VILLAGE OF NORTH PALM BEACH
FIRE AND POLICE RETIREMENT FUND

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2025

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

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February 9, 2024

Board of Trustees
Village of North Palm Beach
Firefighters and Police Officers' Pension Board

Re: Village of North Palm Beach Fire and Police Retirement Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Village of North Palm Beach Fire and Police 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, 175, and 185, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

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In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Village of North Palm Beach, 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 Village of North Palm Beach, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Fire and Police 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: ______________________________

Sara E. Carlson, ASA, EA, MAAA
Enrolled Actuary #23-8546

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the Village of North Palm Beach Fire and Police 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, 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	9/30/2025	9/30/2024
Minimum Required Contribution		
% of Projected Annual Payroll	35.67%	31.84%
Member Contributions (Est.)		
% of Projected Annual Payroll	9.42%	9.25%
Village And State Required Contribution		
% of Projected Annual Payroll	**26.25%**	**22.59%**
State Contribution (Est.) [1]	$472,893	$472,893
% of Projected Annual Payroll (Est.)	7.26%	7.26%
Village Required Contribution (Est.) [2]		
% of Projected Annual Payroll (Est.)	18.99%	15.33%

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

[2] The required contribution from the combination of Village and State sources for the year ending September 30, 2025, is 26.25% of the actual payroll realized in that year. As a budgeting tool, the Village may contribute 18.99% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received. Please note that the Village has access to a prepaid contribution of $73,933.62 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2024.

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 unfavorable actuarial experience, as described below.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 3.61% (Actuarial Asset Basis) which fell short of the 7.45% assumption, an average salary increase of 11.25% which exceeded the 5.31% assumption, and more retirements than expected. 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.

CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1)	Contribution Determined as of October 1, 2022	15.69%
(2)	Summary of Contribution Impact by component:	
	Change in State Contribution Percentage	-0.36%
	Change in Normal Cost Rate	-0.26%
	Change in Member Contribution Rate	-0.17%
	Change in Administrative Expense Percentage	-0.03%
	Payroll Change Effect on UAAL Amortization	-0.58%
	Investment Return (Actuarial Asset Basis)	2.25%
	Salary Increases	1.72%
	Active Decrements	0.59%
	Inactive Mortality	0.28%
	COLA Rate Different than Expected	0.13%
	UAAL Amortization Impact from Contribution Policy	0.01%
	Assumption Change	0.00%
	Other	-0.28%
	Total Change in Contribution	3.30%
(3)	Contribution Determined as of October 1, 2023	18.99%

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	10/1/2023	10/1/2022
A. Participant Data		
Actives	52	52
Service Retirees	26	25
DROP Retirees	4	4
Beneficiaries	3	3
Disability Retirees	1	1
Terminated Vested	23	20
Total	109	105
Projected Annual Payroll	6,510,165	6,010,481
Annual Rate of Payments to:		
Service Retirees	915,098	831,630
DROP Retirees	367,163	301,111
Beneficiaries	80,241	77,904
Disability Retirees	41,684	40,470
Terminated Vested	123,451	123,451
B. Assets		
Actuarial Value (AVA) [1]	36,375,959	34,557,211
Market Value (MVA) [1]	33,918,868	30,067,826
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	33,945,494	30,970,878
Disability Benefits	3,430,398	3,365,010
Death Benefits	334,180	308,869
Vested Benefits	173,901	171,293
Refund of Contributions	146,176	136,871
Service Retirees	11,311,393	10,485,168
DROP Retirees [1]	5,843,335	4,711,859
Beneficiaries	955,668	948,753
Disability Retirees	438,346	455,852
Terminated Vested	1,391,334	1,283,552
Share Plan Balances [1]	0	0
Total	57,970,225	52,838,105

C. Liabilities - (Continued)	10/1/2023	10/1/2022
Present Value of Future Salaries	68,424,675	64,537,579
Present Value of Future Member Contributions	6,445,604	5,926,588
Normal Cost (Retirement)	1,183,417	1,096,397
Normal Cost (Disability)	178,989	175,389
Normal Cost (Death)	13,484	12,488
Normal Cost (Vesting)	13,779	13,731
Normal Cost (Refunds)	20,890	18,980
Total Normal Cost	1,410,559	1,316,985
Present Value of Future Normal Costs	14,391,573	13,750,225
Accrued Liability (Retirement)	21,755,063	19,423,497
Accrued Liability (Disability)	1,567,123	1,490,587
Accrued Liability (Death)	204,097	184,834
Accrued Liability (Vesting)	82,363	78,848
Accrued Liability (Refunds)	29,930	24,930
Accrued Liability (Inactives) [1]	19,940,076	17,885,184
Share Plan Balances [1]	0	0
Total Actuarial Accrued Liability (EAN AL)	43,578,652	39,087,880
Unfunded Actuarial Accrued Liability (UAAL)	7,202,693	4,530,669
Funded Ratio (AVA / EAN AL)	83.5%	88.4%

D. Actuarial Present Value of Accrued Benefits	10/1/2023	10/1/2022
Vested Accrued Benefits		
Inactives + Share Plan Balances [1]	19,940,076	17,885,184
Actives	11,389,893	10,538,743
Member Contributions	2,402,620	2,032,932
Total	33,732,589	30,456,859
Non-vested Accrued Benefits	717,101	666,953
Total Present Value Accrued Benefits (PVAB)	34,449,690	31,123,812
Funded Ratio (MVA / PVAB)	98.5%	96.6%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	2,239,053	
Benefits Paid	(1,187,659)	
Interest	2,274,484	
Other	0	
Total	3,325,878	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	9/30/2025	9/30/2024
E. Pension Cost		
Normal Cost (with interest)		
% of Projected Annual Payroll [2]	22.47	22.73
Administrative Expenses (with interest)		
% of Projected Annual Payroll [2]	1.50	1.53
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 27 years (as of 10/1/2023, with interest)		
% of Projected Annual Payroll [2]	11.70	7.58
Minimum Required Contribution		
% of Projected Annual Payroll [2]	35.67	31.84
Expected Member Contributions		
% of Projected Annual Payroll [2]	9.42	9.25
Expected Village and State Contribution		
% of Projected Annual Payroll [2]	26.25	22.59
F. Past Contributions		
Plan Years Ending:	9/30/2023	
Village and State Requirement	1,317,009	
Actual Contributions Made:		
Members (excluding buyback)	511,862	
Village	844,115	
State	472,893	
Total	1,828,870	
G. Net Actuarial (Gain)/Loss	2,798,608	

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

[2] Contributions developed as of 10/1/2023 are expressed as a percentage of Projected Annual Payroll at 10/1/2023 of $6,510,165.

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

Year	Projected Unfunded Actuarial Accrued Liability
2023	7,202,693
2024	6,950,274
2025	6,679,051
2031	4,617,123
2038	823,841
2044	476,681
2050	0

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

		Actual	Assumed
Year Ended	9/30/2023	11.25%	5.31%
Year Ended	9/30/2022	9.97%	5.39%
Year Ended	9/30/2021	7.18%	5.34%
Year Ended	9/30/2020	5.33%	5.36%
Year Ended	9/30/2019	10.82%	5.42%

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

		Market Value	Actuarial Value	Assumed
Year Ended	9/30/2023	10.92%	3.61%	7.45%
Year Ended	9/30/2022	-14.09%	4.07%	7.45%
Year Ended	9/30/2021	19.69%	8.59%	7.70%
Year Ended	9/30/2020	4.62%	6.37%	7.70%
Year Ended	9/30/2019	3.13%	6.22%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	$6,510,165
	10/1/2013	3,924,428
(b) Total Increase		65.89%
(c) Number of Years		10.00
(d) Average Annual Rate		5.19%

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.

Sara Carlson

Sara E. Carlson, ASA, EA, MAAA
Enrolled Actuary #23-8546

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	$4,530,669
(2)	Sponsor Normal Cost developed as of October 1, 2022	761,016
(3)	Expected administrative expenses for the year ended September 30, 2023	88,902
(4)	Expected interest on (1), (2) and (3)	397,542
(5)	Sponsor contributions to the System during the year ended September 30, 2023 [1]	1,338,364
(6)	Expected interest on (5)	35,680
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	4,404,085
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	2,798,608
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2023	7,202,693

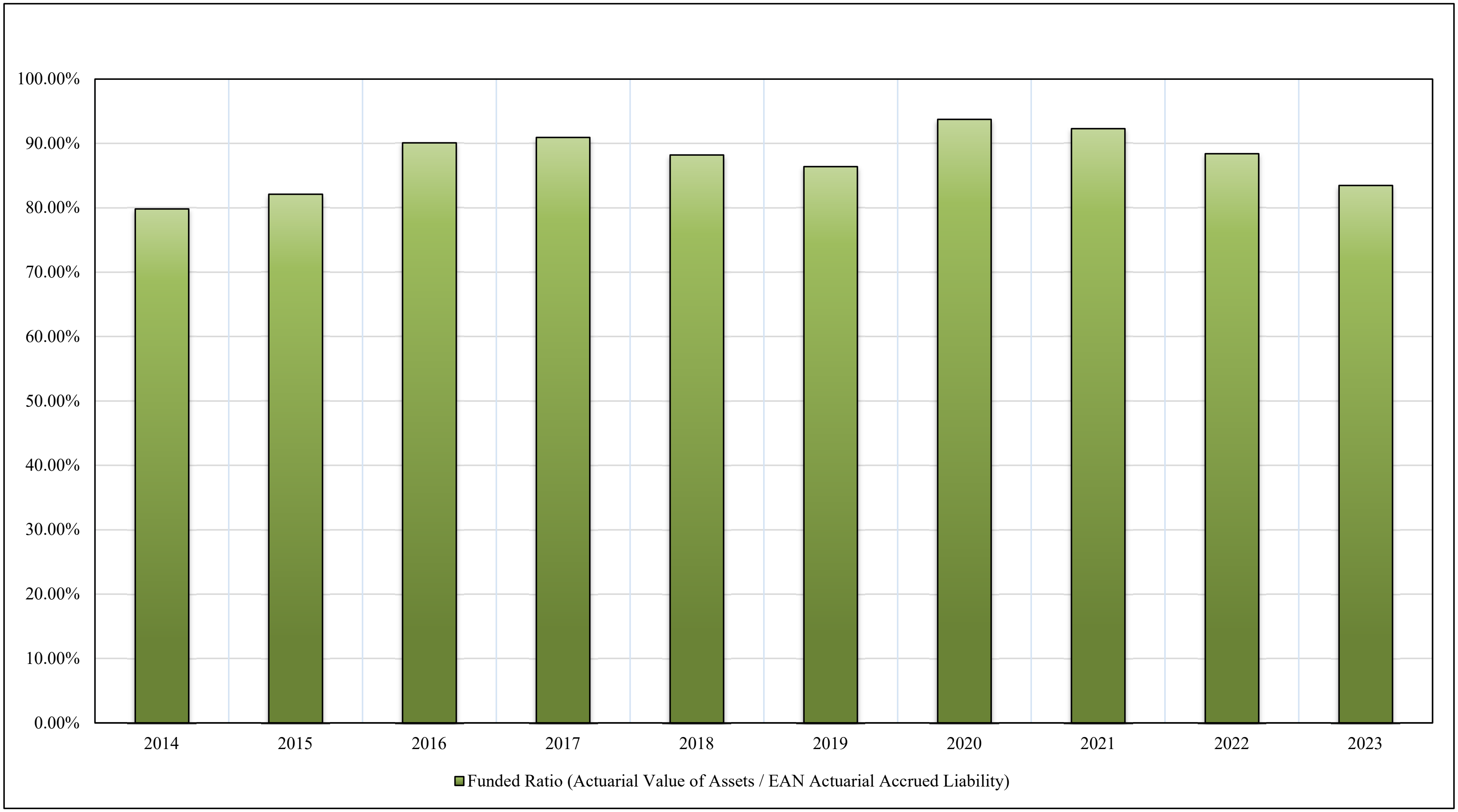
Type of Base	Date Established	Years Remaining	10/1/2023 Amount	Amortization Amount
EAN Cost Method	10/1/2016	13	1,383,040	157,960
Actuarial Loss	10/1/2017	4	47,897	13,294
Assump Change	10/1/2017	14	135,371	14,797
Assump Change	10/1/2018	15	133,983	14,082
Actuarial Gain	10/1/2018	5	(42,432)	(9,748)
Excess Reserve Credit	10/1/2018	15	(458,531)	(48,194)
Benefits Change	10/1/2018	25	1,371,564	114,011
Actuarial Loss	10/1/2019	6	448,744	88,838
Assump Change	10/1/2019	16	166,040	16,849
Actuarial Gain	10/1/2020	7	(963,007)	(168,918)
Assump Change	10/1/2020	17	(761,555)	(74,873)
Benefits Change	10/1/2020	27	161,137	13,047
Actuarial Loss	10/1/2021	13	62,097	7,092
Assump Change	10/1/2021	13	590,954	67,494
Benefits Change	10/1/2021	13	355,473	40,599
Actuarial Loss	10/1/2022	14	1,773,310	193,835
Actuarial Loss	10/1/2023	15	2,798,608	294,149
			7,202,693	734,314

[1] Includes $21,355.82 in Member Contributions for those participating in DROP.

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	$4,530,669
(2)	Expected UAAL as of October 1, 2023	4,404,085
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	1,340,927
	Salary Increases	1,024,156
	Active Decrements	353,051
	Inactive Mortality	169,400
	COLA Rate Different than Expected	77,017
	Other	(165,943)
	Increase in UAAL due to (Gain)/Loss	2,798,608
	Assumption Changes	0
(4)	Actual UAAL as of October 1, 2023	$7,202,693

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

Beneficiary Lives:

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

7.45% 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
< 5	8.0%
5 – 9	6.5%
10 – 14	5.0%
15+	4.0%

The rates above are based on the August 6, 2021 Experience Study.

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

$93,969 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over 15 years.

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

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

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 7.45% assumption.

Salary - None.

Normal Retirement Rates

% Retiring During the Year (25+ Years of Service)	
Years after First Eligibility for Normal Retirement	Rate
0	20%
1	20%
2	10%
3	10%
4	50%
5+	100%

% Retiring During the Year (<25 Years of Service)	
Age	Rate
55	40%
56	20%
57	20%
58	10%
59	10%
60+	100%

The rates above are based on the results of an Experience Study dated August 6, 2021.

Early Retirement Rates

The assumed rate of retirement is 5.0% for each year of eligibility for early retirement. This assumption was reviewed as part of an Experience Study dated August 6, 2021.

Termination Rate

% Terminating During the Year	
Service	Rate
<5	6.0%
5 – 9	3.0%
10 – 14	1.0%
15+	0.0%

The rates above are based on results of the August 6, 2021 Experience Study.

Disability Rate

See sample rates below. It is assumed that 75% of Police Officer disablements are service related and 90% of Firefighter disablements are service related. This assumption was reviewed as part of an Experience Study dated August 6, 2021.

% Becoming Disabled During the Year	
Age	Rate
20	0.14%
30	0.18%
40	0.30%
50	1.00%
60+	2.09%

Post Retirement COLA

2.50% per year, based on our long-term inflation assumption.

Actuarial Asset Method

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

Low-Default-Risk Obligation Measure

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

GLOSSARY

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

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.

- <u>Investment Return</u>: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.

- <u>Salary Increases</u>: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.

- <u>Demographic Assumptions:</u> 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 226.1% on October 1, 2013 to 140.5% 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 45.8%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in lower volatility in contribution requirements when compared to a more 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 79.3% on October 1, 2013 to 83.5% 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 3.9% on October 1, 2013 to 1.7% on October 1, 2023. The current Net Cash Flow Ratio of 1.7% indicates that contributions are generally 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 $62,755,478. The LDROM should not be considered the "correct" liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. The Board actually invests the pension plan's contributions in a diversified portfolio of stocks and bonds and other investments with the objective of maximizing investment returns at a reasonable level of risk. Consequently, the difference between the plan's Actuarial Accrued Liability disclosed earlier in this section and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan's diversified portfolio compared to investing only in high quality bonds.

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

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

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	10/1/2023	10/1/2022	10/1/2018	10/1/2013
Support Ratio				
Total Actives	52	52	55	52
Total Inactives [1]	37	36	29	23
Actives / Inactives [1]	140.5%	144.4%	189.7%	226.1%
Asset Volatility Ratio				
Market Value of Assets (MVA)	33,918,868	30,067,826	25,015,306	14,499,921
Total Annual Payroll	6,510,165	6,010,481	5,338,747	4,094,752
MVA / Total Annual Payroll	521.0%	500.3%	468.6%	354.1%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	19,940,076	17,885,184	10,080,425	6,817,090
Total Accrued Liability (EAN)	43,578,652	39,087,880	28,359,101	17,684,547
Inactive AL / Total AL	45.8%	45.8%	35.5%	38.5%
Funded Ratio				
Actuarial Value of Assets (AVA)	36,375,959	34,557,211	25,016,369	14,030,480
Total Accrued Liability (EAN)	43,578,652	39,087,880	28,359,101	17,684,547
AVA / Total Accrued Liability (EAN)	83.5%	88.4%	88.2%	79.3%
Net Cash Flow Ratio				
Net Cash Flow [2]	561,210	463,724	524,514	560,753
Market Value of Assets (MVA)	33,918,868	30,067,826	25,015,306	14,499,921
Ratio	1.7%	1.5%	2.1%	3.9%

[1] Excludes terminated participants awaiting a refund of member contributions.

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

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During Fiscal Year	Amount	Increase from Previous Year
1998	92,462.12	_____%
1999	80,911.74	-12.5%
2000	78,246.11	-3.3%
2001	108,200.87	38.3%
2002	134,408.43	24.2%
2003	159,943.14	19.0%
2004	203,317.14	27.1%
2005	209,222.36	2.9%
2006	233,640.77	11.7%
2007	325,961.92	39.5%
2008	321,142.12	-1.5%
2009	221,372.40	-31.1%
2010	254,590.16	15.0%
2011	264,570.27	3.9%
2012	296,910.60	12.2%
2013	307,380.23	3.5%
2014	321,229.85	4.5%
2015	298,340.47	-7.1%
2016	310,199.86	4.0%
2017	309,138.26	-0.3%
2018	308,599.58	-0.2%
2019	328,826.15	6.6%
2020	339,509.41	3.2%
2021	350,749.46	3.3%
2022	414,511.73	18.2%
2023	472,893.33	14.1%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

ASSETS	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	370,419.70	370,419.70
Checking Account	469,642.97	469,642.97
Prepaid Expenses	1,984.92	1,984.92
Cash	1,983.46	1,983.46
Total Cash and Equivalents	844,031.05	844,031.05
Receivables:		
State Contributions	67,197.63	67,197.63
Investment Income	46,900.41	46,900.41
Total Receivable	114,098.04	114,098.04
Investments:		
U. S. Bonds and Bills	1,500,603.38	1,369,444.28
Federal Agency Guaranteed Securities	4,665,652.54	4,205,979.29
Corporate Bonds	2,882,197.37	2,448,100.49
Municipal Obligations	439,382.34	353,805.34
Stocks	7,727,238.33	9,834,819.51
Mutual Funds:		
Equity	9,248,983.87	11,557,989.85
Pooled/Common/Commingled Funds:		
Real Estate	2,720,065.92	3,285,077.96
Total Investments	29,184,123.75	33,055,216.72
Total Assets	30,142,252.84	34,013,345.81
LIABILITIES		
Payables:		
Investment Expenses	20,544.19	20,544.19
Prepaid Village Contribution	73,933.62	73,933.62
Total Liabilities	94,477.81	94,477.81
NET POSITION RESTRICTED FOR PENSIONS	30,047,775.03	33,918,868.00

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

<u>ADDITIONS</u>			
Contributions:			
Member		511,862.43	
Buy-Back		2,421.72	
Village		844,115.33	
Village for Members		21,355.82	
State		472,893.33	
Total Contributions			1,852,648.63
Investment Income:			
Net Realized Gain (Loss)	194,066.23		
Unrealized Gain (Loss)	2,478,957.36		
Net Increase in Fair Value of Investments		2,673,023.59	
Interest & Dividends		761,508.47	
Less Investment Expense[1]		(144,699.73)	
Net Investment Income			3,289,832.33
Total Additions			5,142,480.96
<u>DEDUCTIONS</u>			
Distributions to Members:			
Benefit Payments		992,614.68	
Lump Sum DROP Distributions		187,531.59	
Refunds of Member Contributions		7,512.73	
Total Distributions			1,187,659.00
Administrative Expense			103,780.45
Total Deductions			1,291,439.45
Net Increase in Net Position			3,851,041.51
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			30,067,826.49
End of the Year			33,918,868.00

[1]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 recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Gains/Losses Not Yet Recognized

Plan Year Ending	Gain/(Loss)	Amounts Not Yet Recognized by Valuation Year 2023	2024	2025	2026	2027
09/30/2019	(1,176,256)	0	0	0	0	0
09/30/2020	(831,474)	(166,294)	0	0	0	0
09/30/2021	3,405,980	1,362,392	681,196	0	0	0
09/30/2022	(7,456,415)	(4,473,849)	(2,982,566)	(1,491,283)	0	0
09/30/2023	1,025,825	820,660	615,495	410,330	205,165	0
Total		(2,457,091)	(1,685,875)	(1,080,953)	205,165	0

Development of Investment Gain/Loss

Market Value of Assets, including Prepaid Contributions, 09/30/2022	30,075,729
Contributions Less Benefit Payments & Admin Expenses	627,240
Expected Investment Earnings*	2,264,007
Actual Net Investment Earnings	3,289,832
2023 Actuarial Investment Gain/(Loss)	1,025,825

*Expected Investment Earnings = 0.0745 * (30,075,729 + 0.5 * 627,240)

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2023	33,918,868
(2) Gains/(Losses) Not Yet Recognized	(2,457,091)
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	36,375,959
(4) Limited Actuarial Value of Assets, 09/30/2023	36,375,959
(A) 09/30/2022 Actuarial Assets, including Prepaid Contributions:	34,565,114
(I) Net Investment Income:	
1. Interest and Dividends	761,508
2. Realized Gain (Loss)	194,066
3. Unrealized Gain (Loss)	2,478,957
4. Change in Actuarial Value	(2,032,294)
5. Investment Expenses	(144,700)
Total	1,257,538
(B) 09/30/2023 Actuarial Assets, including Prepaid Contributions:	36,449,893
Actuarial Assets Rate of Return = 2I/(A+B-I):	3.61%
Market Value of Assets Rate of Return:	10.92%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(1,340,927)

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

REVENUES		
Contributions:		
Member	511,862.43	
Buy-Back	2,421.72	
Village	844,115.33	
Village for Members	21,355.82	
State	472,893.33	
Total Contributions		1,852,648.63
Earnings from Investments:		
Interest & Dividends	761,508.47	
Net Realized Gain (Loss)	194,066.23	
Unrealized Gain (Loss)	2,478,957.36	
Change in Actuarial Value	(2,032,294.00)	
Total Earnings and Investment Gains		1,402,238.06
EXPENDITURES		
Distributions to Members:		
Benefit Payments	992,614.68	
Lump Sum DROP Distributions	187,531.59	
Refunds of Member Contributions	7,512.73	
Total Distributions		1,187,659.00
Expenses:		
Investment related[1]	144,699.73	
Administrative	103,780.45	
Total Expenses		248,480.18
Change in Net Assets for the Year		1,818,747.51
Net Assets Beginning of the Year		34,557,211.49
Net Assets End of the Year[2]		36,375,959.00

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

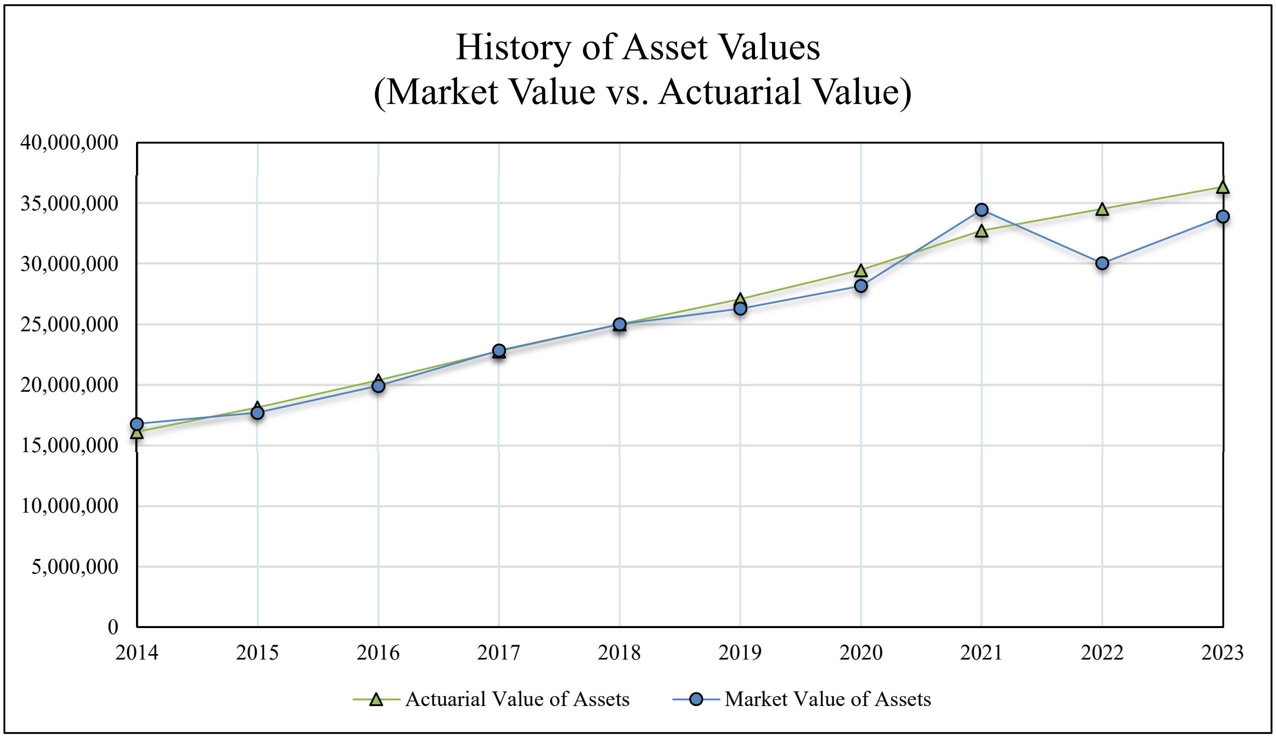
DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2022 to September 30, 2023

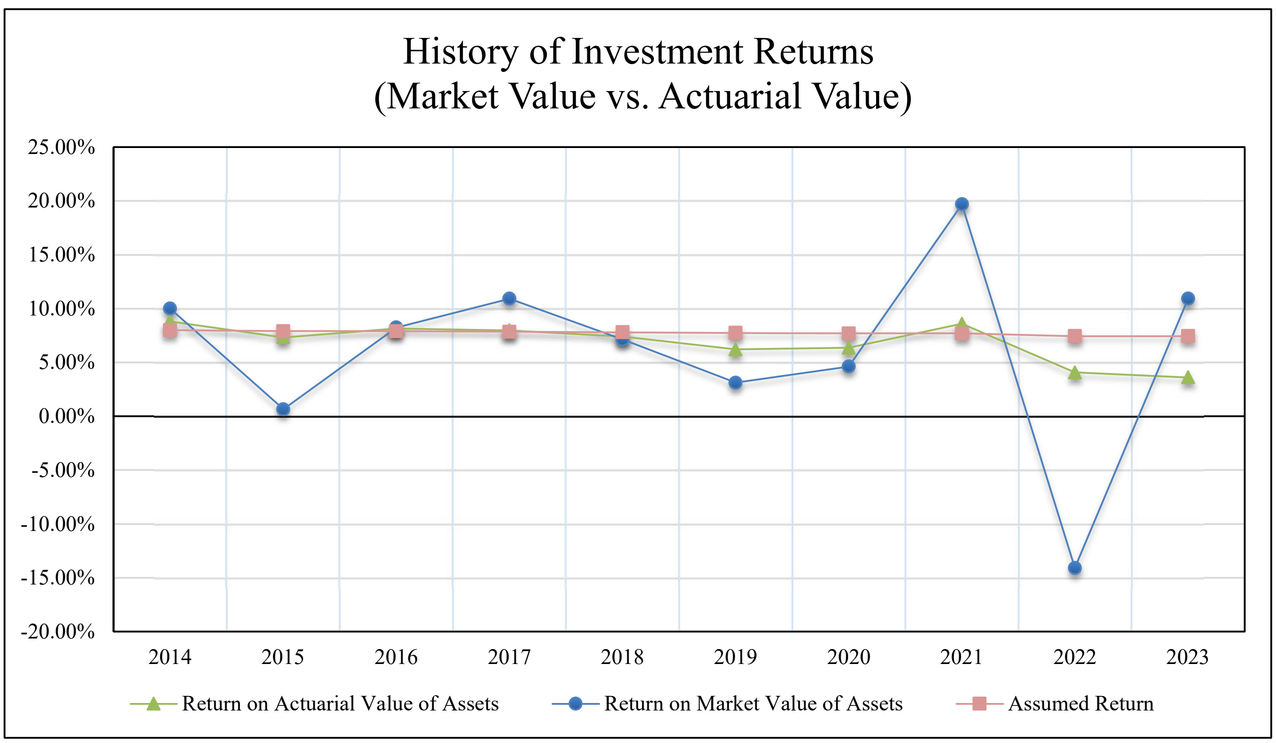
Beginning of the Year Balance	852,332.37
Plus Additions	293,212.52
Investment Return Earned	42,214.32
Less Distributions	(187,531.59)
End of the Year Balance	1,000,227.62

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

(1)	Village Required Contribution Rate	20.79%
(2)	Pensionable Payroll	$6,334,817.97
(3)	Village Required Contribution (1) x (2)	1,317,008.66
(4)	Less Allowable State Contribution	(472,893.33)
(5)	Equals Required Village Contribution for Fiscal 2023	844,115.33
(6)	Less 2022 Prepaid Contribution	(7,902.90)
(7)	Less Actual Village Contributions	(910,146.05)
(8)	Equals Village's Shortfall/(Prepaid) Contribution as of September 30, 2023	($73,933.62)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2023	10/1/2022	10/1/2021	10/1/2020
Actives				
Number	52	52	51	51
Average Current Age	40.3	40.0	38.9	40.3
Average Age at Employment	28.6	28.7	28.3	29.1
Average Past Service	11.7	11.3	10.6	11.2
Average Annual Salary	$125,195	$115,586	$105,909	$104,111
Service Retirees				
Number	26	25	25	23
Average Current Age	67.2	66.4	65.4	65.4
Average Annual Benefit	$35,196	$33,265	$32,675	$28,108
DROP Retirees				
Number	4	4	4	4
Average Current Age	59.6	60.3	59.3	58.3
Average Annual Benefit	$91,791	$75,278	$73,085	$71,219
Beneficiaries				
Number	3	3	3	3
Average Current Age	70.0	69.0	68.0	67.0
Average Annual Benefit	$26,747	$25,968	$25,212	$24,568
Disability Retirees				
Number	1	1	1	1
Average Current Age	61.5	60.5	59.5	58.5
Average Annual Benefit	$41,684	$40,470	$39,291	$38,288
Terminated Vested				
Number	23	20	16	15
Average Current Age [1]	48.7	47.7	46.7	46.0
Average Annual Benefit [1]	$41,150	$41,150	$41,150	$30,242

[1] The Average Current Age and Average Annual Benefit exclude participants awaiting a refund of contributions.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	1											1
25 - 29	1		2		4							7
30 - 34	2	1	1			1						5
35 - 39				1		2	6	2				11
40 - 44		1				3	2	7				13
45 - 49					1	1		1	1			4
50 - 54							1	3	2	2		8
55 - 59								2	1			3
60 - 64												0
65+												0
Total	4	2	3	1	5	7	9	15	4	2	0	52

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	52
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	(2)
iii. Refund of member contributions or full lump sum distribution	(1)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	(1)
g. Continuing participants	48
h. New entrants / Rehires	4
i. Total active life participants in valuation	52

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

	Service Retirees, Vested Receiving Benefits	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	Total
a. Number prior valuation	25	4	3	1	3	17	53
Retired	1	(1)					0
DROP		1					1
Vested (Deferred Annuity)							0
Vested (Due Refund)						2	2
Hired/Terminated in Same Year						2	2
Death, With Survivor							0
Death, No Survivor							0
Disabled							0
Refund of Contributions						(1)	(1)
Rehires							0
Expired Annuities							0
Data Corrections							0
b. Number current valuation	26	4	3	1	3	20	57

SUMMARY OF CURRENT PLAN
(Through Ordinance No. 2022-17)

Eligibility	Full-time employees who are classified as Police Officers or Firefighters participate as a condition of employment.
Credited Service	Total years and fractional parts of years of employment with the Village as a Police Officer or Firefighter.
Salary	*Police Officers:* Gross Compensation, excluding bonuses, sick and vacation pay, but including overtime. *Firefighters:* Gross Compensation, excluding bonuses, sick and vacation pay, but including overtime pay up to 200 hours per fiscal year.
Average Monthly Earnings	Average Salary for the 5 best years of the 10 years immediately preceding retirement or termination.
Member Contributions	*Police Officers:* • Effective the first full payroll period after October 1, 2022, 8.50% of Salary. • Effective the first full payroll period after October 1, 2023, 10.00% of Salary. *Firefighters:* • Effective the first full payroll period after September 30, 2022, 7.50% of Salary. • Effective the first full payroll period after September 30, 2023, 8.00% of Salary. • Effective the first full payroll period after September 30, 2024, 8.50% of Salary.
Village and State Contributions	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.

Normal Retirement

Date	Earlier of: 1) age 55, regardless of Credited Service, or 2) age 52 and 25 years of Credited Service.
Benefit	*Police Officers:* 2.50% of Average Monthly Earnings for years of Credited Service prior to October 1, 2018, 2.75% of Average Monthly Earnings for years of Credited Service on and after October 1, 2018, and 3.00% of Average Monthly Earnings for years of Credited Service on and after October 1, 2022. The maximum benefit accrual is 80% of Average Monthly Earnings for retirements on and after October 1, 2022 (the maximum benefit accrual is 75% of Average Monthly Earnings for retirements prior to that date). *Firefighters:* 2.50% of Average Monthly Earnings for years of Credited Service prior to October 1, 2018, and 2.75% of Average Monthly Earnings for years of Credited Service on and after October 1, 2018. The maximum benefit accrual is 80% of Average Monthly Earnings for retirements on and after October 1, 2022 (the maximum benefit accrual is 75% of Average Monthly Earnings for retirements prior to that date).
Form of Benefit	Ten Year Certain and Life Annuity (options available).

Early Retirement

Eligibility	Age 50, regardless of Credited Service.
Benefit	Accrued benefit, reduced 3% per year that the benefit commencement date precedes the Normal Retirement Date.

Vesting

Schedule	100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Early (reduced) or Normal Retirement Date.

<u>Disability</u>	
Eligibility	
Service Incurred	Covered from Date of Employment.
Non-Service Incurred	10 years of Credited Service.
Exclusions	Disability resulting from use of drugs, illegal participation in riots, service in military, etc.
Benefit	Benefit accrued to date of disability but not less than 42% of Average Final Compensation (25% for Non-Service Incurred).
Duration	Payable for life (with 120 payments guaranteed) or until recovery (as determined by the Board). Optional forms of payment are available.
<u>Death Benefits</u>	
Pre-Retirement	
Eligible for Retirement	Benefit payable as if Member retired on the date of death, selected a 50% Joint and Survivor annuity, and then passed away, with 50% of the benefit then continuing to the survivor for life.
Vested (not eligible for retirement)	Monthly accrued benefit payable to designated beneficiary for 10 years at otherwise Early (reduced) or Normal (unreduced) Retirement Date.
Non-Vested	Refund of accumulated contributions.
Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.
<u>Cost of Living Increases</u>	Up to 3% increase effective each October 1st in accordance with the Consumer Price Index, applied to all types of benefits.
<u>Board of Trustees</u>	Two Members shall be Fire employees, and two shall be Police employees, all elected by the Village Fire and Police employees. The other Member, who will be the Chairman of the Board, must be a resident of the Village and shall be selected by the Village Council.

Deferred Retirement Option Plan (DROP)

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Not to exceed 60 months.
Rate of Return	Actual net rate of investment return, but no less than 0.00% and no more than 6.40%.
Form of Distribution	Cash lump sum (options available) at termination of employment.

Supplemental Benefit	A Chapter 175 “Share Plan” was adopted with Resolution 2017-72, but is not currently funded. The methodology of allocating applicable State Monies will be agreed upon at a later date.