

CITY OF VENICE
MUNICIPAL FIREFIGHTERS' PENSION TRUST FUND
ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2025



November 27, 2023

Board of Trustees
City of Venice
Firefighters' Pension Board

Re: City of Venice Municipal Firefighters' Pension Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Venice Municipal Firefighters' Pension Trust 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 175, 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 valuations, 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 Venice, 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.

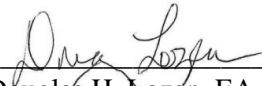
In our opinion, the Minimum Required Contribution set forth in this report constitutes a reasonable actuarially determined contribution under ASOP No. 4.

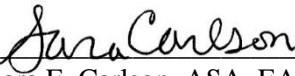
The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the 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 Venice, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Municipal Firefighters' Pension Trust 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: 
Sara E. Carlson, ASA, EA, MAAA
Enrolled Actuary #23-8546

Enclosures

TABLE OF CONTENTS

Section	Title	Page
I	Introduction	
	a. Summary of Report	5
	b. Changes Since Prior Valuation	6
	c. Comparative Summary of Principal Valuation Results	7
II	Valuation Information	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	13
	b. Detailed Actuarial (Gain)/Loss Analysis	14
	c. History of Funding Progress	15
	d. Actuarial Assumptions and Methods	16
	e. Glossary	20
	f. Discussion of Risk	22
	g. Partial History of Premium Tax Refunds	26
III	Trust Fund	27
IV	Member Statistics	
	a. Statistical Data	34
	b. Age and Service Distribution	35
	c. Valuation Participant Reconciliation	36
V	Summary of Current Plan	37

SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Venice Municipal Firefighters' Pension Trust 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, 2025.

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>9/30/2025</u>	<u>9/30/2024</u>
Minimum Required Contribution	\$2,485,581	\$2,617,686
Member Contributions (Est.)	86,596	97,202
City And State Required Contribution	2,398,985	2,520,484
State Contribution (Est.) ¹	370,965	370,965
City Required Contribution	\$2,028,020	\$2,149,519

¹ Based on amounts received in calendar 2023. As per a Mutual Consent Agreement between the Membership and the City, the City may use up to \$296,000 annually as a contribution credit. State Monies in excess of \$296,000 are split equally between the Membership Share Plan and City funding credit.

As you can see, the Minimum Required Contribution decreased in comparison to the results set forth in the October 1, 2022 actuarial valuation report. The decrease is attributable to a reduction in the Normal Cost associated with two retirements during the prior fiscal year, in addition to excess City contributions applied to the Unfunded Actuarial Accrued Liability and net favorable actuarial experience described in the next paragraph.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included inactive mortality experience, favorable retirement experience, and an average salary increase of 1.61% which fell short of the 3.95% assumption. These gains were offset in part by a loss associated with an investment return of 4.85% (Actuarial Asset Basis) which fell short of the 6.50% assumption.

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	12	14
Service Retirees	39	37
Beneficiaries	9	8
Disability Retirees	4	4
Terminated Vested	<u>13</u>	<u>14</u>
Total	77	77
Projected Annual Payroll	1,152,722	1,293,538
Annual Rate of Payments to:		
Service Retirees	2,560,313	2,486,382
Beneficiaries	237,182	195,158
Disability Retirees	75,650	75,650
Terminated Vested	232,956	242,506
B. Assets		
Actuarial Value (AVA) ¹	33,868,557	32,325,635
Market Value (MVA) ¹	31,474,411	28,720,835
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	11,242,756	12,388,660
Disability Benefits	184,018	216,515
Death Benefits	27,167	31,882
Vested Benefits	94,216	150,428
Refund of Contributions	0	0
Service Retirees	33,768,359	33,339,109
Beneficiaries	2,015,153	1,565,188
Disability Retirees	929,055	954,488
Terminated Vested	2,221,346	2,201,546
Share Plan Balances ¹	<u>78,471</u>	<u>4,186</u>
Total	50,560,541	50,852,002

C. Liabilities - (Continued)	<u>10/1/2023</u>	<u>10/1/2022</u>
Present Value of Future Salaries	3,426,534	4,195,482
Present Value of Future Member Contributions	239,857	293,684
Normal Cost (Retirement)	256,809	292,735
Normal Cost (Disability)	24,008	27,950
Normal Cost (Death)	4,707	5,554
Normal Cost (Vesting)	58,992	74,766
Normal Cost (Refunds)	<u>0</u>	<u>0</u>
Total Normal Cost	344,516	401,005
Present Value of Future Normal Costs	871,548	1,120,880
Accrued Liability (Retirement)	10,537,752	11,510,655
Accrued Liability (Disability)	124,350	140,219
Accrued Liability (Death)	14,507	15,731
Accrued Liability (Vesting)	0	0
Accrued Liability (Refunds)	0	0
Accrued Liability (Inactives)	38,933,913	38,060,331
Share Plan Balances ¹	<u>78,471</u>	<u>4,186</u>
Total Actuarial Accrued Liability (EAN AL)	49,688,993	49,731,122
Unfunded Actuarial Accrued Liability (UAAL)	15,820,436	17,405,487
Funded Ratio (AVA / EAN AL)	68.2%	65.0%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2023</u>	<u>10/1/2022</u>
Vested Accrued Benefits		
Inactives + Share Plan Balances ¹	39,012,384	38,064,517
Actives	7,906,936	8,485,245
Member Contributions	<u>1,455,772</u>	<u>1,623,722</u>
Total	48,375,092	48,173,484
 Non-vested Accrued Benefits	 <u>0</u>	 <u>0</u>
Total Present Value		
Accrued Benefits (PVAB)	48,375,092	48,173,484
 Funded Ratio (MVA / PVAB)	 65.1%	 59.6%
 Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	155,171	
Benefits Paid	(2,987,738)	
Interest	3,034,175	
Other	<u>0</u>	
Total	201,608	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2025</u>	<u>9/30/2024</u>
E. Pension Cost		
Normal Cost ²	\$369,728	\$430,475
Administrative Expenses ²	72,979	68,178
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2023) ²	2,042,874	2,119,033
Minimum Required Contribution	2,485,581	2,617,686
Expected Member Contributions ²	86,596	97,202
Expected City and State Contribution	2,398,985	2,520,484
F. Past Contributions		
Plan Years Ending:	<u>9/30/2023</u>	
City and State Requirement	2,481,007	
Actual Contributions Made:		
City	2,492,308	
State	<u>370,965</u>	
Total	2,863,273	
G. Net Actuarial (Gain)/Loss	(166,289)	

¹ The asset values and liabilities include accumulated 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 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	15,820,436
2024	14,821,462
2025	13,757,555
2028	10,132,640
2032	4,100,626
2035	314,226
2038	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2023	1.61%	3.95%
Year Ended 9/30/2022	7.57%	3.97%
Year Ended 9/30/2021	4.19%	5.44%
Year Ended 9/30/2020	2.04%	5.89%
Year Ended 9/30/2019	3.50%	5.90%

(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	9.78%	4.85%	6.50%
Year Ended 9/30/2022	-14.09%	2.92%	6.50%
Year Ended 9/30/2021	19.86%	9.15%	6.75%
Year Ended 9/30/2020	6.92%	7.07%	7.00%
Year Ended 9/30/2019	1.90%	7.16%	7.00%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	\$1,152,722
	10/1/2013	2,887,391
(b) Total Increase		-60.08%
(c) Number of Years		10.00
(d) Average Annual Rate		-8.77%

STATEMENT BY ENROLLED ACTUARY

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



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #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

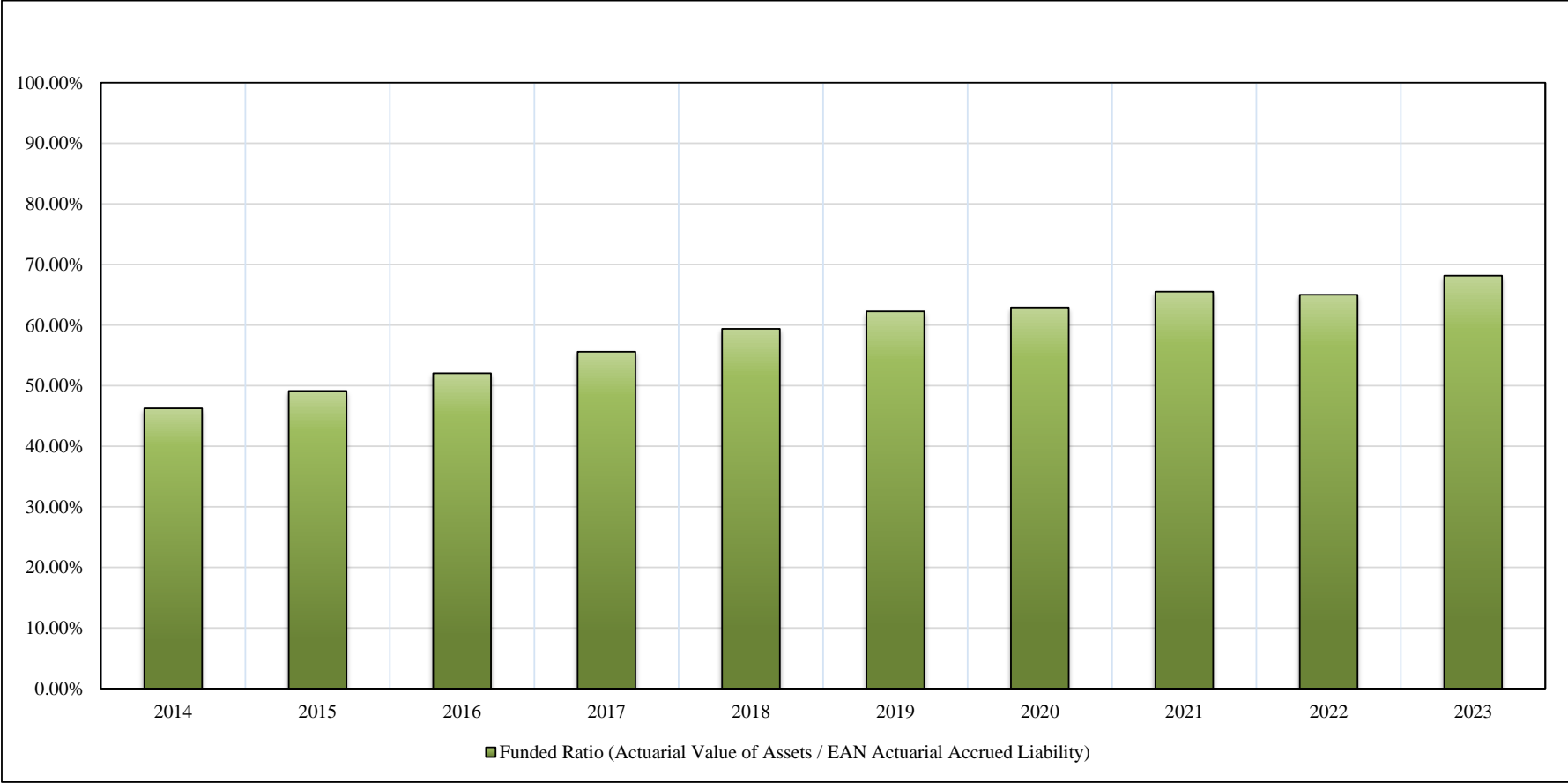
(1) Unfunded Actuarial Accrued Liability as of October 1, 2022	\$17,405,487
(2) Sponsor Normal Cost developed as of October 1, 2022	310,457
(3) Expected administrative expenses for the year ended September 30, 2023	63,511
(4) Expected interest on (1), (2) and (3)	1,153,600
(5) Sponsor contributions to the System during the year ended September 30, 2023	2,863,273
(6) Expected interest on (5)	83,057
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	15,986,725
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	(166,289)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2023	15,820,436

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2023 Amount</u>	<u>Amortization Amount</u>
Consolidation Base	10/1/2021	11	14,199,120	1,733,962
Actuarial Loss	10/1/2022	14	1,787,605	186,214
Actuarial Gain	10/1/2023	15	(166,289)	(16,606)
			15,820,436	1,903,570

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	\$17,405,487
(2) Expected UAAL as of October 1, 2023	15,986,725
 (3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	533,344
Salary Increases	(133,676)
Active Decrements	(230,021)
Inactive Mortality	(300,075)
Interest Crediting on Share Plan Balances	105
Other	<u>(35,966)</u>
Increase in UAAL due to (Gain)/Loss	(166,289)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2023	\$15,820,436

HISTORY OF FUNDING PROGRESS



ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

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

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

Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) 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

6.50% 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
<10	10.00%
10	7.50%
11	5.00%
12	5.00%
13	5.00%
14	5.00%
15-19	4.00%
20+	3.75%

The rates are based on results of the September 10, 2021 experience study.

Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability.

Administrative Expenses

\$68,003 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Marriage Assumption

All active members are assumed married, with males 3 years older than females.

Amortization Method

New UAAL amortization bases are amortized over 15 years.

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.

Funding Method

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

- Interest - a half year, based on current 6.50% assumption.
- Salary - A full year, based on current 3.94% assumption.

Cost-of-Living Adjustment

3% per year from retirement to age 65. Benefits based on Credited Service after September 30, 2014 are not subject to the COLA.

Termination Rate

% Terminating During the Year	
Service	Rate
<10	10.00%
10	8.00%
11	8.00%
12	8.00%
13	2.00%
14	2.00%
15-19	2.00%
20+	0.00%

The rates are based on results of the September 10, 2021 experience study.

Retirement Age

Earlier of age 55 and 10 years of service or 25 years of service, regardless of age. Also, any Member who reaches Normal Retirement is assumed to continue employment for one additional year. This assumption is based upon results of the September 10, 2021 experience study.

Early Retirement

Commencing with eligibility for Early Retirement Age (Earlier of age 50 with 10 years of service or 20 years of service, regardless of age), Members are assumed to retire with an immediate subsidized benefit at the rate of 15% per year. There is no Early Retirement assumption for Members with less than 10 years of Credited Service as of October 1, 2014. This assumption is based upon results of the September 10, 2021 experience study.

Disability Rate

Sample rates below, based on results of the September 10, 2021 experience study:

% Becoming Disabled During the Year	
Age	Rate
20	0.14%
25	0.15%
30	0.18%
35	0.23%
40	0.30%
45	0.51%
50	1.00%
55	1.55%
59+	2.09%

Asset Valuation Method

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

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 84.1% on October 1, 2013 to 18.5% 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 78.4%. 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 46.4% on October 1, 2013 to 68.2% 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 0.5% on October 1, 2013 to -0.1% on October 1, 2023. The current Net Cash Flow Ratio of -0.1% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section 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.

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, including the use of 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 \$59,696,694. 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	12	14	22	37
Total Inactives ¹	65	63	57	44
Actives / Inactives ¹	18.5%	22.2%	38.6%	84.1%

Asset Volatility Ratio

Market Value of Assets (MVA)	31,474,411	28,720,835	25,638,236	16,697,019
Total Annual Payroll	1,152,722	1,293,538	1,829,660	2,584,003
MVA / Total Annual Payroll	2,730.4%	2,220.3%	1,401.3%	646.2%

Accrued Liability (AL) Ratio

Inactive Accrued Liability	38,933,913	38,060,331	29,317,906	23,533,881
Total Accrued Liability (EAN)	49,688,993	49,731,122	42,316,755	34,443,380
Inactive AL / Total AL	78.4%	76.5%	69.3%	68.3%

Funded Ratio

Actuarial Value of Assets (AVA)	33,868,557	32,325,635	25,122,791	15,993,985
Total Accrued Liability (EAN)	49,688,993	49,731,122	42,316,755	34,443,380
AVA / Total Accrued Liability (EAN)	68.2%	65.0%	59.4%	46.4%

Net Cash Flow Ratio

Net Cash Flow ²	(24,786)	(267,990)	634,983	76,042
Market Value of Assets (MVA)	31,474,411	28,720,835	25,638,236	16,697,019
Ratio	-0.1%	-0.9%	2.5%	0.5%

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

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1999	125,041.12	_____%
2000	177,255.46	41.8%
2001	176,495.28	-0.4%
2002	194,519.07	10.2%
2003	166,236.19	-14.5%
2004	180,446.49	8.5%
2005	192,363.23	6.6%
2006	239,238.99	24.4%
2007	355,709.22	48.7%
2008	391,694.05	10.1%
2009	233,461.64	-40.4%
2010	262,094.82	12.3%
2011	251,217.11	-4.2%
2012	272,498.46	8.5%
2013	270,222.11	-0.8%
2014	304,801.85	12.8%
2015	272,353.29	-10.6%
2016	246,275.58	-9.6%
2017	193,289.58	-21.5%
2018	180,163.45	-6.8%
2019	173,349.35	-3.8%
2020	180,552.05	4.2%
2021	188,963.10	4.7%
2022	204,878.98	8.4%
2023	445,929.33	117.7%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	666,687.22	666,687.22
Cash	111.97	111.97
Total Cash and Equivalents	666,799.19	666,799.19
Receivables:		
Member Contributions in Transit	2,856.76	2,856.76
City Contributions in Transit	96,153.85	96,153.85
State Contributions	157,089.18	157,089.18
Investment Income	39,260.24	39,260.24
Total Receivable	295,360.03	295,360.03
Investments:		
U. S. Bonds and Bills	2,537,151.36	2,400,866.75
Federal Agency Guaranteed Securities	4,089,399.04	3,737,373.56
Corporate Bonds	586,495.38	489,616.00
Stocks	6,148,322.50	6,332,111.14
Mutual Funds:		
Fixed Income	1,379,972.34	1,174,824.66
Equity	9,937,485.43	13,119,769.37
Pooled/Common/Commingled Funds:		
Real Estate	2,924,517.88	3,283,553.32
Total Investments	27,603,343.93	30,538,114.80
Total Assets	28,565,503.15	31,500,274.02
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	23,125.28	23,125.28
Administrative Expenses	2,737.52	2,737.52
Total Liabilities	25,862.80	25,862.80
NET POSITION RESTRICTED FOR PENSIONS	28,539,640.35	31,474,411.22

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

ADDITIONS

Contributions:			
Member		79,848.81	
Buy-Back		14,167.00	
City		2,492,307.78	
State		445,929.33	
Total Contributions			3,032,252.92
Investment Income:			
Net Realized Gain (Loss)	(77,385.22)		
Unrealized Gain (Loss)	2,134,777.37		
Net Increase in Fair Value of Investments		2,057,392.15	
Interest & Dividends		852,491.70	
Less Investment Expense ¹		(131,521.57)	
Net Investment Income			2,778,362.28
Total Additions			5,810,615.20
<u>DEDUCTIONS</u>			
Distributions to Members:			
Benefit Payments		2,830,814.01	
Lump Sum Share Distributions		987.79	
Lump Sum PLOP Distributions		155,936.48	
Refunds of Member Contributions		0.00	
Total Distributions			2,987,738.28
Administrative Expense			69,300.58
Total Deductions			3,057,038.86
Net Increase in Net Position			2,753,576.34
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			28,720,834.88
End of the Year			31,474,411.22

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 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 ¹	
09/30/2020	6.92%	
09/30/2021	19.86%	
09/30/2022	-14.09%	
09/30/2023	9.78%	
Annualized Rate of Return for prior four (4) years:		4.85%
(A) 10/01/2022 Actuarial Assets:		\$32,325,635.24
(I) Net Investment Income:		
1. Interest and Dividends	852,491.70	
2. Realized Gain (Loss)	(77,385.22)	
3. Unrealized Gain (Loss)	2,134,777.37	
4. Change in Actuarial Value	(1,210,654.56)	
5. Investment Related Expenses	(131,521.57)	
Total		1,567,707.72
(B) 10/01/2023 Actuarial Assets:		\$33,868,557.02
Actuarial Asset Rate of Return = $2I/(A+B-I)$, based on Unlimited Actuarial Assets:		4.85%
10/01/2023 Limited Actuarial Assets		\$33,868,557.02
10/01/2023 Market Value of Assets		\$31,474,411.22
Actuarial Asset Rate of Return, based on Limited Actuarial Assets:		4.85%
Actuarial Gain/(Loss) due to Investment Return (Limited Actuarial Asset Basis)		(\$533,343.86)

¹Market Value Basis, net of investment related expenses.

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

REVENUES

Contributions:		
Member	79,848.81	
Buy-Back	14,167.00	
City	2,492,307.78	
State	445,929.33	
Total Contributions		3,032,252.92
Earnings from Investments:		
Interest & Dividends	852,491.70	
Net Realized Gain (Loss)	(77,385.22)	
Unrealized Gain (Loss)	2,134,777.37	
Change in Actuarial Value	(1,210,654.56)	
Total Earnings and Investment Gains		1,699,229.29

EXPENDITURES

Distributions to Members:		
Benefit Payments	2,830,814.01	
Lump Sum Share Distributions	987.79	
Lump Sum PLOP Distributions	155,936.48	
Refunds of Member Contributions	0.00	
Total Distributions		2,987,738.28
Expenses:		
Investment related ¹	131,521.57	
Administrative	69,300.58	
Total Expenses		200,822.15
Change in Net Assets for the Year		1,542,921.78
Net Assets Beginning of the Year		32,325,635.24
Net Assets End of the Year²		33,868,557.02

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

²Net Assets may be limited for actuarial consideration.

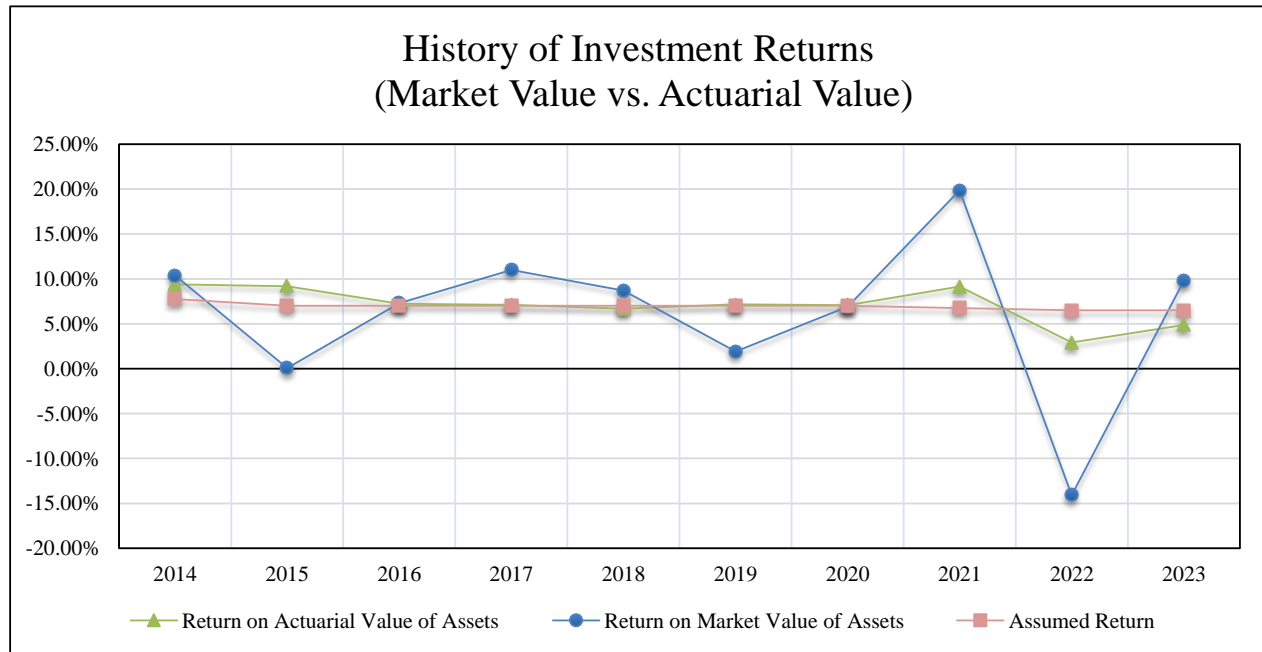
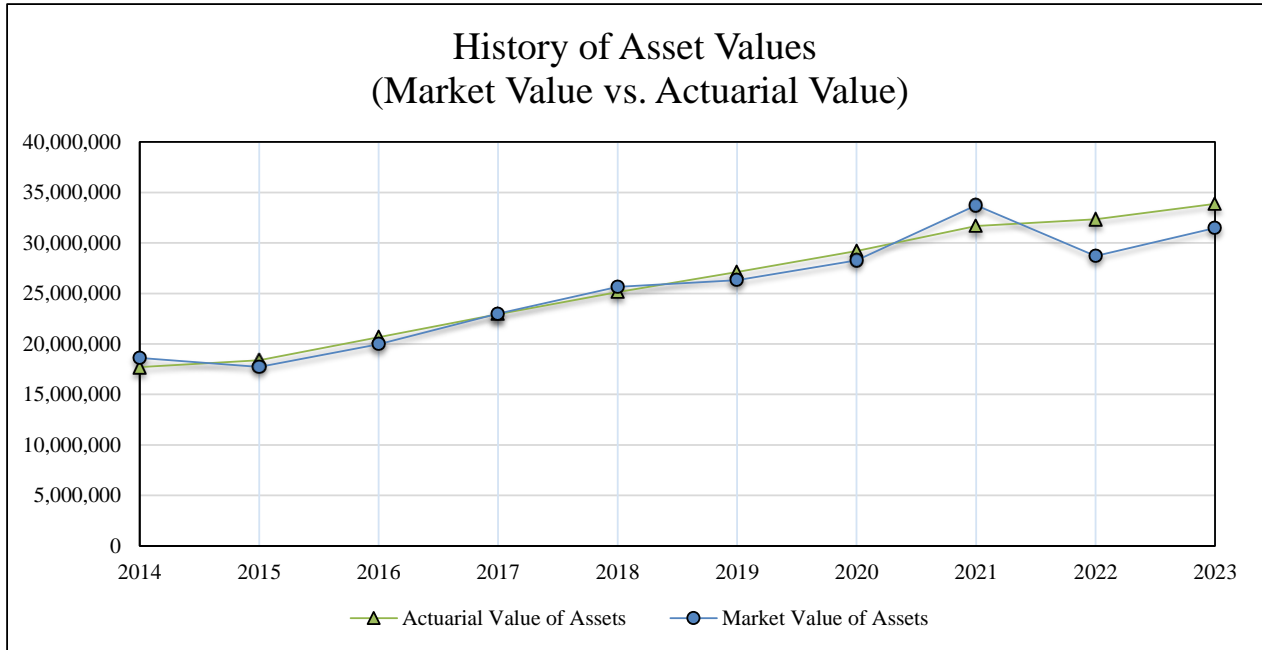
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2022 through September 30, 2023

9/30/2022 Balance	4,185.97
Prior Year Adjustment	(0.66)
Plus Additions	74,964.67
Investment Return Earned (Est.)	313.00
Administrative Fees (Est.)	(3.90)
Less Distributions	<u>(987.79)</u>
9/30/2023 Balance (Est.)	78,471.29

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

(1) Required City and State Contributions	\$2,481,007.00
(2) Less Allowable State Contribution	<u>(370,964.66)</u>
(3) Required City Contribution for Fiscal 2023	2,110,042.34
(4) Less 2022 Prepaid Contribution	0.00
(5) Less Actual City Contributions	<u>(2,492,307.78)</u>
(6) City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2023	(\$382,265.44)

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	12	14	19	21
Average Current Age	49.2	48.5	47.6	47.1
Average Age at Employment	28.1	28.0	28.0	28.2
Average Past Service	21.1	20.5	19.6	18.9
Average Annual Salary	\$96,060	\$92,396	\$87,224	\$87,435
<u>Service Retirees</u>				
Number	39	37	32	30
Average Current Age	63.1	63.0	64.7	64.5
Average Annual Benefit	\$65,649	\$67,200	\$68,699	\$67,988
<u>Beneficiaries</u>				
Number	9	8	8	9
Average Current Age	80.2	81.3	81.1	80.0
Average Annual Benefit	\$26,354	\$24,395	\$24,058	\$22,149
<u>Disability Retirees</u>				
Number	4	4	4	4
Average Current Age	62.8	61.8	60.8	59.8
Average Annual Benefit	\$18,913	\$18,913	\$18,913	\$18,913
<u>Terminated Vested</u>				
Number	13	14	15	15
Average Current Age	41.7	42.0	42.6	41.6
Average Annual Benefit	\$17,920	\$17,322	\$19,761	\$19,761

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												0
25 - 29												0
30 - 34												0
35 - 39							1					1
40 - 44								2				2
45 - 49									2			2
50 - 54								1	2	1		4
55 - 59									3			3
60 - 64												0
65+												0
Total	0	0	0	0	0	0	1	3	7	1	0	12

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	14
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. Continuing participants	12
g. New entrants / Rehires	0
h. Total active life participants in valuation	12

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

	Service Retirees, Vested Receiving <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	37	8	4	14	0	63
Retired	3	0	0	(1)	0	2
Vested (Deferred Annuity)	0	0	0	0	0	0
Vested (Due Refund)	0	0	0	0	0	0
Hired/Terminated in Same Year	0	0	0	0	0	0
Death, With Survivor	(1)	1	0	0	0	0
Death, No Survivor	0	0	0	0	0	0
Disabled	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0
b. Number current valuation	39	9	4	13	0	65

SUMMARY OF CURRENT PLAN
(Ordinance 2023-21)

<u>Original Effective Date</u>	October 1, 1961
<u>Latest Amendment</u>	June 27, 2023
<u>Eligibility</u>	Full-time employment with the City as a Firefighter. The Plan is closed to Firefighters hired after September 30, 2014.
<u>Credited Service</u>	Total number of years and fractional parts of years of service with the City as a Firefighter.
<u>Average Final Compensation</u>	Average W-2 Salary (plus tax deferred and tax sheltered income) during the 5 highest years of the last 10 for Members eligible for Normal Retirement as of October 1, 2014. Salary for all other Members shall be base pay applicable for service after October 1, 2014. Notwithstanding the foregoing, effective October 1, 2014, sick or vacation time which is accrued, but for which a member has not been paid prior to October 1, 2014, shall not be considered in determining the value of any future retirement benefit, including the calculation of any frozen benefit.

Normal Retirement

Eligibility	Earlier of age 55 and 10 years of Credited Service, or 25 years of Credited Service.
Benefit Amount	3.50% of Average Final Compensation times Years of Credited Service, plus \$175 per month, for Members eligible for Normal Retirement as of October 1, 2014. The benefit accrual rate is 2.75% for Credited Service on and after October 1, 2014 for Members not eligible for Normal Retirement as of that date.
Form of Benefit	10 Years Certain and Life thereafter. Optional forms are available.

Early Retirement

Eligibility	Earlier of age 50 and 10 years of Credited Service, or the completion of 20 years of Credited Service regardless of age for Members with 10 or more years of Credited Service as of October 1, 2014. Early Retirement is not available for Members with less than 10 years of Credited Service as of that date.
Benefit	Deferred benefit payable at Normal Retirement Date or reduced 2% per year and payable immediately.

Disability

Eligibility	Total and Permanent as determined by the Board. Members are covered from date of employment for service-incurred disabilities and after five (5) years of service for non-service disabilities.
Benefit Amount	Greater of 2% times Average Final Compensation times Credited Service, or 50% of Average Final Compensation. Benefits are payable as a 100% Joint and Survivor Annuity to spouse or children. Optional forms are available.

Pre-Retirement Death

Eligibility	Coverage in effect from date of employment for service incurred deaths and after five (5) years of service for non-service incurred.
Benefit	50% of Average Final Compensation paid to spouse until death, if service incurred, or until death or remarriage, if non-service incurred.
Minimum Benefit for Vested Members	Accrued benefit, less any spouse or surviving children benefits payable.

Cost of Living Adjustment

Normal and Early service retirees who retire after October 1, 1998 receive a 3.0% increase each year after retirement through age 65. For Members not eligible for Normal Retirement as of October 1, 2014, no cost-of-living adjustments are applicable to benefits based on Credited Service after that date.

Vesting (Termination)

Less than 10 years of Contributing Service	Refund of Member Contributions.
10 years or more	Accrued benefit payable at Early Retirement Age or later if Member contributions left in Fund; otherwise, Refund of Member Contributions. Additionally, members are 100% vested for benefits accrued prior to October 1, 2014, regardless of accrued service as of that date.

Contributions

Employee	7.00% of Salary.
State	Premium tax refund.
City	Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided in Part VII of Florida Statutes Chapter 112.

Board of Trustees

Two City Council appointees who are City residents, two elected Members of the Fire Department, and a fifth Member elected by the other four and appointed by Council (as a ministerial duty).

Share Plan

Funded using half the excess State Monies Reserve as of September 30, 2018, in addition to 50% of annual State Monies in excess of \$296,000.