	88,081,742	81,742,797
Present Value of Future Member Contributions	3,849,172	3,629,380
Normal Cost (Retirement)	1,909,502	1,783,338
Normal Cost (Disability)	158,038	156,315
Normal Cost (Death)	16,402	16,209
Normal Cost (Vesting)	157,369	141,641
Normal Cost (Refunds)	57,928	55,083
Total Normal Cost	<u>2,299,239</u>	<u>2,152,586</u>
Present Value of Future Normal Costs	16,806,475	15,876,251
Accrued Liability (Retirement)	37,713,413	33,893,992
Accrued Liability (Disability)	943,705	878,988
Accrued Liability (Death)	132,671	120,268
Accrued Liability (Vesting)	1,009,318	945,943
Accrued Liability (Refunds)	65,875	53,307
Accrued Liability (Inactives) <sup>1</sup>	61,374,139	58,886,641
Share Plan Balances <sup>1</sup>	276,704	193,485
Total Actuarial Accrued Liability (EAN AL)	<u>101,515,825</u>	<u>94,972,624</u>
Unfunded Actuarial Accrued Liability (UAAL)	15,635,843	12,207,586
Funded Ratio (AVA / EAN AL)	84.6%	87.1%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2023</u>	<u>10/1/2022</u>
Vested Accrued Benefits		
Inactives + Share Plan Balances <sup>1</sup>	61,650,843	59,080,126
Actives	22,424,457	20,394,450
Member Contributions	<u>3,124,997</u>	<u>2,945,797</u>
Total	87,200,297	82,420,373
Non-vested Accrued Benefits	<u>2,603,099</u>	<u>2,562,449</u>
Total Present Value Accrued Benefits (PVAB)	89,803,396	84,982,822
Funded Ratio (MVA / PVAB)	86.7%	84.2%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	3,951,726	
Benefits Paid	(5,067,486)	
Interest	5,936,334	
Other	<u>0</u>	
Total	4,820,574	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2023</u>
E. Pension Cost		
Normal Cost <sup>2</sup>	\$2,644,261	\$2,478,651
Administrative Expenses <sup>2</sup>	71,291	57,903
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 26 years (as of 10/1/2023) <sup>2</sup>	2,009,450	1,407,539
Minimum Required Contribution	4,725,002	3,944,093
Expected Member Contributions <sup>2</sup>	562,436	527,465
Expected City and State Contribution	4,162,566	3,416,628
F. Past Contributions		
Plan Years Ending:	<u>9/30/2023</u>	
City and State Requirement	3,416,628	
Actual Contributions Made:		
City	2,239,511	
State	<u>1,177,117</u>	
Total	3,416,628	
G. Net Actuarial (Gain)/Loss	4,107,778	

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

<sup>2</sup> Contributions developed as of 10/1/2023 displayed above have been adjusted to account for assumed salary increase and interest components.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2023	15,635,843
2024	14,888,565
2025	14,087,480
2031	8,055,205
2037	1,960,252
2043	254,029
2049	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2023	12.29%	5.18%
Year Ended 9/30/2022	6.11%	5.08%
Year Ended 9/30/2021	3.70%	5.07%
Year Ended 9/30/2020	8.78%	5.27%
Year Ended 9/30/2019	6.93%	5.65%

(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 9/30/2023	10.70%	5.28%	7.20%
Year Ended 9/30/2022	-15.71%	3.61%	7.20%
Year Ended 9/30/2021	20.20%	10.84%	7.40%
Year Ended 9/30/2020	9.55%	8.60%	7.50%
Year Ended 9/30/2019	3.82%	8.46%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	\$11,191,073
	10/1/2013	7,065,530
(b) Total Increase		58.39%
(c) Number of Years		10.00
(d) Average Annual Rate		4.71%

STATEMENT BY ENROLLED ACTUARY

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



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Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #23-7778

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, 2022	\$12,207,586
(2) Sponsor Normal Cost developed as of October 1, 2022	1,694,509
(3) Expected administrative expenses for the year ended September 30, 2023	50,286
(4) Expected interest on (1), (2) and (3)	1,002,761
(5) Sponsor contributions to the System during the year ended September 30, 2023	3,416,628
(6) Expected interest on (5)	10,449
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	11,528,065
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	4,107,778
(10) Unfunded Actuarial Accrued Liability as of October 1, 2023	15,635,843

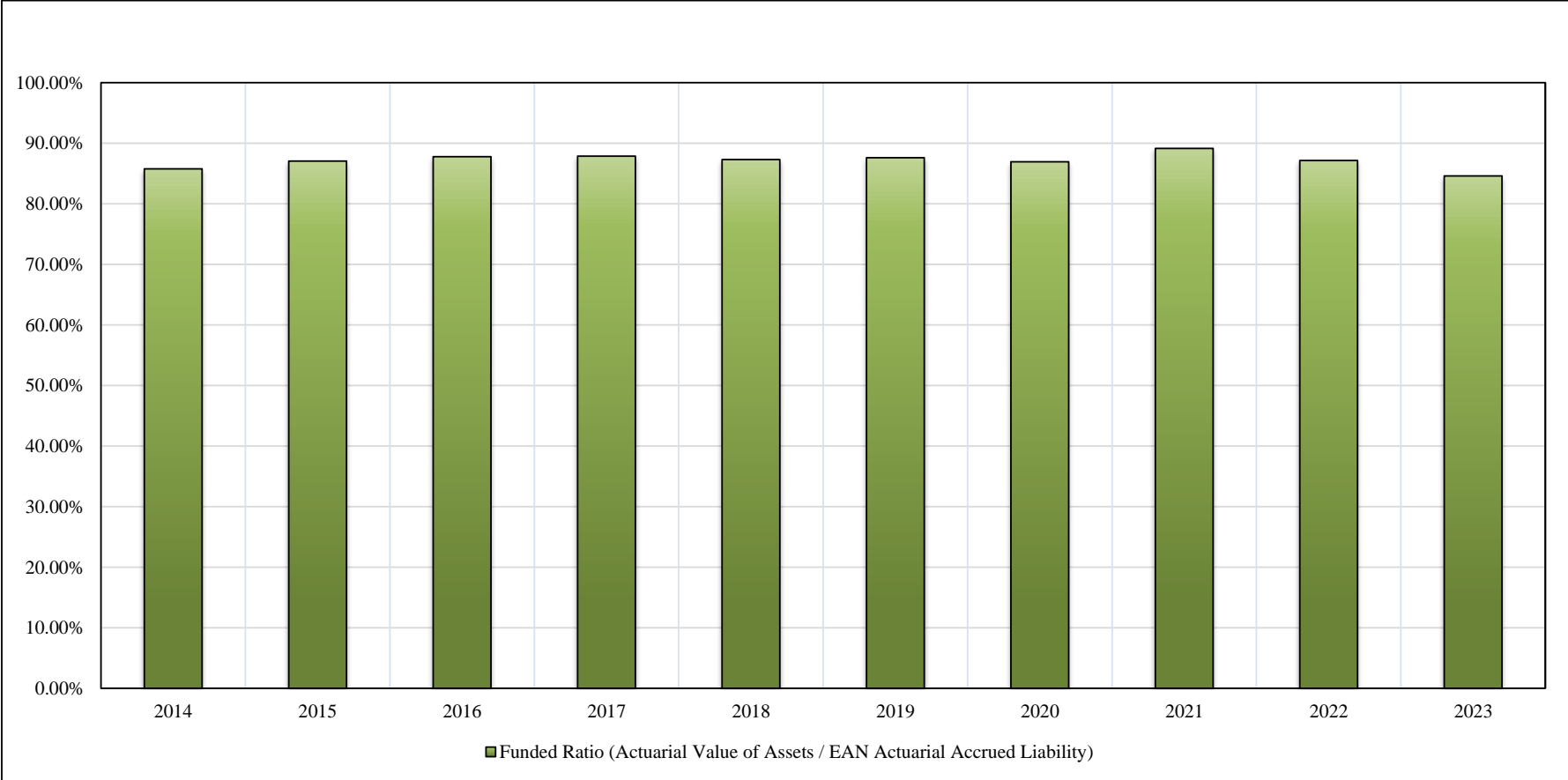
Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2023 <u>Amount</u>	Amortization <u>Amount</u>
Fresh Start	10/1/2018	15	7,562,538	784,371
Actuarial Gain	10/1/2019	6	(50,403)	(9,925)
Benefits Change	10/1/2019	26	622,615	50,023
Actuarial Loss	10/1/2020	7	876,560	152,784
Assump Change	10/1/2020	17	441,211	42,742
Actuarial Gain	10/1/2021	8	(2,237,166)	(352,203)
Assump Change	10/1/2021	18	1,866,272	175,576
Actuarial Loss	10/1/2022	9	2,446,438	353,261
Actuarial Loss	10/1/2023	10	4,107,778	550,629
			<u>15,635,843</u>	<u>1,747,258</u>

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	\$12,207,586
(2) Expected UAAL as of October 1, 2023	11,528,065
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	1,557,413
Salary Increases	1,907,030
Active Decrements	849,799
Inactive Mortality	(171,573)
Other	<u>(34,891)</u>
Increase in UAAL due to (Gain)/Loss	4,107,778
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2023	\$15,635,843



# HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** PubS.H-2010 (Below Median) for Employees, set forward one year.

**Male:** PubS.H-2010 (Below Median) 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.

3% of service-incurred deaths are assumed to be the result of an intentional act of violence.

Interest Rate

7.20% 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

<u>Credited Service</u>	<u>Assumption</u>
Less than 1	10.0%
1-2	5.5%
3-9	5.0%
10 or more	4.5%

The above rates were adopted as a result of the September 13, 2018 Experience Study.

Final Salary Load

<u>Credited Service as of 10/1/2013</u>	<u>Assumption</u>
At least 15	5.0%
10-15 years	2.5%
Less than 10 years	0.0%

The above rates were developed using data provided by the City.

Payroll Growth

0.00% 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

\$61,989 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: 10 Years.
- Assumption/Method Changes: 20 Years.
- Benefit Changes: 30 Years.

The amortization payment is subject to a minimum based on a 30-year amortization of the UAAL 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.

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 minimis 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 determining the minimum required contribution:

- Interest - 1.25 years, based on current 7.20% assumption.
- Salary - A full year, based on current 5.51% assumption.

Marriage Rates

100% of the Members are assumed to be married, with males 3 years older than females.

Termination

10.0% for Members with less than 4 years of Credited Service, and 4.0% for Members with between 5 and 19 years of Credited Service. No terminations are assumed upon completion of 20 or more years of Credited Service. The above rates were adopted as a result of the September 13, 2018 Experience Study.

Disability

Sample rates from Table 1205 below. Service connected rate is assumed at 75%.

<u>Age</u>	<u>% Becoming Disabled During the Year</u>
20	0.14%
30	0.18%
40	0.30%
50	1.00%

The above rates were reviewed and adopted as a result of the September 13, 2018 Experience Study.

Normal Retirement

For Members with less than 25 years of Credited Service: 50% at age 50, 20% for ages 51-54, and 100% for ages 55 and above.

For Members with at least 25 years of Credited Service: 40% at years 25 and 26, and 100% upon the completion of at least 27 years of Credited Service.

The above rates were adopted as a result of the September 13, 2018 Experience Study.

Early Retirement

2% for ages 40-44, and 10% for ages 45 and older. These rates were adopted as a result of the September 13, 2018 Experience Study.

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.

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.

Market Value of Assets 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.

Payroll Under Assumed Ret. Age 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.

Projected Annual Payroll is the projected annual rate of pay for the fiscal year following the fiscal year beginning on 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 plan participants.

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

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

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.

## 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.

- Investment Return: 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.
- Salary Increases: 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.
- 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 124.0% on October 1, 2013 to 100.0% 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 60.5%. 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 82.4% on October 1, 2013 to 84.6% 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 0.1% on October 1, 2013 to -1.5% on October 1, 2023. The current Net Cash Flow Ratio of -1.5% 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 \$135,881,652. 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

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2018</u>	<u>10/1/2013</u>
<u>Support Ratio</u>				
Total Actives	146	146	133	124
Total Inactives <sup>1</sup>	146	145	123	100
Actives / Inactives <sup>1</sup>	100.0%	100.7%	108.1%	124.0%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	77,849,741	71,596,602	67,355,649	47,061,815
Total Annual Payroll	11,416,861	10,526,337	8,752,032	7,065,530
MVA / Total Annual Payroll	681.9%	680.2%	769.6%	666.1%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	61,374,139	58,886,641	45,627,829	30,706,695
Total Accrued Liability (EAN)	101,515,825	94,972,624	75,632,029	54,641,542
Inactive AL / Total AL	60.5%	62.0%	60.3%	56.2%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	85,879,982	82,765,038	66,029,474	45,040,678
Total Accrued Liability (EAN)	101,515,825	94,972,624	75,632,029	54,641,542
AVA / Total Accrued Liability (EAN)	84.6%	87.1%	87.3%	82.4%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	(1,167,942)	(1,801,771)	(700,988)	26,599
Market Value of Assets (MVA)	77,849,741	71,596,602	67,355,649	47,061,815
Ratio	-1.5%	-2.5%	-1.0%	0.1%

<sup>1</sup> Excludes terminated participants awaiting a refund of member contributions.

<sup>2</sup> Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	282,883.16	_____%
1999	321,718.42	13.7%
2000	335,055.10	4.1%
2001	366,871.49	9.5%
2002	418,261.60	14.0%
2003	488,351.73	16.8%
2004	549,091.48	12.4%
2005	623,448.79	13.5%
2006	635,012.36	1.9%
2007	623,448.79	-1.8%
2008	623,448.79	0.0%
2009	558,058.33	-10.5%
2010	482,404.62	-13.6%
2011	489,062.57	1.4%
2012	482,043.69	-1.4%
2013	520,621.69	8.0%
2014	501,392.28	-3.7%
2015	521,205.94	4.0%
2016	582,137.66	11.7%
2017	655,117.24	12.5%
2018	746,619.92	14.0%
2019	799,085.17	7.0%
2020	1,080,755.51	35.2%
2021	950,853.90	-12.0%
2022	1,095,725.20	15.2%
2023	1,249,688.42	14.1%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2023

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Money Market	1,346,703.00	1,346,703.00
Cash	2.30	2.30
Total Cash and Equivalents	1,346,705.30	1,346,705.30
Receivables:		
Additional City Contributions	2,239,501.32	2,239,501.32
Investment Income	99,587.58	99,587.58
Total Receivable	2,339,088.90	2,339,088.90
Investments:		
Fixed Income	20,573,269.03	17,992,961.25
Equities	26,025,449.82	31,202,230.79
Mutual Funds:		
Equity	3,143,116.78	13,423,062.61
Pooled/Common/Commingled Funds:		
Equity	1,887,561.84	3,514,003.03
Real Estate	5,406,511.31	8,148,743.10
Total Investments	57,035,908.78	74,281,000.78
Total Assets	60,721,702.98	77,966,794.98
<u>LIABILITIES</u>		
Payables:		
Refunds of Member Contributions	13,119.38	13,119.38
DROP Distributions	74,380.15	74,380.15
Investment Expenses	29,554.41	29,554.41
Total Liabilities	117,053.94	117,053.94
NET POSITION RESTRICTED FOR PENSIONS	60,604,649.04	77,849,741.04

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

ADDITIONS

Contributions:			
Member		481,188.05	
City		2,239,511.00	
State		1,249,688.42	
Total Contributions			3,970,387.47
Investment Income:			
Miscellaneous Income			
Net Realized Gain (Loss)	149,121.52		
Unrealized Gain (Loss)	5,504,834.71		
Net Increase in Fair Value of Investments		5,653,956.23	
Interest & Dividends		1,925,039.20	
Less Investment Expense <sup>1</sup>		(157,914.09)	
Net Investment Income			7,421,081.34
Total Additions			11,391,468.81
<u>DEDUCTIONS</u>			
Distributions to Members:			
Benefit Payments		4,517,990.37	
Lump Sum DROP Distributions		454,452.44	
Lump Sum Share Distributions		12,419.53	
Refunds of Member Contributions		82,623.88	
Total Distributions			5,067,486.22
Administrative Expense			70,843.06
Total Deductions			5,138,329.28
Net Increase in Net Position			6,253,139.53
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			71,596,601.51
End of the Year			77,849,741.04

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

ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2023

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>	
09/30/2020	9.55%	
09/30/2021	20.20%	
09/30/2022	-15.71%	
09/30/2023	10.70%	
Annualized Rate of Return for prior four (4) years:		5.28%
(A) 10/01/2022 Actuarial Assets, including Prepaid Contributions:		\$82,766,795.33
(I) Net Investment Income:		
1. Interest and Dividends	1,925,039.20	
2. Realized Gain (Loss)	149,121.52	
3. Unrealized Gain (Loss)	5,504,834.71	
4. Change in Actuarial Value	(3,138,196.20)	
5. Investment Related Expenses	(157,914.09)	
Total		4,282,885.14
(B) 10/01/2023 Actuarial Assets, excluding Shortfall Contribution:		\$83,640,480.39
Actuarial Asset Rate of Return = $2I/(A+B-I)$ , based on Unlimited Actuarial Assets:		5.28%
10/01/2023 Limited Actuarial Assets, including Shortfall Contribution		\$85,879,981.71
10/01/2023 Market Value of Assets, including Shortfall Contribution		\$77,849,741.04
Actuarial Asset Rate of Return, based on Limited Actuarial Assets:		5.28%
Actuarial Gain/(Loss) due to Investment Return (Limited Actuarial Asset Basis)		(\$1,557,412.78)

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

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

REVENUES

Contributions:		
Member	481,188.05	
City	2,239,511.00	
State	1,249,688.42	
<b>Total Contributions</b>		<b>3,970,387.47</b>
Earnings from Investments:		
Interest & Dividends	1,925,039.20	
Net Realized Gain (Loss)	149,121.52	
Unrealized Gain (Loss)	5,504,834.71	
Change in Actuarial Value	(3,138,196.20)	
<b>Total Earnings and Investment Gains</b>		<b>4,440,799.23</b>

EXPENDITURES

Distributions to Members:		
Benefit Payments	4,517,990.37	
Lump Sum DROP Distributions	454,452.44	
Lump Sum Share Distributions	12,419.53	
Refunds of Member Contributions	82,623.88	
<b>Total Distributions</b>		<b>5,067,486.22</b>
Expenses:		
Investment related <sup>1</sup>	157,914.09	
Administrative	70,843.06	
<b>Total Expenses</b>		<b>228,757.15</b>
<b>Change in Net Assets for the Year</b>		<b>3,114,943.33</b>
<b>Net Assets Beginning of the Year</b>		<b>82,765,038.38</b>
<b>Net Assets End of the Year<sup>2</sup></b>		<b>85,879,981.71</b>

<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, 2022 to September 30, 2023

Beginning of the Year Balance	567,904.02
Plus Additions	405,621.04
Investment Return Earned	24,810.59
Less Distributions	(454,452.44)
End of the Year Balance	543,883.21

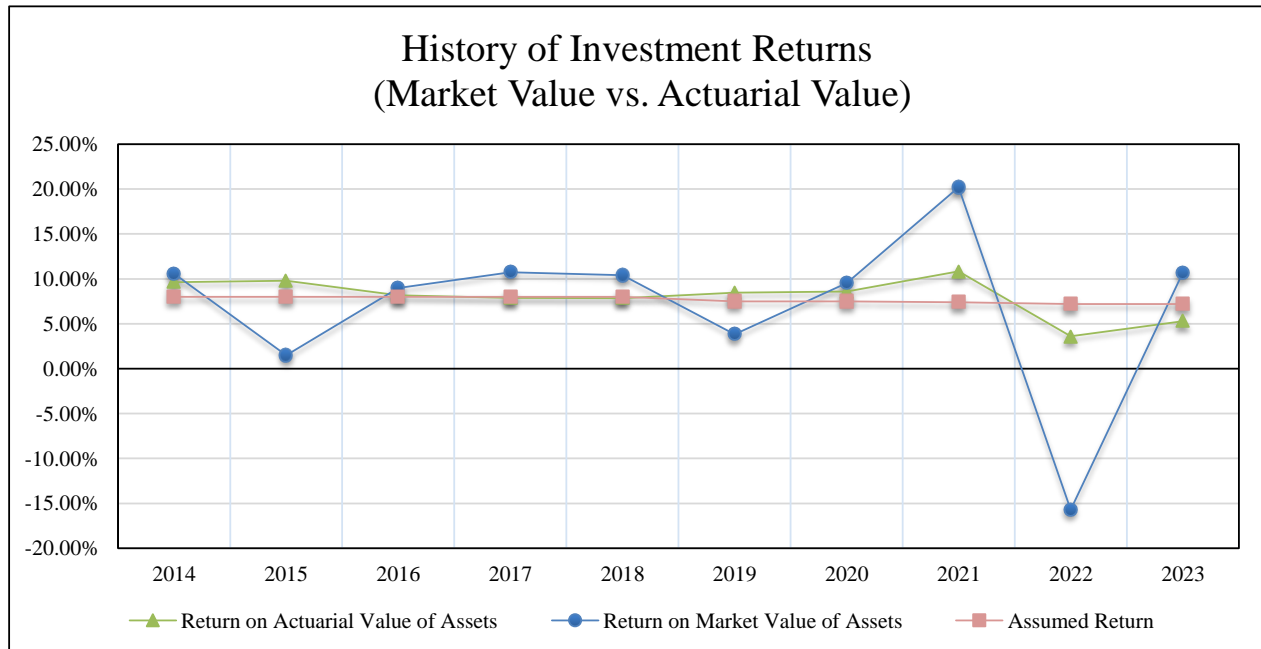
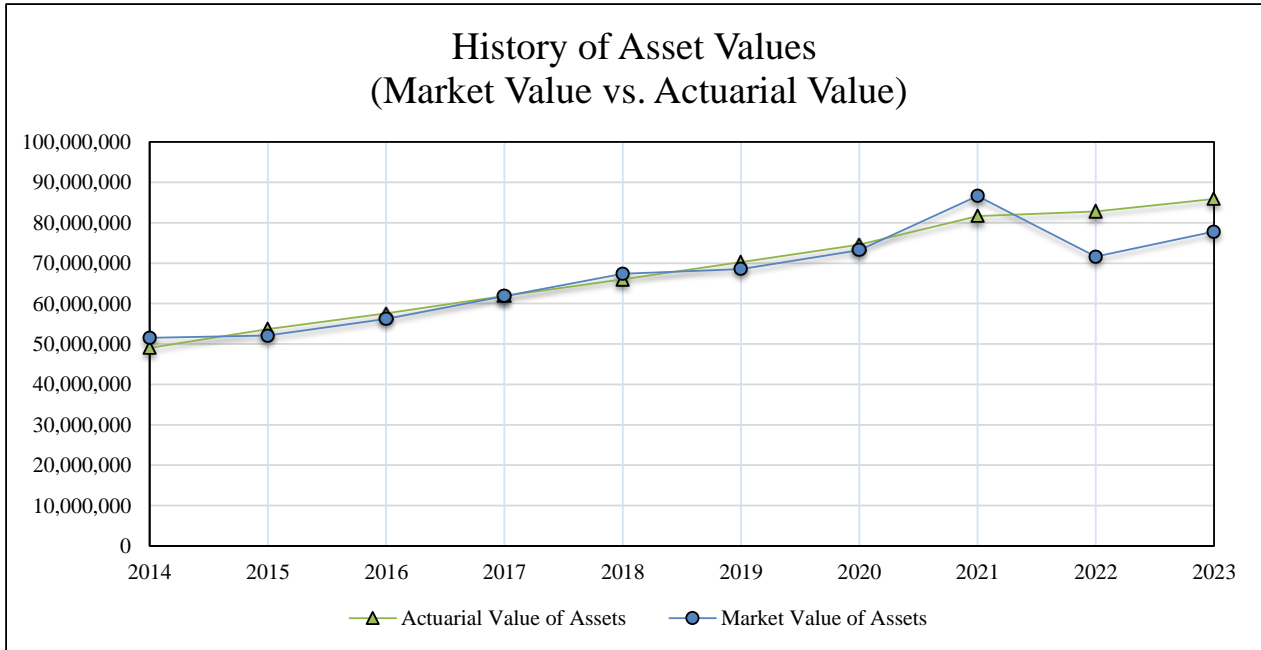
SUPPLEMENTAL CHAPTER 185 SHARE PLAN ACTIVITY  
October 1, 2022 through September 30, 2023

9/30/2022 Balance	193,484.94
Prior Year Adjustment	3,335.88
Plus Additions	72,571.42
Investment Return Earned (Est.)	19,731.00
Administrative Fees (Est.)	0.00
Less Distributions	<u>(12,419.53)</u>
9/30/2023 Balance (Est.)	276,703.71

RECONCILIATION OF CITY SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2023

(1) Required City and State Contributions	\$3,416,628.00
(2) Less Allowable State Contribution	<u>(1,177,117.00)</u>
(3) Required City Contribution for Fiscal 2023	2,239,511.00
(4) Less 2022 Prepaid Contribution	0.00
(5) Less Actual City Contributions	<u>(2,239,511.00)</u>
(6) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2023	\$0.00

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



## STATISTICAL DATA

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>
<u>Actives</u>				
Number	146	146	134	132
Average Current Age	37.0	36.7	37.0	37.2
Average Age at Employment	28.1	28.2	28.2	28.6
Average Past Service	8.9	8.5	8.8	8.6
Average Annual Salary	\$78,198	\$72,098	\$70,852	\$70,041
<u>Service Retirees</u>				
Number	111	110	105	101
Average Current Age	60.5	59.9	59.6	59.5
Average Annual Benefit	\$37,685	\$36,290	\$35,070	\$35,614
<u>DROP Retirees</u>				
Number	4	4	8	9
Average Current Age	52.0	52.2	51.8	51.5
Average Annual Benefit	\$72,261	\$67,264	\$63,102	\$53,408
<u>Beneficiaries</u>				
Number	10	11	9	8
Average Current Age	59.3	59.2	57.8	59.8
Average Annual Benefit	\$23,044	\$28,822	\$25,947	\$25,069
<u>Disability Retirees</u>				
Number	10	10	10	10
Average Current Age	56.8	55.8	54.8	53.8
Average Annual Benefit	\$20,719	\$20,634	\$20,572	\$20,376
<u>Terminated Vested</u>				
Number	25	23	26	26
Average Current Age <sup>1</sup>	39.6	39.2	41.9	41.2
Average Annual Benefit <sup>1</sup>	\$19,006	\$18,899	\$18,082	\$17,988

<sup>1</sup> 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	1											1
25 - 29	4	12	9	3	1	3						32
30 - 34	4	4	4	1	7	11						31
35 - 39		1		2		9	11	3				26
40 - 44		1		1	2	3	4	9	1			21
45 - 49			1			3	4	12	5	2		27
50 - 54						3		2		1		6
55 - 59						1						1
60 - 64									1			1
65+												0
<b>Total</b>	<b>9</b>	<b>18</b>	<b>14</b>	<b>7</b>	<b>10</b>	<b>33</b>	<b>19</b>	<b>26</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>146</b>

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	146
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	(1)
iii. Refund of member contributions or full lump sum distribution	(8)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. DROP	(1)
g. Continuing participants	133
h. New entrants / Rehires	13
i. Total active life participants in valuation	<u>146</u>

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 (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	110	4	11	10	10	13	158
Retired	3	(1)					2
DROP		1					1
Vested (Deferred Annuity)					1		1
Vested (Due Refund)						1	1
Hired/Terminated in Same Year						2	2
Death, With Survivor	(1)		1				0
Death, No Survivor	(1)		(1)				(2)
Disabled							0
Refund of Contributions						(1)	(1)
Rehires						(1)	(1)
Expired Annuities			(1)				(1)
Data Corrections							0
b. Number current valuation	111	4	10	10	11	14	160

## SUMMARY OF CURRENT PLAN

<u>Eligibility</u>	All regular sworn Police Officers.
<u>Compensation</u>	Total compensation paid to a police officer for services rendered, including lump sum sick leave, but not including special assignment and special detail pay.
<u>Average Final Compensation (AFC)</u>	Average salary during the five best consecutive years of the last ten years of service. The AFC as of May 6, 2014 will be determined under the previous AFC definition and preserved as a minimum AFC for determining the final benefit.
<u>Retirement Age</u>	
Normal	The earlier of (1) Age 50 and 10 years of credited service or (2) 25 years of credited service regardless of age.
Early	Age 40 and 15 years of credited service.
<u>Retirement Benefits</u>	
Normal	Hired prior to May 6, 2014: 3.50% of AFC for each year of service subject to a maximum of 100% of AFC.  Hired on or after May 6, 2014: 3.00% of AFC for each year of service subject to a maximum of 100% of AFC.
Early	Same as Normal except reduced actuarially from Normal Retirement Date.
Delayed	Benefit continues to accrue.
Normal Form	Ten Year Certain and Life Annuity with other options available.
<u>Disability Retirement</u>	
Eligibility	All Members are eligible for line of duty benefit; five years of credited service needed for non-line of duty.
Benefit	Accrued pension benefit with a minimum of 42% of AFC if line of duty or 25% of AFC if non-line of duty. Under certain conditions, the minimum line of duty benefit is 80% of AFC.



Death Benefits (Pre-Retirement)

Non-Line-of-Duty

- Less than 5 years of credited service      Return of Accumulated Member Contributions.
  
- Five or more 5 years of credited service      Beneficiary will receive a monthly income, payable in the form of a ten year certain and life annuity, which can be provided by (a) or (b), whichever is greater, where:
  - (a) is the single-sum value of the Member's accrued benefit, and
  - (b) is the smaller of (i) or (ii), where
    - (i) is 24 times Average Compensation, and
    - (ii) is 100 times the anticipated monthly normal retirement benefit.

Line-of-Duty

- No Intentional Act of Violence      Beneficiary will receive a monthly income, payable in the form of a ten year certain and life annuity, which can be provided by (a) or (b), whichever is greater, where:
  - (a) is the single-sum value of the Member's accrued benefit, and
  - (b) is the smaller of (i) or (ii), where
    - (i) is 24 times Average Compensation, and
    - (ii) is 100 times the anticipated monthly normal retirement benefit.

- Intentional Act of Violence      The surviving spouse will receive a lifetime benefit equal to 100% of the Member's monthly salary at the time of death, but not less than a benefit which as the same value as 10 years of payments of the Member's accrued benefit at the time of death.  
  
Non-spousal beneficiaries receive benefits determined under the No Intentional Act of Violence provisions.

Termination Benefits

Prior to May 6, 2014

Less than five years of credited service – return of employee contributions with 4.50% interest.

Five years or more – vested portion of accrued pension payable at age 50 or earlier, if contributions left in the fund, or refund of contributions with interest. Vested portion is as follows:

<u>Service</u>	<u>Vested %</u>
Less than 5 years	0%
5	25
6	30
7	35
8	40
9	45
10	100

On or After May 6, 2014

Less than ten years of credited service – return of employee contributions with 4.50% interest.

Ten years or more – vested portion of accrued pension payable at age 50 or earlier, if contributions left in the fund, or refund of contributions with interest.

Deferred Retirement Option Plan (DROP)

Members who continue in employment past normal retirement date may either accrue larger pensions or freeze their accrued benefit and enter the DROP. Each participant in the DROP has an account credited with benefits not received and investment earnings.

Cost of Living Allowance

Each retiree, beneficiary and disability retiree who retires after October 1, 1998 will receive a 1.00% increase in benefits each year on October 1<sup>st</sup> from age 55 to age 65. Effective May 6, 2014, Members who retire prior to the normal retirement date shall not be eligible for a cost-of-living adjustment.

Contributions

Employees	3.70% of Compensation for those hired prior to May 6, 2014. 5.00% of Compensation for those hired on or after May 6, 2014.
State	Premium tax refund per Chapter 185.
City	Remaining amount necessary according to State laws.

Supplement Benefit (Share Accounts)

Initial Crediting	Pursuant to a Mutual Consent Agreement between the City and PBA, \$218,479.46 from the Excess State Monies Reserve is allocated to eligible participants.
Annual Crediting	Annual Premium tax revenues received by the City in excess of the \$1,177,117 applicable frozen amount shall be equally allocated to participant accounts.
Investment earnings	Eligible Share Accounts shall be credited or debited annually, based on the Plan's net-of-fees investment performance for the immediately preceding Plan Year.
Vesting	The same vesting provisions applicable to the accrued benefit under Sec. 2-6-88.
Eligibility for Distribution	Eligible for Normal or Early Retirement.