



April 27, 2021

Via Electronic Transmission

Florida Division of Retirement

To whom it may concern:

Re: 2020 Disclosure under F.S. 112.664

An attachment provides information under F.S. 112.664(1) for the City of Sunrise Firefighters' Retirement Plan (the Plan) as of October 1, 2020 in the format described in F.A.C. Rule 60T-1.0035. We have uploaded the semi-colon delimited file described by the rule.

The disclosure requirements for F.S. 112.664(2)(b)2. are found on page 24 of our attached October 1, 2020 actuarial valuation of the Plan. The GASB 67 and GASB 68 Supplements as of September 30, 2020 have also been attached.

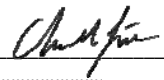
Please let us know if you have any questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads 'Paula C. Freiman'. The signature is written in black ink on a light green rectangular background.

Paula C. Freiman, ASA, EA  
Partner, Consulting Actuary

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were 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, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

(a) City/District.....	City of Sunrise City of Sunrise Firefighters' Retirement Plan
(b) Plan Name.....	
(c) Plan Type.....	Defined Benefit
(d) Valuation Date.....	10/01/2020
(e) Interest Rate:	
(e)(1) Discount Rate, net of investment fees.....	7.70%
(e)(2) Long-Term Expected Rate of Return, net of investment fees.....	7.70%
(f) Certification Statement	
(f)(1) Signature	
(f)(2) Actuary's Name.....	Chad M. Little
(f)(3) Enrollment Number.....	20-6619
(f)(4) Signature Date.....	04/09/2021
(f)(5) Cover letter attached (pdf)?.....	Y

**Section 112.664(1)(a), F.S. Total pension liability assuming mortality as used in FRS actuarial valuation**

(g) Total pension liability:	
(g)(1) Service cost.....	\$3,766,990
(g)(2) Interest.....	15,338,192
(g)(3) Benefit changes.....	0
(g)(4) Difference between expected and actual experience.....	(2,907,373)
(g)(5) Changes in assumptions.....	(3,207,909)
(g)(6) Benefit payments.....	(11,463,643)
(g)(7) Contribution refunds.....	0
(g)(8) Net change in total pension liability.....	\$1,526,257
(g)(9) Total pension liability – beginning of year.....	<u>\$199,233,450</u>
(g)(10) Total pension liability – ending of year.....	\$200,759,707
(h) Plan fiduciary net position:	
(h)(1) Contributions – Employer.....	\$6,300,844
(h)(2) Contributions – State.....	861,888
(h)(3) Contributions – Member.....	1,401,623
(h)(4) Net investment income.....	8,616,928
(h)(5) Benefit payments.....	(11,463,643)
(h)(6) Contributions refunds.....	0
(h)(7) Administrative expense.....	(151,349)
(h)(8) Other.....	<u>1,036</u>
(h)(9) Net change in plan fiduciary net position.....	\$5,567,327
(h)(10) Plan fiduciary net position – beginning of year.....	<u>\$146,249,304</u>
(h)(11) Plan fiduciary net position – ending of year.....	\$151,816,631
(i) Net pension liability/(asset) [(g)(10) minus (h)(11)].....	\$48,943,076

**Section 112.664(1)(b), F.S. Total pension liability assumed interest rate that is 200 basis points lower than that assumed in the valuation of the Plan**

(j) Total pension liability:	
(j)(1) Service cost.....	\$6,221,328
(j)(2) Interest.....	14,974,529
(j)(3) Benefit changes.....	0
(j)(4) Difference between expected and actual experience.....	(3,380,033)
(j)(5) Changes in assumptions.....	(6,085,307)
(j)(6) Benefit payments.....	(11,463,643)
(j)(7) Contribution refunds.....	0
(j)(8) Net change in total pension liability.....	\$266,874
(j)(9) Total pension liability – beginning of year.....	<u>\$258,317,168</u>
(j)(10) Total pension liability – ending of year.....	\$258,584,042
(k) Plan fiduciary net position:	
(k)(1) Contributions – Employer.....	\$6,300,844
(k)(2) Contributions – State.....	861,888
(k)(3) Contributions – Member.....	1,401,623
(k)(4) Net investment income.....	8,616,928
(k)(5) Benefit payments.....	(11,463,643)
(k)(6) Contributions refunds.....	0
(k)(7) Administrative expense.....	(151,349)
(k)(8) Other.....	<u>1,036</u>
(k)(9) Net change in plan fiduciary net position.....	\$5,567,327
(k)(10) Plan fiduciary net position – beginning of year.....	<u>\$146,249,304</u>
(k)(11) Plan fiduciary net position – ending of year.....	\$151,816,631
(l) Net pension liability/(asset) [(j)(10) minus (k)(11)].....	\$106,767,411

**Section 112.664(1)(c), F.S. (on last valuation basis)**

(m) Number of Years, and fractional parts of Years, for which the Market Value of Assets are adequate to sustain expected retirement benefits	16.94
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**Section 112.664(1)(c), F.S. (on Section 112.664(1)(a), F.S. basis)**

(n) Number of Years, and fractional parts of Years, for which the Market Value of Assets are adequate to sustain expected retirement benefits	16.94
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**Section 112.664(1)(c), F.S. (on Section 112.664(1)(b), F.S. basis)**

(o) Number of Years, and fractional parts of Years, for which the Market Value of Assets are adequate to sustain expected retirement benefits	14.09
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**Section 112.664(1)(d), F.S. (on last valuation basis)**

(p) Recommended Plan contributions in Annual Dollar Value.....	\$8,596,925
(q) Recommended Plan contributions as a Percentage of Valuation Payroll.....	60.12%

**Section 112.664(1)(d), F.S. (on Section 112.664(1)(a), F.S. basis)**

(r) Recommended Plan contributions in Annual Dollar Value.....	\$8,596,925
(s) Recommended Plan contributions as a Percentage of Valuation Payroll.....	60.12%

**Section 112.664(1)(d), F.S. (on Section 112.664(1)(b), F.S. basis)**

(t) Recommended Plan contributions in Annual Dollar Value.....	\$13,935,002
(u) Recommended Plan contributions as a Percentage of Valuation Payroll.....	97.45%



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# City of Sunrise

# Firefighters' Retirement Plan

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## Actuarial Valuation as of October 1, 2020



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February 4, 2021

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS  
FOR THE PLAN AND FISCAL YEAR  
ENDING SEPTEMBER 30, 2022





February 4, 2021

Board of Trustees  
City of Sunrise Firefighters' Retirement Plan  
Sunrise, Florida

**RE: Actuarial Valuation as of October 1, 2020**

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2020 for the City of Sunrise Firefighters' Retirement Plan (the Plan). This report provides a review of the current funded status of the Plan, establishes the minimum funding requirements for the fiscal year ending September 30, 2022 and provides an analysis of experience since the last valuation. In addition to providing the summary and derivation of actuarial findings, this report describes the data, assumptions, and methods used to create these results.

In producing our work product, we rely on various models, internal and external, which were used for their intended purposes. Underlying data, assumptions, methodologies, model inputs and resulting outputs have been reviewed. The 7.7% assumed net return is a prescribed assumption as defined by Actuarial Standard of Practice No. 27 (ASOP 27), as it is set by the Board. While we find all other inputs and outputs to be reasonable, the prescribed assumption significantly conflicts with our judgment regarding what would constitute a reasonable assumption for the purpose of the measurement as discussed in ASOP 27. We continue to recommend lowering the net assumed return.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Statement by Enrolled Actuary:

"This actuarial valuation and/or cost determination 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."

RE: Actuarial Valuation as of October 1, 2020  
February 4, 2021  
Page 2

We look forward to the presentation of these results to you in person and we are always available to answer any questions you may have.

Sincerely,



Chad M. Little, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 20-6619



Paula C. Freiman, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 20-5796

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## Section

## 1

## Board Summary

This report presents the results of the October 1, 2020 actuarial valuation of the City of Sunrise Firefighters' Retirement Plan (the Plan).

## Summary of Principal Valuation Results

A summary of the key valuation findings as of October 1, 2020 are compared with the results of the prior year below.

## Minimum Funding Requirements

## Fiscal Year Ending September 30,

2021

2022

## As a Dollar Amount

Estimated Minimum Required City Contribution*	\$6,503,650	\$6,215,005
Estimated State Contribution	<u>821,826</u>	<u>861,888</u>
Total Minimum Funding Requirement (City plus State)	\$7,325,476	\$7,076,893

## As a Percentage of Payroll

Estimated Minimum Required City Contribution	48.23%	43.46%
Estimated State Contribution	<u>6.10%</u>	<u>6.03%</u>
Total Minimum Funding Requirement (City plus State)	54.33%	49.49%

## Estimated Minimum Required City Contribution

As a Percent of Payroll Including DROP	37.82%	35.40%
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## Funded Status

## Valuation Date as of October 1,

2019

2020

Accrued Liability (AL)	\$199,233,450	\$200,759,707
Actuarial Value of Assets	<u>146,366,705</u>	<u>155,203,516</u>
Unfunded Accrued Liability (UAL)	\$52,866,745	\$45,556,191
Funded Percentage	73.46%	77.31%

## Key Assumptions

## Valuation Date as of October 1,

2019

2020

Assumed Rate of Investment Return	7.80%	7.70%
Salary Increase Assumption	12.00%	12.00%
	to 5.00%	to 5.00%
Total Payroll Increase Assumption	3.00%	3.00%
Funding Method	Entry Age	Entry Age

\*The total minimum funding requirement has been determined assuming the estimated minimum required City contribution is deposited on the first day of the fiscal year.

## Summary of Significant Events

Determination of the funded status of the Plan and minimum funding requirements are based on participant data, asset information, Plan provisions, actuarial methods and assumptions, as well as contributions made to the Plan by the State of Florida. Any significant events associated with these items are discussed in the following.

In preparing our report we relied, without audit, on information (some oral and some written) supplied by the Plan Administrator and the City. This information includes, but is not limited to, statutory provisions, employee census, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

### Participant Data

The number of active members increased from 122 to 132 along with a 6.1% increase in total valuation salary in comparison to the 3.0% payroll growth expected. The following provides a summary of the valuation payroll increases over the last 26 years along with the actual to the expected average pay increases for continuing active members for the 12-month periods ending on the date specified.

Valuation as of 10/1	Total Valuation Salary	Percent Change	Average Individual Salary Increase for Continuing Actives	
			Actual	Expected
2020	\$13,882,964	6.1 %	2.6 %	6.5 %
2019	13,090,808	5.0 %	3.9 %	6.9 %
2018	12,463,721	(0.6)%	6.9 %	7.8 %
2017	12,541,903	2.7 %	8.3 %	7.7 %
2016	12,217,142	6.6 %	10.1 %	7.8 %
2015	11,458,711	3.5 %	4.7 %	7.7 %
2014	11,075,775	0.8 %	3.3 %	7.0 %
2013	10,991,092	2.1 %	8.7 %	7.1 %
2012	10,762,274	(2.2)%	5.9 %	7.5 %
2011	11,009,676	0.8 %	6.5 %	8.1 %
2010	10,926,750	2.6 %	8.7 %	8.4 %
2009	10,646,316	6.8 %	9.6 %	6.5 %
2008	9,972,947	2.2 %	8.1 %	6.4 %
2007	9,758,384	(3.3)%	9.4 %	6.0 %
2006	10,095,003	12.6 %	19.0 %	6.0 %
2005	8,964,808	22.2 %	15.5 %	6.0 %
2004	7,339,091	(2.2)%	6.5 %	6.0 %
2003	7,501,014	7.7 %	6.6 %	6.0 %
2002	6,963,566	(10.7)%	1.1 %	6.2 %
2001	7,800,496	2.8 %	3.3 %	5.9 %
2000	7,587,427	18.6 %	18.0 %	6.0 %
1999	6,398,928	2.1 %	4.8 %	6.2 %
1998	6,264,836	2.7 %	3.0 %	6.3 %
1997	6,100,002	5.1 %	7.5 %	6.4 %
1996	5,804,779	2.0 %	4.6 %	8.6 %
1995	5,688,338	6.1 %	6.5 %	8.6 %
26 Year Geometric Average		3.7 %	7.3 %	6.9 %
10 Year Geometric Average		2.4 %	6.1 %	7.4 %

In general, there was a demographic gain for the year primarily due two deaths and salary increases less than expected offset by experience related to DROP entry sooner than expected and termination less than expected.

## Assets

While the return on the Market Value of Assets was 5.84%, the return on the Actuarial Value of Assets used for funding purposes was 8.06%. An actuarial gain resulted due to the return on the Actuarial Value of Assets being more than the 7.8% net assumed rate of return expected for the year ending September 30, 2020.

Note only a portion of actual investment gains or losses are recognized in the current year's Actuarial Value of Assets with the remainder recognized over the next four years. Even if all assumptions are realized in the next several years, the Plan will experience changes in the required contribution rate until prior gains and losses are fully recognized.

The following provides a summary of the actual return on investments for the 12-month periods ending on the date specified.

<b>Year Ending 9/30</b>	<b>Market Value</b>	<b>Market Return</b>	<b>Actuarial Value</b>	<b>Actuarial Return</b>
2020	\$151,816,631	5.8 %	\$155,203,516	8.1 %
2019	146,249,304	4.1 %	146,366,705	7.5 %
2018	146,237,269	10.1 %	141,684,463	8.5 %
2017	135,548,638	11.6 %	133,325,268	9.0 %
2016	120,391,017	10.1 %	121,256,853	9.9 %
2015	108,526,799	0.2 %	109,591,534	9.5 %
2014	109,371,318	10.5 %	100,869,650	11.7 %
2013	99,036,104	15.7 %	90,378,144	10.1 %
2012	87,062,354	19.7 %	83,654,894	4.1 %
2011	72,682,594	1.4 %	80,234,911	2.7 %
2010	69,936,309	9.1 %	76,423,148	3.4 %
2009	64,716,039	2.5 %	74,485,927	4.9 %
2008	61,800,073	(11.9)%	69,907,712	4.7 %
2007	67,155,119	14.6 %	63,807,522	11.1 %
2006	58,480,418	7.8 %	57,335,947	7.1 %
2005	53,563,473	11.7 %	52,871,432	4.5 %
2004	47,189,418	9.9 %	49,829,592	5.8 %
2003	42,863,996	16.6 %	47,000,335	6.2 %
2002		(7.6)%	44,143,681	3.8 %
2001		(8.1)%	42,283,875	6.2 %
2000		14.3 %	39,660,141	14.9 %
1999		14.7 %	34,474,748	13.4 %
1998		5.2 %	29,427,605	8.3 %
1997		24.6 %	26,242,175	20.6 %
1996		11.9 %	20,823,116	12.1 %
25 Year Geometric Average		7.8 %		8.2 %
10 Year Geometric Average		8.8 %		8.1 %

Investment returns less than the assumed rate of return result in increased annual minimum required contributions.

## Plan Provisions

There were no changes in Plan provisions since the prior valuation of the Plan.

## Assumptions and Methods

The mortality assumption is as required by state statute. In the prior valuation the mortality assumption was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2016, 2017 and 2018. Mortality was revised for this October 1, 2020 actuarial valuation to that assumed for special risk employees in the FRS valuation as of July 1, 2019 and 2020.

The net assumed rate of investment return was revised from 7.8% used in the October 1, 2019 actuarial valuation to 7.7% for this October 1, 2020 actuarial valuation of the Plan as directed by the Board of Trustees. The 7.7% net assumed return is a prescribed assumption as defined by Actuarial Standard of Practice No. 27 (ASOP 27), as it is set by the Board. The prescribed assumption significantly conflicts with our judgment regarding what would constitute a reasonable assumption for the purpose of the measurement as discussed in ASOP 27. As discussed with the Board we recommend lowering the net assumed return.

Please also see comments related to an experience review conducted October 1, 2014 in our prior actuarial valuation report.

The impact of any changes in assumptions and methods may be found in the reconciliation of the funded status and minimum funding requirements found near the end of Section 2 of this report. See "Reconciliation of Unfunded Accrued Liability" and "Reconciliation of City Minimum Required Contribution" in the table of contents.

## State Contributions

The Estimated Minimum Required City Contribution shown on page 1 assumes that the premium tax money received from the State will be in the same amount received in the prior year. Should the amount received in from the State be less than expected, the City will need to contribute any potential shortfall to the Plan.

## Assessment and Disclosure of Risk

As described in Actuarial Standard of Practice No. 51 (ASOP 51), this section is meant to address the assessment and disclosure of risk in a pension funding valuation. This is not meant to be a comprehensive summary but should provide information regarding risks related to this plan. Additional historical information provided in this report also contain relevant information regarding asset size, asset mix, pay increases, benefits and contributions. This information can be used to understand the changes over time to identify trends.

Note that ASOP 51 defines risk as "The potential of actual future measurements deviating from expected future measurements resulting from actual future experience deviating from actuarially assumed experience...." The following provides examples of potential risk.

**Investment Risk:** As noted previously, investment returns less than the assumed rate of return result in increased annual minimum required contributions payable in a subsequent year.

**Interest Rate Risk:** Interest rates are used to discount the value of benefits. If the long-term expectation of returns is higher or lower than the assumed net investment return, the assumed net investment return should be adjusted. When the assumed net investment return is increased the estimated liability is decreased. When the assumed net investment return is decreased the estimated liability is increased. The chart below shows what the funded status of the plan is on a market value of assets basis after changing the net assumed return by 1% or 2%.

<b>Funded Status on Market Value of Assets Basis</b>						
<b>As of 10/1</b>	<b>2% Decrease</b>	<b>1% Decrease</b>	<b>Valuation Net Assumed Return</b>	<b>1% Increase</b>	<b>2% Increase</b>	<b>Valuation Net Assumed Return Assumption</b>
2020	58.71%	67.01%	75.62%	84.49%	93.57%	7.70%
2019	56.62%	64.85%	73.41%	82.20%	91.19%	7.80%
2018	57.88%	66.20%	74.80%	83.61%	92.56%	7.80%
2017	56.00%	64.05%	72.37%	80.87%	89.50%	7.80%
2016	53.22%	60.91%	68.86%	77.01%	85.30%	7.85%

**Longevity and Other Demographic Risks:** The estimated liability of the Plan is based on assumptions related to mortality, retirement, disability and termination. To the extent that Plan experience is different than these assumptions the gains and losses affect future required contributions and estimated liability.

**Contribution Risk:** The possibility that the plan sponsor does not make contributions to the plan according to the funding policy.

**Intergenerational equity risk:** Intergenerational equity is the concept that resources do not belong to a specific generation and they must be preserved for future generations. One way to alleviate this risk is to pay for benefits over the average future service of the group receiving benefits. Members may feel there are inequities when one is paying more than others, receiving less than others, or paying more than others in relation to what they are receiving.

Plan maturity measures may help understand the risks associated with the plan. As the Plan matures, the ratio of the Market Value of Assets to the Covered Payroll increases. As this ratio gets larger, the impact of asset volatility has a larger effect on the volatility of the Minimum Required Contribution as a percentage of pay.

<b>Year Ending 9/30</b>	<b>Market Value of Assets</b>	<b>Covered Valuation Payroll</b>	<b>Asset Volatility Ratio</b>
2020	\$151,816,631	\$13,882,964	10.9
2019	146,249,304	13,090,808	11.2
2018	146,237,269	12,463,721	11.7
2017	135,548,638	12,541,903	10.8
2016	120,391,017	12,217,142	9.9
2015	108,526,799	11,458,711	9.5
2014	109,371,318	11,075,775	9.9
2013	99,036,104	10,991,092	9.0
2012	87,062,354	10,762,274	8.1
2011	72,682,594	11,009,676	6.6
2010	69,936,309	10,926,750	6.4
2009	64,716,039	10,646,316	6.1
2008	61,800,073	9,972,947	6.2
2007	67,155,119	9,758,384	6.9
2006	58,480,418	10,095,003	5.8
2005	53,563,473	8,964,808	6.0
2004	47,189,418	7,339,091	6.4
2003	42,863,996	7,501,014	5.7

Another measure of a pension plan's maturity is the Ratio of Benefit Payments to Contributions. Over the life of a pension plan, it is expected that the majority of the benefits will be paid for by returns rather than contributions. For this to happen, as a plan matures, the plan will eventually pay out more in benefits than it receives in contributions. It is important to understand the magnitude of this difference so that steps can be taken, if necessary, to manage cash flows going forward. The table below provides the Ratio of Benefit Payments to Contributions. Note that there are other cash flows to be considered such as interest and dividends earned or expenses paid by a pension plan.

<b>Year Ending 9/30</b>	<b>Benefit Payments</b>	<b>Contributions</b>	<b>Ratio of Benefit Payments to Contributions</b>
2020	\$11,463,643	\$8,564,355	1.34
2019	14,169,964	8,441,926	1.68
2018	10,960,320	8,036,028	1.36
2017	6,463,144	7,538,727	0.86
2016	6,501,439	7,327,250	0.89
2015	8,093,516	7,235,540	1.12
2014	7,121,213	6,976,695	1.02

When looking at Net Cash Flows, it is useful to understand the relative size of the cash flows in comparison to the Market Value of Assets. The following table provides the ratio of the Net Cash Flows divided by the Market Value of Assets. As mentioned previously, there are other cash flows to be considered such as interest and dividends earned or expenses paid by a pension plan.

<b>Year Ending 9/30</b>	<b><u>Contributions</u></b>	<b><u>Disbursements</u></b>	<b><u>Assets</u></b>	<b>Net Cash Flow Divided by <u>Assets</u></b>
2020	\$8,564,355	\$11,614,992	\$151,816,631	(0.02)
2019	8,441,926	14,369,744	146,249,304	(0.04)
2018	8,036,028	11,157,789	146,237,269	(0.02)
2017	7,538,727	6,683,436	135,548,638	0.01
2016	7,327,250	6,712,260	120,391,017	0.01
2015	7,235,540	8,256,331	108,526,799	(0.01)
2014	6,976,695	7,281,255	109,371,318	(0.00)

## Section 2 Results Derivation

In this section, the assets and liabilities of the Plan are shown in detail. Assets and liabilities are then compared to determine the funded status and minimum funding requirements. Finally, analysis is performed to explain movement in results from the prior valuation.

While asset information is based on the fair market value of assets, along with any techniques used to smooth out market fluctuations, liabilities are determined through a combination of the benefit provisions, participant census data which contains information for the members who will receive those benefits, and the methods and assumptions used with regard to how benefits will be paid to members. A summary of participant data, an outline of the benefit provisions, and a description of the methods and assumptions used in this valuation are described in Section 4.

### Financial Information

Over the life of the Plan, the majority of assets are typically generated from investment return. In this section, we describe how the assets of the Plan are invested, show how the actuarial value of assets is derived, and review the investment results since the prior valuation.

Valuation Date	October 1, 2019		October 1, 2020	
Money market funds	\$3,674,298	3%	\$3,090,846	2%
U.S. government securities	9,630,985	7%	7,616,568	5%
Corporate bonds	3,883,933	3%	5,160,619	3%
Common stock	52,286,836	35%	57,091,181	38%
International equity funds	9,522,760	7%	9,945,568	7%
Collective investment funds	45,581,266	30%	47,328,557	31%
Commingled real estate funds	21,508,488	15%	21,687,051	14%
Net receivables	<u>160,738</u>	<u>0%</u>	<u>(103,759)</u>	<u>0%</u>
Fair Market Value	\$146,249,304	100%	\$151,816,631	100%



## Reconciliation of Market Value of Assets

Year Ending September 30,	2019	Revised 2019	2020
1. <b>Market Value of Assets Beginning of Year</b>	\$146,237,269	\$146,237,269	\$146,250,340
2. Contributions			
a. City	\$6,279,661	\$6,279,661	\$6,300,844
b. State	821,826	821,826	861,888
c. Plan Members	<u>1,340,439</u>	<u>1,341,475</u>	<u>1,401,623</u>
d. Total Contributions	\$8,441,926	\$8,442,962	\$8,564,355
3. Investment earnings			
a. Unrealized gain or (loss)	\$(1,247,040)	\$(1,247,040)	\$3,063,896
b. Realized gain or (loss)	5,044,438	5,044,438	3,618,566
c. Interest and dividends	2,835,967	2,835,967	2,618,753
d. Other income	11,158	11,158	5,680
e. Investment expense	<u>(704,670)</u>	<u>(704,670)</u>	<u>(689,967)</u>
f. Net investment income	\$5,939,853	\$5,939,853	\$8,616,928
4. Deductions			
a. Pension benefits	\$(14,163,770)	\$(14,163,770)	\$(11,463,643)
b. Contribution refunds	(6,194)	(6,194)	0
c. Administrative expenses	<u>(199,780)</u>	<u>(199,780)</u>	<u>(151,349)</u>
d. Total Deductions	\$(14,369,744)	\$(14,369,744)	\$(11,614,992)
5. Net Increase	\$12,035	\$13,071	\$5,566,291
6. <b>Market Value of Assets End of Year</b>	\$146,249,304	\$146,250,340	\$151,816,631
7. <b>Return on Market Value of Assets</b>	4.07%	4.07%	5.84%

Note: The market value of assets as of October 1, 2019 was revised in the work of the auditor at October 1, 2020. Because the \$1,036 difference in employee contributions was small it is not reflected in the calculations performed for this funding valuation.

## Development of Actuarial Value of Assets

1.	Market Value of Assets as of 9/30/2020			\$	151,816,631
2.	Phase-In Gains (Losses) Over Five Year Period				
		<b>Original Gain (Loss)</b>	<b>Percent Unrecognized</b>		<b>Unrecognized Gain (Loss)</b>
a.	Year Ending 9/30/2020	\$ (2,882,627)	80%	\$	(2,306,102)
b.	Year Ending 9/30/2019	(5,448,325)	60%		(3,268,995)
c.	Year Ending 9/30/2018	3,154,057	40%		1,261,623
d.	Year Ending 9/30/2017	4,632,944	20%		<u>926,589</u>
e.	Total			\$	(3,386,885)
3.	Preliminary Actuarial Value of Assets as of 9/30/2020			\$	155,203,516
4.	Corridor Around Market Value				
a.	Minimum = 80% of Market Value of Assets			\$	121,453,305
b.	Maximum = 120% of Market Value of Assets			\$	182,179,957
c.	Corridor Adjustment to Preliminary Actuarial Value			\$	0
5.	Actuarial Value of Assets as of 9/30/2020 (3. + 4.c.)			\$	155,203,516

## Development of Historical Market Gains and Losses for Asset Smoothing

		<b>2020</b>	<b>2019</b>
1.	Market Value of Assets - Beginning of Year	\$ 146,249,304	\$ 146,237,269
2.	Contributions	8,564,355	8,441,926
3.	Benefit Payments + Administrative Expenses	(11,614,992)	(14,369,744)
4.	Expected Return on Assets	<u>11,500,591</u>	<u>11,388,178</u>
5.	Expected Value of Assets at End of Year	\$ 154,699,258	\$ 151,697,629
6.	Market Value of Assets - End of Year	\$ 151,816,631	\$ 146,249,304
7.	Gain (Loss) for Plan Year = (6) - (5)	\$ (2,882,627)	\$ (5,448,325)
		<b>2018</b>	<b>2017</b>
1.	Market Value of Assets - Beginning of Year	\$ 135,548,638	\$ 120,391,017
2.	Contributions	8,036,028	7,538,727
3.	Benefit Payments + Administrative Expenses	(11,157,789)	(6,683,436)
4.	Expected Return on Assets	<u>10,656,335</u>	<u>9,669,386</u>
5.	Expected Value of Assets at End of Year	\$ 143,083,212	\$ 130,915,694
6.	Market Value of Assets - End of Year	\$ 146,237,269	\$ 135,548,638
7.	Gain (Loss) for Plan Year = (6) - (5)	\$ 3,154,057	\$ 4,632,944

## State Contributions

Year Ending September 30	State Contributions	Recurring Cost Benefit Improvements	Base Plus Benefit Improvements	One-time Use Benefit Improvements	Recognized State Funding	Cumulative Balance Available Upon Benefit Improvement
2020	\$861,888	\$0	\$2,055,127	\$0	\$861,888	\$0
2019	821,826	0	2,055,127	0	821,826	\$0
2018	763,749	0	2,055,127	0	763,749	0
2017	766,995	0	2,055,127	0	766,995	0
2016	803,419	0	2,055,127	0	803,419	0
2015	853,244	0	2,055,127	0	853,244	0
2014	879,470	0	2,055,127	0	879,470	0
2013	864,612	0	2,055,127	0	864,612	0
2012	771,973	0	2,055,127	0	771,973	0
2011	769,600	0	2,055,127	0	769,600	0
2010	819,768	0	2,055,127	0	819,768	0
2009	859,647	0	2,055,127	0	859,647	0
2008	941,067	0	2,055,127	0	941,067	0
2007	814,996	0	2,055,127	0	814,996	0
2006	575,948	781,763	2,055,127	0	575,948	0
2005	521,744	979,283	1,273,364	352,586	874,330	0
2004	485,452	0	294,081	0	294,081	352,586
2003	415,465	0	294,081	0	294,081	161,215
2002	330,685	0	294,081	0	294,081	39,831
2001	267,885	0	294,081	0	267,885	3,227
2000	266,742	0	294,081	0	266,742	3,227
1999	297,308	0	294,081	0	294,081	3,227
1998	294,081	0	294,081	0	294,081	0

Note: As provided for in Ordinance No. 124-X-16-C adopted effective July 12, 2016, Chapter 175 contributions received each fiscal year in excess of \$2,055,127 may be used to provide Share Plan benefits.

## Present Value of Benefits

Valuation as of October 1,	2019	2020
<b>1. Active Members</b>		
a. Retirement Benefits	\$77,291,935	\$84,194,895
b. Deferred Benefits	4,339,059	4,487,619
c. Survivor Benefits	829,847	658,845
d. Disability Retirement	<u>4,561,361</u>	<u>4,968,332</u>
e. Total for Active Members	\$87,022,202	\$94,309,691
<b>2. Inactive Members</b>		
a. Retirement Including DROP	\$141,948,898	\$138,727,707
b. Terminated Vested	0	0
c. Beneficiaries	2,100,166	2,020,710
d. Disability Retirement	<u>3,459,255</u>	<u>3,395,120</u>
e. Total in Payment Status	\$147,508,319	\$144,143,537
<b>3. Present Value of Benefits (PVB)</b>	\$234,530,521	\$238,453,228

## Accrued Liability – Entry Age Normal

Valuation as of October 1,	2019	2020
<b>1. Active Members</b>		
a. Retirement Benefits	\$48,742,269	\$53,746,924
b. Deferred Benefits	916,855	821,971
c. Survivor Benefits	450,603	352,974
d. Disability Retirement	<u>1,615,404</u>	<u>1,694,301</u>
e. Total for Active Members	\$51,725,131	\$56,616,170
<b>2. Members in Payment Status</b>		
a. Retirement Including DROP	\$141,948,898	\$138,727,707
b. Terminated Vested	0	0
c. Beneficiaries	2,100,166	2,020,710
d. Disability Retirement	<u>3,459,255</u>	<u>3,395,120</u>
e. Total in Payment Status	\$147,508,319	\$144,143,537
<b>3. Accrued Liability (AL)</b>	\$199,233,450	\$200,759,707

## Normal Cost – Entry Age Normal

Valuation as of October 1,	2019	2020
<b>1. Preliminary Normal Cost</b>		
a. Retirement Benefits	\$3,043,560	\$3,262,362
b. Deferred Benefits	362,749	391,006
c. Survivor Benefits	40,436	32,770
d. Disability Retirement	<u>320,245</u>	<u>355,228</u>
e. Total Preliminary Normal Cost	\$3,766,990	\$4,041,366
f. Preliminary NC as a Percent of Payroll	28.78%	29.11%
<b>2. Total Normal Cost</b>		
a. Preliminary Normal Cost	\$3,766,990	\$4,041,366
b. Estimated Administrative Expense	<u>199,780</u>	<u>151,349</u>
c. Total Normal Cost	\$3,966,770	\$4,192,715
d. Total Normal Cost as a Percent of Pay	30.30%	30.20%
<b>3. Actual Employer Normal Cost</b>		
a. Preliminary Normal Cost	\$3,766,990	
b. Actual Expenses	151,349	
c. Actual Employee Contributions	<u>(1,401,623)</u>	
d. Actual Employer Normal Cost	\$2,516,716	
<b>4. Payroll</b>	\$13,090,808	\$13,882,964

## Unfunded Accrued Liability

Year Beginning October 1,	2020
<b>Unfunded Accrued Liability (UAL)</b>	
1. Accrued Liability	\$200,759,707
2. Actuarial Value of Assets	<u>155,203,516</u>
3. Unfunded Accrued Liability	\$45,556,191

### Determination of Expected Unfunded Accrued Liability

1. Unfunded Accrued Liability as of Prior Year	\$52,866,745
2. Employer Normal Cost	2,516,716
3. Interest on UAL and NC	4,319,910
4. Contributions	
a. City	\$(6,300,844)
b. State of Florida	<u>(861,888)</u>
c. Total	\$(7,162,732)
5. Interest on Contribution for Time on Deposit	(491,466)
6. Change in Plan, Methods or Assumptions	<u>(3,207,909)</u>
7. Expected UAL as of Current Year	\$48,841,264

### Calculation of (Gain) or Loss

1. Actual Unfunded Accrued Liability	\$45,556,191
2. Expected UAL	<u>48,841,264</u>
3. Total (Gain) or Loss	\$(3,285,073)
4. Breakdown of (Gain) or Loss	
a. Investment (Gain) or Loss	\$(377,700)
b. Demographic Experience (Gain) or Loss	<u>(2,907,373)</u>
c. Total (Gain) or Loss	\$(3,285,073)

### Calculation of Actuarial Asset (Gain) or Loss

1. Actuarial Value of Assets - Beginning of Year	\$146,366,705
2. Contributions	8,564,355
3. Benefit Payments + Administrative Expenses	(11,614,992)
4. Expected Return on Assets	<u>11,509,748</u>
5. Expected Actuarial Value at End of Year	\$154,825,816
6. Actuarial Value of Assets - End of Year	\$155,203,516
7. Gain (Loss) for Plan Year = (6) - (5)	\$377,700
8. Actual Investment Income	\$11,887,448
9. Actual % Return	8.06 %



## Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level percentage of payroll based on the net assumed return on investments and a 3.0% payroll growth assumption. Note that a fresh start was implemented effective October 1, 2013 over 24.9945 years. New bases are amortized over a 25-year period.

## Amortization Bases

	<b>Date 10/1</b>	<b>Source</b>	<b>Original Balance</b>	<b>Remaining Balance</b>	<b>Remaining Adjusted Balance</b>	<b>Years Remain</b>	<b>Amortization Payment</b>
1.	2013	Fresh Start	\$55,204,509	\$53,906,897	\$53,323,048	17.9945	\$4,215,713
2.	2014	Actuarial Gain	(4,786,283)	(4,706,995)	(4,656,015)	19.0000	(355,446)
3.	2014	Assumption Chg	172,854	169,990	168,149	19.0000	12,837
4.	2015	Actuarial Gain	(2,267,545)	(2,254,804)	(2,230,383)	20.0000	(164,879)
5.	2015	Assumption Chg	1,643,838	1,634,602	1,616,898	20.0000	119,527
6.	2016	Actuarial Gain	(641,300)	(642,508)	(635,549)	21.0000	(45,601)
7.	2016	Assumption Chg	4,703,070	4,711,938	4,660,905	21.0000	334,424
8.	2017	Actuarial Gain	(1,244,698)	(1,245,902)	(1,232,408)	22.0000	(86,009)
9.	2017	Assumption Chg	1,196,786	1,197,943	1,184,968	22.0000	82,698
10.	2018	Actuarial Loss	78,564	78,699	77,847	23.0000	5,294
11.	2019	Actuarial Gain	(229,094)	(230,787)	(228,287)	24.0000	(15,157)
12.	2020	Actuarial Gain	(3,285,073)	(3,285,073)	(3,285,073)	25.0000	(213,252)
13.	2020	Assumption Chg	(3,207,909)	<u>(3,207,909)</u>	<u>(3,207,909)</u>	25.0000	<u>(208,243)</u>
				\$46,126,091	\$45,556,191		\$3,681,906

## Projected Unfunded Accrued Liability and Amortization Payments

<b>Year Beginning October 1,</b>	<b>Outstanding Bases</b>	<b>Amortization Payment</b>
2020	\$45,556,191	\$3,681,906
2021	45,098,605	3,792,363
2022	44,486,823	3,906,134
2023	43,705,402	4,023,318
2024	42,737,604	4,144,019
2025	41,565,291	4,268,339
2026	40,168,817	4,396,388
2027	38,526,906	4,528,280
2028	36,616,521	4,664,129
2029	34,412,726	4,804,052
2030	31,888,542	4,948,174
2031	29,014,776	5,096,619
2032	25,759,855	5,249,520
2033	22,089,631	5,407,002
2034	17,967,191	5,569,213
2035	13,352,623	5,736,291
2036	8,202,789	5,908,378
2037	2,471,081	6,048,152
2038	(3,852,506)	(908,770)
2039	(3,170,403)	(335,266)
2040	(3,053,443)	(263,413)
2041	(3,004,863)	(810,219)
2042	(2,363,631)	(827,031)
2043	(1,654,919)	(861,083)
2044	(854,961)	(854,961)
2045	0	0

## Actions Taken to Reduce Unfunded Actuarial Accrued Liability

The required contributions calculated each year include a payment for the amortization of the unfunded accrued liability. This payment is designed to reduce the unfunded actuarial accrued liability in an orderly fashion.

## Minimum Funding Requirements

<b>Valuation as of October 1, Funding for Fiscal Year Ending September 30,</b>	<b>2019 2021</b>	<b>2020 2022</b>
1. Normal Cost	\$3,966,770	\$4,192,715
2. Amortization of UAL	<u>4,054,990</u>	<u>3,681,906</u>
3. Minimum Required Contribution at Valuation Date	\$8,021,760	\$7,874,621
4. Interest Adjustment	<u>737,015</u>	<u>722,304</u>
5. Total Minimum Required Contribution With City Portion Payable on First Day of Funding Year	\$8,758,775	\$8,596,925
6. Expected Employee Contributions	\$1,433,299	\$1,520,032
7. Expected State Contribution	821,826	861,888
8. Estimated City Contribution	<u>6,503,650</u>	<u>6,215,005</u>
9. Total Minimum Required Contribution With City Portion Payable on First Day of Funding Year	\$8,758,775	\$8,596,925
10. Expected Employee Contributions	10.63%	10.63%
11. Expected State Contribution	6.10%	6.03%
12. Estimated City Contribution	<u>48.23%</u>	<u>43.46%</u>
13. Total Minimum Required Contribution Payable on First Day of Funding Year	64.96%	60.12%
14. Payroll for Active Members on Valuation Date		
a. In Year After Valuation Date	\$13,090,808	\$13,882,964
b. Expected in Funding Year	13,483,532	14,299,453
15. Key Assumptions		
a. Net Annual Rate of Return	7.80%	7.70%
b. Total Payroll Inflation	3.00%	3.00%

**Note:** The Estimated City Contribution shown in item 8. must be deposited on the first day of the fiscal year.

## Reconciliation of Unfunded Accrued Liability

	Unfunded Accrued Liability	Funded %	Change in Unfunded Accrued Liability	Change in Funded %
<b>As of Prior Valuation Report</b>	\$52,866,745	73.46 %		
Changes in Funded Status Due to:				
Normal Operation of Plan	52,049,173	74.84 %	\$(817,572)	1.38 %
Investment Experience	51,671,473	75.02 %	(377,700)	0.18 %
Demographic Experience	48,764,100	76.09 %	(2,907,373)	1.07 %
New Mortality	43,255,781	78.20 %	(5,508,319)	2.11 %
Net Return 7.7%	45,556,191	77.31 %	<u>2,300,410</u>	<u>(0.89)%</u>
Total Changes			\$(7,310,554)	3.85 %
<b>As of Current Valuation</b>	\$45,556,191	77.31 %		

## Reconciliation of City Minimum Required Contribution

	Dollar Amount	Percent of Pay
<b>As of Prior Valuation Report</b>	\$6,503,650	48.23 %
Changes in Contribution due to:		
Normal Operation of Plan	\$217,981	0.17 %
Change in Expense	(52,209)	(0.38)%
Change in State \$	(37,163)	(0.26)%
Investment Experience	(26,670)	(0.20)%
Demographic Experience	(178,319)	(2.61)%
New Mortality	(439,842)	(3.08)%
Net Return 7.7%	<u>227,577</u>	<u>1.59 %</u>
Total Changes	\$(288,645)	(4.77)%
<b>As of Current Valuation</b>	\$6,215,005	43.46 %

# Section 3 Accounting Information

## Information Required by GASB 67/68

Supplemental reports provide information under the Governmental Accounting Standards Board No. 67/68.

## Statement of Accumulated Plan Benefits (FASB 35)

The following table is based on prior accounting standards and is required by the State. The present value of accrued benefits is an estimate of the liability for all benefits accrued to date.

Year Beginning October 1,	2019	2020
1. Actuarial present value of accumulated plan benefits		
a. Participants currently receiving benefits	\$147,508,319	\$144,143,537
b. Other participants	<u>31,064,067</u>	<u>34,859,054</u>
c. Total vested plan benefits	\$178,572,386	\$179,002,591
d. Total non-vested plan benefits	<u>3,912,747</u>	<u>5,230,070</u>
e. Total accumulated plan benefits	\$182,485,133	\$184,232,661
2. Change in present value of accumulated plan benefits		
a. Accumulated plan benefits beginning of year		\$182,485,133
b. Increase (decrease) during year due to:		
i. Plan amendment		\$0
ii. Change in assumptions or methods		(3,103,081)
iii. Benefits paid		(11,463,643)
iv. Other		<u>16,314,252</u>
v. Net increase (decrease)		\$1,747,528
c. Accumulated plan benefits end of year		\$184,232,661

## Other Disclosures Required by the State of Florida

This additional disclosure information is provided, where applicable.

Year Beginning October 1,	2019	2020
Present value of active member:		
Future salaries (attained age)	\$125,599,708	\$133,134,199
Future contributions (attained age)	\$13,351,249	\$14,152,165
Balance of Active Member Employee Contributions	\$10,144,059	\$11,310,523

## Required Disclosure Under F.S. 112.664(1)

As required under F.S. Section 112.664(1) we have produced the following information:

- (a) Total pension liability calculated based on mortality used in one of the last two Florida Retirement System (FRS) valuations. This actuarial valuation assumes mortality as used in the July 1, 2019 and 2020 actuarial valuation for special risk members of FRS.
- (b) Total pension liability calculated using an assumed interest rate that is 200 basis points lower than that assumed in the valuation of the Plan.
- (c) Determination of the number of months or years for which the current market value of assets is adequate to sustain the payment of expected retirement benefits.
- (d) Recommended contribution to the Plan using the most recent valuation and the contributions necessary prepared pursuant to (a) and (b) stated as a dollar amount and % of payroll.

	2% Decrease (5.70%)	Current Discount Rate (7.70%)	2% Increase (9.70%)
Total pension liability	\$258,584,042	\$200,759,707	\$162,251,147
Plan fiduciary net position	<u>(151,816,631)</u>	<u>(151,816,631)</u>	<u>(151,816,631)</u>
Net pension liability	<u>\$106,767,411</u>	<u>\$48,943,076</u>	<u>\$10,434,516</u>
Plan fiduciary net position as a percentage of the total pension liability	58.71%	75.62%	93.57%
Years of benefit payments:			
Expected for current members:	100	100	100
Paid for with current assets:	14.09	16.94	22.53
City Plus State Contribution Requirement, Plus Expected Employee Contributions			
Dollar Amount	\$13,935,002	\$8,596,925	\$4,487,488
Percent of Payroll	97.45%	60.12%	31.38%

## Required Disclosure Under F.S. 112.664(2)(b)2.

F.S. Section 112.664(2)(b)2. - For the previous five years, beginning with 2013, a side-by-side comparison of the plan's assumed rate of return compared to the actual rate of return, as well as the percentages of cash, equity, bond and alternative investments in the plan portfolio.

<b>Year Ending September 30,</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Assumed rate of return	7.80%	7.80%	7.80%	7.85%	7.90%
Actual rate of return	5.84%	4.07%	10.11%	11.61%	10.13%
Percentages of assets in:					
Cash	2%	3%	4%	4%	2%
Equity	76%	72%	74%	69%	79%
Bond	8%	10%	8%	16%	19%
Alternative	14%	15%	14%	11%	0%
Total	100%	100%	100%	100%	100%



# Section 4 Supplementary Information

## Summary of Participant Data

### Member Statistics

Year Beginning October 1,	2019	2020
<u>Active Participants</u>		
Number	122	132
Average Age	36.6	36.6
Average Credited Service	9.5	9.6
Percent Male	85.3	85.6
Average Salary	\$ 100,420	\$ 98,466
Annualized Payroll for Prior 12 Month Period	\$ 12,251,283	\$ 12,997,532
Total Valuation Salary	\$ 13,090,808	\$ 13,882,964
Payroll Covered in Valuation	\$ 13,090,808	\$ 13,882,964
<u>Terminated With Rights to Deferred Benefits</u>		
Number	0	0
Average Age	0.0	0.0
Percent Male	0.0	0.0
Average Monthly Benefit	\$ 0	\$ 0
<u>DROP</u>		
Number	30	27
Average Age	55.0	55.6
Percent Male	93.3	88.9
Average Monthly Benefit	\$ 6,890	\$ 6,841
DROP Account Balance	\$ 9,555,930	\$ 9,150,813

## Member Statistics (continued)

<b>Year Beginning October 1,</b>	<b>2019</b>	<b>2020</b>
<u>Service Retirements</u>		
Number	90	92
Average Age	62.3	62.9
Percent Male	96.7	96.7
Average Monthly Benefit	\$ 6,172	\$ 6,390
DROP Account Balance	\$ 619,339	\$ 27,849
<u>Beneficiaries</u>		
Number	4	4
Average Age	64.9	65.9
Percent Male	0.0	0.0
Average Monthly Benefit	\$ 3,613	\$ 3,676
<u>Disability Retirements</u>		
Number	8	8
Average Age	61.8	62.8
Percent Male	100.0	100.0
Average Monthly Benefit	\$ 3,724	\$ 3,724
<u>Total In Payment Status</u>		
Number	102	104
Average Age	62.4	63.0
Percent Male	93.1	93.3
Average Monthly Benefit	\$ 5,880	\$ 6,081

Note: Average Monthly Benefits exclude any Supplemental Benefits payable.

## Number of Active Members by Age and Service as of October 1, 2020

Age	Service						Total
	< 1	< 5	< 10	< 15	< 20	< 25	
< 25	3	4					7
< 30	4	11	3				18
< 35	5	7	20	7			39
< 40		2	5	8	8		23
< 45			6	6	10		22
< 50		1	3	5	3	4	16
< 55				3	3	1	7
Total	12	25	37	29	24	5	132

## Active Valuation Pay by Age and Service as of October 1, 2020

Age	Service						Total
	< 1	< 5	< 10	< 15	< 20	< 25	
< 25	45,505	66,748					57,644
< 30	45,505	64,985	77,695				62,775
< 35	45,505	70,471	90,131	117,642			85,819
< 40		74,015	103,961	112,775	138,420		116,408
< 45			98,601	123,032	127,811		118,541
< 50		58,340	91,447	118,548	118,879	157,591	119,526
< 55				121,311	129,185	167,936	131,346
Total	45,505	67,260	92,472	117,950	130,403	159,660	98,466

## Reconciliation of Plan Participants

	<b>Active</b>	<b>Vested</b>	<b>DROP</b>	<b>Retiree</b>	<b>Disability</b>	<b>Beneficiary</b>	<b>Total</b>
<b>As of October 1, 2019</b>	<b>122</b>	<b>0</b>	<b>30</b>	<b>90</b>	<b>8</b>	<b>4</b>	<b>254</b>
Retired			( 4)	4			0
DROP	( 1)		1				0
Term Non-Vest	( 1)						( 1)
Death No Survivor				( 2)			( 2)
New Hires	12						12
<b>As of October 1, 2020</b>	<b>132</b>	<b>0</b>	<b>27</b>	<b>92</b>	<b>8</b>	<b>4</b>	<b>263</b>

## Outline of Plan Provisions

Plan Type: Single-employer Defined Benefit Pension Plan

Plan Administrator: The Board of Trustees

Board Composition: The trustees consist of five members which may include participants who have at least 18 months remaining in the DROP at the time they take office, none who are elected city officials, and who are selected as follows:

- (a) Two members who are elected current members of the plan,
- (b) Two members who are legal residents of the city and current or former city employees who are vested in the Plan, and
- (c) One member chosen by a majority of the previous four members.

Legal Authority: The Plan was established and is amended by local ordinance.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Effective Dates: The Plan was most recently amended by Ordinance No. 124-X-17-B adopted September 12, 2017. This ordinance amended the Plan to (1) remove the value of the Plan's cost-of-living adjustment from the initial determination of Section 415(b) limits effective September 29, 2016 and (2) requires that members receive estimated calculations before retirement or DROP entry to let them know if they are expected to have benefits in excess of Section 415(b) limitations. For members who retired from employment on and after September 29, 2016 the Section 415(b) limit is adjusted annually after retirement as the Internal Revenue Service releases new calendar year limits under Section 415(d).

Prior to this the last amendment to the Plan was Ordinance No. 124-X-16-C effective July 12, 2016.

Plan Year: The 12-month period from October 1<sup>st</sup> to the following September 30<sup>th</sup>.

Member: Full-time firefighters become Members immediately upon hire.

Actuarial Equivalence: Effective April 27, 2010 under Ordinance No. 124-X-10-A, Actuarial Equivalence is based on an 8.0% interest rate, RP-2000 static mortality table (unisex 50/50) projected to 2010 using scale AA. The disabled mortality table is used for disability retirees.

Credited Service: Service with the City as a full-time salaried firefighter where Member contributions are made. Completed months of partial years of service are included in the determination of Credited Service.

Members with at least ten years of service who enter the DROP or retire on or after September 25, 2012 may purchase up to four years of active service in the U.S. Armed Forces or service worked as a full-time firefighter as defined under Florida Statutes section 175.032(8)(a) with another governmental entity prior to employment with the City provided the Member has not received and will not receive a benefit from another retirement plan based on such service. The total combined purchase of prior governmental and military service may not exceed four years. Payment for the purchase must be made in a cash lump sum or a direct transfer of funds from a member's account in the city's 457 plan.

Vesting: 100% upon earning ten years of Credited Service.

Salary: Total actual fixed cash compensation paid yearly for services rendered to the City as a firefighter including regular pay, overtime (limited to 300 hours per year effective October 1, 2012), holiday and other payroll cash incentives and general monthly expense allowances. Lump sum payments of accrued benefits upon termination of employment are not included in Salary. Auto allowances, uniform allowances, mileage and travel reimbursements, and income from private details are not includable in Salary.

Employee Contributions: Employee contribution rates are as follows for members hired before September 25, 2012.

<u>Effective</u>	<u>% of Salary</u>
11/13/2012	10.63%
09/25/2012	9.95%
01/01/2004	10.63% *

\*Any cost sharing provisions in place prior to October 1, 2008 where employees share in contribution increases in excess of 19.2% of budgeted payroll are no longer applicable. Prior to October 1, 2008, Employee Contributions were 10.63% plus 50% of the excess of City contributions over 19.2%.

For Members hired or rehired on or after September 25, 2012, 10.63% of Salary (prior to November 13, 2012 9.0% of Salary).

A Member who terminates non-vested is entitled to refund of accumulated Employee Contributions without interest.

Vested Members who terminate employment prior to being eligible to receive an annuity may leave their accumulated contributions in the fund, and upon Early or Normal Retirement Age begin receipt of pension payments.

Average Final Compensation: Prior to October 1, 2004, average of Salary for the five highest years. Effective October 1, 2004, average of Salary for the three highest consecutive years, or the five highest years out of the last 10 years of Credited Service, whichever is greater.

Normal Retirement Age: For Members hired before September 25, 2012, prior to January 1, 2004, age 50 and completion of at least 10 years of Credited Service. On and after January 1, 2004, the earliest of (i) age 45 and completion of 25 years of Credited Service, (ii) age 48 and completion of 21 years of Credited Service (which may be accelerated one year to age 47 and completion of 20 years of Credited Service), or (iii) age 50 and completion of 10 years of Credited Service.

For Members hired or rehired on or after September 25, 2012, the earlier of (i) age 55 and completion of 10 years of Credited Service or (ii) age 52 and completion of 25 years Credited Service.

Normal Retirement Benefit: The Accrued Benefit.

Accrued Benefit: For Members hired prior to September 25, 2012, prior to January 1, 2004, Members who reached Normal Retirement Age were entitled to a retirement benefit calculated as follows:

4.0% x Average Final Compensation x up to 10 Years Credited Service

Plus

2.0% x Average Final Compensation x for Credited Service over 10 Years

For Members hired prior to September 25, 2012 who retire or terminate employment on or after January 1, 2004 the benefit formula is revised to a maximum of 80% of Average Final Compensation under the following:

3.0% x Average Final Compensation x up to 15 Years Credited Service

Plus

3.5% x Average Final Compensation x for Credited Service from 15 to 25 Years

Any Member who was actively employed on October 1, 2001 and retires or enters the DROP after January 1, 2004 is due a benefit based on the greater of these two benefit formulas. Members who were not employed on October 1, 2001 and hired prior to September 25, 2012 receive a benefit only under the formula in effect January 1, 2004.

For Members hired or rehired on and after September 25, 2012, the Accrued Benefit is defined under the following where no more than 80% of Average Final Compensation is payable:

3.0% x Average Final Compensation x up to 25 Years Credited Service

Plus

1.0% x Average Final Compensation x for Credited Service from 25 to 30 Years

In no event will the Accrued Benefit be less than 2.0% x Average Final Compensation x Credited Service.

Effective October 1, 2004, the Accrued Benefit is payable as a 10 year certain and continuous annuity. Prior to October 1, 2004 the Accrued Benefit was defined payable as a single life annuity.

Early Retirement Age: For Members hired before September 25, 2012, age 47 and completion of at least 10 years of Credited Service. For Members hired or rehired on or after September 25, 2012, age 50 and completion of at least 10 years of Credited Service.

Early Retirement Benefit: For Members hired before September 25, 2012, the Accrued Benefit reduced actuarially from Normal Retirement Age. However, in no event will the reduction for Early Retirement exceed 3% per year by which the commencement of benefits precedes the Normal Retirement Age. For Members hired on or after September 25, 2012, the Accrued Benefit reduced 3% per year by which the commencement of benefits precedes age 55.

Service Incurred Disability Retirement: Members who become totally and permanently disabled as a direct result from the performance of service-related duties to the City are due a benefit commencing on the earlier of (i) the first day of the month coincident with or next following the date of disability, or (ii) the 90<sup>th</sup> day following the day the Member submitted a completed application for disability. Any Plan Member receiving Service Incurred Disability Retirement may elect to convert to Normal or Early Retirement upon meeting all eligibility criteria. Plan Members receiving disability retirement benefits may elect to continue making regular contributions to the Plan, and based on such contributions earn additional service credit toward Normal or Early Retirement benefits.

The amount of the service incurred disability benefit is 75% of the Member's Salary in effect on the date of disability, subject to offsets not more than would reduce the service incurred disability benefit below the greater of the Member's Accrued Benefit or 42% x Average Final Compensation. The applicable offset to the service incurred disability benefit includes any disability benefits paid by workers' compensation (excluding any COLA on these benefits) to the extent permitted by law and to the extent that the total of these benefits exceeds the Member's average periodic wage, subject to annual benefit adjustments. Special rules apply in the case of a lump sum settlement paid by workers' compensation.

The monthly service incurred disability benefit is adjusted annually for persons who first qualify for Service Incurred Disability on or after January 11, 2005, based on the sum of the following components calculated for the previous calendar year:

- (a) The service incurred disability retirement benefit paid from the Plan;
- (b) Worker's compensation disability benefits (excluding medical reimbursements) minus any COLA adjustments since the benefit first went into effect, to the extent permitted by law;
- (c) Any Salary (excluding any sick and vacation pay received from the City pursuant to the disability) received by a Member from the date of disability; and
- (d) Net earnings from self-employment income.

The Service Incurred Disability Retirement benefit is reduced if the Member's pre-disability Salary is less than the sum of the above components. The monthly reduction in the Service Incurred Disability Retirement benefit is 1/12 of (50% of the first \$10,000 in excess plus 100% of the excess which exceeds \$10,000).

If the sum of the four components is less than the Service Incurred Disability Retirement benefit computed prior to any applicable offsets, then the benefit will be increased. The monthly increase in the Service Incurred Disability Retirement benefit is 1/12 of the amount of the Service Incurred Disability Retirement benefit prior to offsets minus the sum of the four components.

Nonservice Incurred Disability Retirement: Members who become totally and permanently disabled not in the line of duty are entitled to Nonservice Incurred Disability Retirement upon earning at least 10 years of Credited Service.

The benefit payable to any Member who becomes totally and permanently disabled not in the line of duty is the Accrued Benefit, not less than 25% of Average Final Compensation. This benefit is payable until the Member recovers, begins receipt of disability benefits from Social Security, dies or reaches his Normal or Early Retirement Age, at which time the Member elects to receive Normal or Early Retirement Benefits in lieu of disability benefits.

Prior to October 1, 2004, there was a maximum Nonservice Incurred Disability Retirement benefit which was 50% of Average Final Compensation.

Death Benefits: The designated beneficiary of a nonvested Member is due a refund of the Employee Contributions without interest. The designated beneficiary of a vested Member who dies prior to retirement is entitled to receive either the refund of Employee Contributions without interest, or an amount equal to the benefit that would have been payable as if the Member terminated on the date of death, survived to the earliest retirement age, retired under the optional form of benefit selected by the Member, and died the next day. If no optional form of benefit was selected then the Death Benefit is payable for a period of 10 years. However, any Member who has attained a vested interest in the Plan and who becomes eligible for retirement and continues to be employed shall be construed to have selected the option which affords the surviving spouse or joint pensioner the greatest amount of benefits.

Optional Forms of Benefit: Effective October 1, 2004, the Accrued Benefit described above is payable in the form of a 10 year certain and continuous annuity. Prior to October 1, 2004, the Accrued Benefit was payable in the form of a single life annuity. Members may optionally choose an actuarially equivalent joint and survivor annuity (with 50%, 66 2/3, 75% or 100% continuance). The joint and survivor option may include an actuarially equivalent "pop-up" feature such that if the Member's joint pensioner predeceases the Member, the survivorship benefit is deemed cancelled and the Member's annuity is recalculated as an actuarially equivalent life annuity effective on the first day of the month following the death of the Member's joint pensioner.

1999 Retirement Incentive Program: Members who, by November 30, 1999, had earned at least 20 years of Credited Service and had reached Normal Retirement Age (then age 50 with 10 years of Credited Service) were eligible to participate in a Retirement Incentive Program by making an election



during a window period of 30 days commencing November 1, 1999. Members who elected to participate were required to terminate employment no later than November 30, 1999 unless they elected to participate in the DROP (where they were required to terminate employment no later than November 30, 2000). The monthly retirement benefit was based on the years of Credited Service and Average Final Compensation on their date of termination or DROP using the benefit formula in effect at that time. Eligible employees who elected this Retirement Incentive Program received, in addition to any other benefits, 18 months of retirement benefits payable at retirement. However, for those who entered the DROP as a part of this Retirement Incentive Program, 18 months of retirement benefit payments were paid into the employee's DROP account at the beginning of the DROP period. Interest was earned in the DROP account at the assumed rate of investment return used for valuation purposes. Under this Retirement Incentive Program, a 2% COLA commenced one year after termination of employment.

2002 Retirement Incentive Program: Members who, by April 15, 2002, were (i) at least age 46 and had completed at least 26 years of Credited Service, or (ii) at least age 50 and had completed at least 10 years of Credited Service, were eligible to participate in the Retirement Incentive Program by making an election during a window period of 30 calendar days commencing February 27, 2002. Members who elected to participate were required to terminate employment no later than April 15, 2002 unless they elected to participate in the DROP (36 months total) or BAC-DROP (up to 18 months reducing the future time in the DROP so no more than 36 months total in BAC-DROP plus the DROP) where they were required to terminate employment no later than April 15, 2005. Members who elected to participate were entitled to unreduced retirement benefits based on the years of Credited Service and Average Final Compensation on their date of retirement using the benefit formula in effect at that time, plus an additional 3% was added to the benefit multiplier. Under the BAC-DROP option, a Member receives a lump sum distribution of up to 18 months of retirement benefits upon entry into the DROP, and the Member's monthly pension is then actuarially reduced to reflect the cost to the Plan for this lump sum distribution. These Members were also eligible to elect an optional COLA.

Note: Any firefighter who retired on or after October 1, 2001 but who is still employed with the City and in the DROP on the date the April 15, 2002 Retirement Incentive Program was adopted may elect by March 28, 2002 to have benefits refigured under the 2002 Retirement Incentive Program.

Deferred Retirement Option Plan (DROP): Effective September 30, 2001, Members are eligible to enter the DROP upon attaining their Normal Retirement Age.

Effective September 25, 2012, the maximum DROP participation duration is 84 months. Members who commenced participation in the DROP on or after October 1, 2010 and who were participating in the DROP on September 25, 2012 were allowed to extend their DROP participation from 72 to 84 months if the Member agreed all DROP account earnings are recomputed retroactively to the date of DROP using an annual interest rate of 6.0%.

Effective June 10, 2008, the maximum DROP participation duration was 72 months where Members participating in the DROP were allowed to extend their DROP participation from 60 to 72 months. Effective January 1, 2004, the maximum DROP participation duration was 60 months where Members participating in the DROP were allowed to extend their DROP participation from 36 to 60 months. Prior to January 1, 2004 the maximum DROP participation was 36 months.

Effective January 1, 2004, Members were allowed to elect to "BAC-DROP" for up to 18 months, which reduced the maximum 60 month (72 month effective June 10, 2008) DROP period by the same amount of time elected under the BAC-DROP. Effective September 25, 2012 Members may elect to "BAC-DROP" for up to 24 months, which reduces the 84 month DROP period by the same amount of time elected under the BAC-DROP. Under the BAC-DROP option, a Member receives a lump sum distribution of up to 18 months (24 effective September 25, 2012) of retirement benefits upon entry into the DROP, and the Member's monthly pension is then actuarially reduced to reflect the cost to the Plan for this lump sum distribution.

Effective January 1, 2004 and prior to May 17, 2005, for every year (or portion thereof) of deferred entry into the DROP after the 12 month period following their "earliest" Normal Retirement Age, the maximum DROP period is reduced by one year. On and after May 17, 2005, Members who elect to participate in the DROP within the first five years following their "earliest" Normal Retirement Age incur no reduction to the maximum 60 month DROP period (72 month effective June 10, 2008 and 84 month effective September 25, 2012) for DROP entry deferral. However, the maximum DROP period is reduced for Members who elect to participate in the DROP beyond five years following their "earliest" Normal Retirement Age. For members hired prior to September 25, 2012, the Normal Retirement Age is the earliest of age 45 with 20 years of service, age 48 with 21 years of service, and age 50 with 10 years of service where age 48 with 21 years of service may be accelerated to age 47 with 20 years of service. Note that age 47 with 20 years of service is not taken into account for the "earliest" Normal Retirement Age for purposes of determination of DROP period reduction.

DROP participants are not eligible for death or disability benefits. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. For DROP entrants prior to September 25, 2012, the Accrued Benefit is accumulated with interest at the same rate as the investment earnings assumption for the funding valuation of the Plan. Effective September 25, 2012, for Members who commenced participation in the DROP on or after October 1, 2010 and elected to extend DROP participation to 84 months (11 such Members) and for new DROP entrants effective September 25, 2012, interest crediting is based on an annual interest rate of 6.0%. No interest is credited after the end of the DROP period.

Cost of Living Adjustment (COLA): Effective September 30, 2001, an annual 2% COLA commences at the end of the 4<sup>th</sup> year following initial receipt of retirement benefits for all Members who reach Early or Normal Retirement Age and begin receipt of benefits (either directly or through the DROP) after September 30, 2001, and the beneficiaries of such Members. Effective January 1, 2004, COLA payments under this provision are deferred 12 months after separation from employment for Members who participate in the DROP for more than 3 years.

Members who retire or terminate employment on or after January 1, 2004 may elect, in lieu of the 2% COLA described above, a 1% annual COLA commencing 12 months after initial receipt of retirement benefits, which would increase to a 2% annual COLA at the end of the 6<sup>th</sup> year following initial receipt of retirement benefits.

COLAs were also payable as part of the Retirement Incentive Programs. See the description of the Retirement Incentive Programs for a description of the associated COLAs.

Ordinance No. 124-X-13-B adopted effective August 13, 2013 increased the annual COLA effective October 1, 2013 to 2.5% commencing at the end of the seventh year following initial receipt of retirement benefits for firefighters who terminate employment and begin receiving normal retirement benefits or enter the DROP on or after October 1, 2010, and the beneficiaries of such members. Note that for DROP members the "initial receipt of retirement benefits" has historically been interpreted to mean the date of DROP.

Supplemental Benefit: Ordinance No. 124-X-09-A adopted October 13, 2009 amended Plan provisions to provide for a Supplemental Benefit for firefighters. Effective October 1, 2009, firefighters who terminate employment and begin receiving normal or early retirement benefits on or after October 1, 2007 receive a Supplemental Benefit payable monthly which is:

- The lesser of [(i) \$25 x Credited Service and (ii) \$500] payable until age 65
- The lesser of [(i) \$15 x Credited Service and (ii) \$300] payable from age 65 for life

This supplemental benefit is not increased for any COLAs defined under the Plan and is only payable after DROP exit (to members who entered the DROP on or after October 1, 2007). Members who terminate employment on or after October 1, 2007 due a deferred vested benefit receive the supplement

upon retirement. Members who retire under disability retirement provisions are not eligible to receive the supplement.

Each retiree's supplemental benefit is determined on an annual basis, and the amount of the supplemental benefit may vary from year to year or the supplemental benefit may be discontinued entirely depending on required benefit increases from the State and available funding.

Share Plan: Ordinance No. 124-X-16-C adopted July 12, 2016 amended Plan provisions to indicate that Chapter 175 contributions received each fiscal year in excess of \$2,055,127 may be used to provide Share Plan benefits.

## Description of Assumptions and Methods

Assumed Rate of Investment Return: 7.7% per year net of investment expenses (changed from 7.8% used in the prior valuation).

Salary Increase – Total Payroll: 3.0% per year

Salary Increase – Individual: The following salary rate increases are assumed:

<u>Service</u>	<u>Rate</u>
0-4	12.00%
5-9	6.00%
10-14	5.50%
15-19	5.25%
>=20	5.00%

Mortality: The mortality table has been changed from the prior valuation. As of October 1, 2020, the mortality table is that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2019 and 2020, as required by state statute.

The following sex distinct tables are used with fully generational mortality improvements using sex distinct Scale MP-2018.

Active:	Male:	PubS.H-2010(B) male employee set forward 1 year
	Female:	PubS.H-2010 female employee set forward 1 year
Healthy Retiree:	Male:	PubS.H-2010(B) male healthy retiree set forward 1 year
	Female:	PubS.H-2010 female healthy retiree set forward 1 year

The following sex distinct tables are used with no mortality improvement projection.

Disabled Retiree:	Male:	80% PubG.H-2010 male disabled retiree + 20% PubS.H-2010 male disabled retiree
	Female:	80% PubG.H-2010 female disabled retiree + 20% PubS.H-2010 female disabled retiree

Juvenile rates are used for ages 15-17.

The active tables reference the healthy retiree rates, above, at ages 80+.

The healthy retiree tables reference the active mortality rates, above, before age 44.

In the prior valuation the mortality table was that used for special risk employees in the valuation of the Florida Retirement System (FRS) as of July 1, 2016, 2017 and 2018, as required by state statute.

Healthy mortality (Pre-retirement):

Males:	10% RP-00 Combined Healthy White Collar + 90% RP-00 Combined Healthy Blue Collar
Females:	100% RP-00 Combined Healthy White Collar
Both male and female rates fully generational using Scale BB	

Healthy mortality (Post-retirement):

Males:	10% RP-00 Annuitant White Collar + 90% RP-00 Annuitant Blue Collar
Females:	100% RP-00 Annuitant White Collar

Both male and female rates fully generational using Scale BB  
 Disabled mortality: Males: 60% RP-00 Disabled Retiree Set Back 4 Years +  
 40% RP-00 Annuitant White Collar  
 Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs +  
 40% RP-00 Annuitant White Collar  
 No mortality improvement is assumed for disabled lives.

Retirement: For Members hired prior to September 25, 2012, unisex rates, as follows:

Age	Service From					
	10-13	14-19	20-23	24	25-29	30+
<=44	0%	0%	0%	0%	0%	0%
45-46	0%	0%	0%	0%	60%	100%
47-49	0%	0%	20%	60%	60%	100%
50-54	10%	10%	20%	20%	20%	100%
55-59	20%	100%	100%	100%	100%	100%
60+	100%	100%	100%	100%	100%	100%

For Members hired on or after September 25, 2012, unisex rates, as follows:

Age	Service From				
	10	11-24	25	26-29	30+
<=49	0%	0%	0%	0%	0%
50	10%	10%	10%	10%	100%
51	10%	0%	0%	0%	100%
52	10%	0%	100%	100%	100%
53	10%	0%	100%	100%	100%
54	10%	0%	100%	100%	100%
55+	100%	100%	100%	100%	100%

Disability: Unisex rates, as follows:

Age	Probability	Age	Probability	Age	Probability	Age	Probability
15-20	0.140%	30	0.180%	40	0.300%	50	1.000%
21	0.142%	31	0.190%	41	0.342%	51	1.110%
22	0.144%	32	0.200%	42	0.384%	52	1.220%
23	0.146%	33	0.210%	43	0.426%	53	1.330%
24	0.148%	34	0.220%	44	0.468%	54	1.440%
25	0.150%	35	0.230%	45	0.510%	55	1.550%
26	0.156%	36	0.244%	46	0.608%	56	1.660%
27	0.162%	37	0.258%	47	0.706%	57	1.770%
28	0.168%	38	0.272%	48	0.804%	58	1.880%
29	0.174%	39	0.286%	49	0.902%	59	1.990%
						60+	0.000%

75% of disabilities are assumed to be service connected.

Termination: As follows:

<u>Service</u>	<u>Rate</u>
0-1	18.00%
2-5	8.00%
6-9	2.25%
10-19	1.75%
20+	0.00%

Plan Expenses: The prior year administrative expense is added to the normal cost.

Marital Assumption: 80% of males are assumed married and 50% of females are assumed married. Husbands are assumed to be four years older than wives.

Funding Method: Entry Age (level percent of salary)

A description of the funding method is found on the next page entitled "Glossary of Actuarial Terms."

## Glossary of Actuarial Terms

Present Value of Benefits (PVB): The present value, as of the valuation date, of all benefits that will become payable by the Plan for the current group of members in the census.

Normal Cost (NC): Under the Individual Entry Age Normal Cost Method, the annual normal cost for each individual active member is determined as the amount, from the date of employment to the date of retirement, sufficient to accumulate the value of the member's benefit at the time of retirement. The annual normal cost is a constant percentage of the member's projected covered pay.

Accrued Liability (AL): This is the portion of the PVB attributable to the past at the valuation date. For active members, AL is the annual NC accumulated from date of entry to the valuation date for each member. For retired and terminated members, the PVB and the AL are equal. The AL is the estimated liability owed by the pension fund at the valuation date.

Unfunded Accrued Liability (UAL): Any excess of the Accrued Liability over the fund assets. A negative UAL indicates fund assets are greater than the Accrued Liability, otherwise known as a surplus. Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Actuarial Value of Assets: The value of assets used in the actuarial valuation of the Plan which is compared to the AL to determine the UAL and minimum funding requirements. A method may be used to smooth out short term volatility in the fair market value of assets. In this valuation, the Actuarial Value of Assets has been calculated to smooth out unexpected fluctuations in the fair market value of assets over a 5-year period, less any reserve of State contributions.



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# City of Sunrise

# Firefighters' Retirement Plan

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## GASB 67 Supplement As of September 30, 2020



REPORT TO PROVIDE DISCLOSURES UNDER GASB STATEMENT NO. 67  
FOR THE PLAN FISCAL YEAR ENDING  
SEPTEMBER 30, 2020







January 11, 2021

Board of Trustees  
City of Sunrise Firefighters' Retirement Plan  
Sunrise, Florida

**RE: GASB 67 Supplement as of September 30, 2020**

Dear Board Members:

We are pleased to present the Governmental Accounting Standards Board Statements No. 67 (GASB 67) Supplement as of September 30, 2020 for the City of Sunrise (the City) Firefighters' Retirement Plan (the Plan). This report is a supplement to the actuarial valuation report as of October 1, 2019. Please see the actuarial valuation report as of October 1, 2019 for the assessment and disclosure of risk in a pension funding valuation as described in Actuarial Standard of Practice No. 51 (ASOP 51) and other required disclosures.

In producing our work product, we rely on various models, internal and external, which were used for their intended purposes. Underlying data, assumptions, methodologies, model inputs and resulting outputs have been reviewed. The 7.8% assumed net return is a prescribed assumption as defined by Actuarial Standard of Practice No. 27 (ASOP 27), as it is set by the Board. While we find all other inputs and outputs to be reasonable, the prescribed assumption significantly conflicts with our judgment regarding what would constitute a reasonable assumption for the purpose of the measurement as discussed in ASOP 27. We continue to recommend lowering the net assumed return.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report provides information required to be disclosed under GASB 67 as described in the statement and the implementation guide. The relevant dates are as follows:

**GASB 67**

Valuation Date	10/01/2019
Measurement Date	09/30/2020
Reporting Date	09/30/2020

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Please let us know if you have any questions or need additional information.

Sincerely,



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## Statement of Fiduciary Net Position

As of September 30,	2020	Revised 2019	2019
<b>Assets</b>			
Receivables and prepaid expenses:			
Interest and dividends	\$176,525	\$202,889	\$202,889
Employee contributions	57,216	48,083	47,047
Pending trades receivable	<u>97,138</u>	<u>280,087</u>	<u>280,087</u>
Total receivables	<u>330,879</u>	<u>531,059</u>	<u>530,023</u>
Investments, at fair value:			
Money market funds	3,090,846	3,674,298	3,674,298
U.S. government bonds and notes	1,073,099	3,962,155	3,962,155
U.S. government agency securities	0	288,341	288,341
Taxable municipal bonds	642,635	0	0
Mortgage-backed securities	5,900,834	5,380,489	5,380,489
Corporate obligations	5,160,619	3,883,933	3,883,933
Common stock	57,091,181	52,286,836	52,286,836
International equity mutual funds	9,945,568	9,522,760	9,522,760
Collective investment funds	47,328,557	45,581,266	45,581,266
Commingled real estate funds	<u>21,687,051</u>	<u>21,508,488</u>	<u>21,508,488</u>
Total investments	<u>151,920,390</u>	<u>146,088,566</u>	<u>146,088,566</u>
Total assets	<u>152,251,269</u>	<u>146,619,625</u>	<u>146,618,589</u>
<b>Liabilities</b>			
Accounts payable	152,507	106,479	106,479
Pending trades payable	<u>282,131</u>	<u>262,806</u>	<u>262,806</u>
Total liabilities	<u>434,638</u>	<u>369,285</u>	<u>369,285</u>
<b>Net position restricted for pensions</b>	<u>\$151,816,631</u>	<u>\$146,250,340</u>	<u>\$146,249,304</u>

Note: We have shown information for the year ending September 30, 2019 as shown in our prior year report and revised as provided by the auditor at the same time information as of September 30, 2020 was provided.

## Statement of Changes in Fiduciary Net Position

<b>As of September 30,</b>	<b>2019</b>	<b>Revised 2019</b>	<b>2019</b>
<b>Additions</b>			
Contributions:			
Employer	\$6,300,844	\$6,279,661	\$6,279,661
State of Florida	861,888	821,826	821,826
Employees	<u>1,401,623</u>	<u>1,341,475</u>	<u>1,340,439</u>
Total contributions	<u>8,564,355</u>	<u>8,442,962</u>	<u>8,441,926</u>
Investment income (loss):			
Net (depreciation) appreciation in fair value of investments	6,682,462	3,797,398	3,797,398
Interest and dividends	2,618,753	2,835,967	2,835,967
Other income	<u>5,680</u>	<u>11,158</u>	<u>11,158</u>
Total investment income	<u>9,306,895</u>	<u>6,644,523</u>	<u>6,644,523</u>
Less investment expenses:			
Investment expense	<u>689,967</u>	<u>704,670</u>	<u>704,670</u>
Net investment income	<u>8,616,928</u>	<u>5,939,853</u>	<u>5,939,853</u>
Total additions	<u>17,181,283</u>	<u>14,382,815</u>	<u>14,381,779</u>
<b>Deductions</b>			
Participant benefit payments	11,463,643	14,163,770	14,163,770
Refunds of participant contributions	0	6,194	6,194
Administrative expenses	<u>151,349</u>	<u>199,780</u>	<u>199,780</u>
Total deductions	<u>11,614,992</u>	<u>14,369,744</u>	<u>14,369,744</u>
<b>Net increase in net position</b>	5,566,291	13,071	12,035
<b>Net position restricted for pensions</b>			
Beginning of year	<u>146,250,340</u>	<u>146,237,269</u>	<u>146,237,269</u>
End of year	<u>\$151,816,631</u>	<u>\$146,250,340</u>	<u>\$146,249,304</u>

Note: We have shown information for the year ending September 30, 2019 as shown in our prior year report and revised as provided by the auditor at the same time information as of September 30, 2020 was provided.



## Net Pension Liability

The total pension liability under GASB 67 is based on the October 1, 2019 actuarial valuation updated to the September 30, 2020 measurement date. The following actuarial assumptions are applied to all periods included in the measurement.

Inflation:	2.5%
Salary increases:	12.0% to 5.0%, including inflation
Investment return:	7.8% net of investment expense, including inflation
Mortality:	From July 1, 2016, 2017 & 2018 FRS special risk actuarial valuations:
Healthy mortality (Pre-retirement):	
	Males: 10% RP-00 Combined Healthy White Collar + 90% RP-00 Combined Healthy Blue Collar
	Females: 100% RP-00 Combined Healthy White Collar
	Both male and female rates fully generational using Scale BB
Healthy mortality (Post-retirement):	
	Males: 10% RP-00 Annuitant White Collar + 90% RP-00 Annuitant Blue Collar
	Females: 100% RP-00 Annuitant White Collar
	Both male and female rates fully generational using Scale BB
Disabled mortality:	
	Males: 60% RP-00 Disabled Retiree Set Back 4 Years + 40% RP-00 Annuitant White Collar
	Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs + 40% RP-00 Annuitant White Collar
	No mortality improvement is assumed for disabled lives.

Assumptions are based on the results of a 5-year actuarial experience study as of October 1, 2014. See the paragraph entitled "Assumptions" on page 4 of the October 1, 2017 actuarial valuation report for details.

The long-term expected net rate of return on investments for the October 1, 2019 actuarial valuation was determined using a building-block method. Best-estimate ranges of expected future real rates of return (expected returns net of investment expense and inflation) are developed for each major asset class. The long-term expected net rate of return on investments is the best-estimate ranges weighted by the asset allocation plus expected inflation. Best estimates of arithmetic real rates of return for each major asset class as provided by the investment monitor are shown in the following table:

Investment Category	Target Allocation	Long Term Real Annualized Return*
Large Cap	32%	5.4%
Mid Cap	8%	8.9%
Small Cap	10%	7.0%
Int'l Developed	12%	3.0%
Emerging Markets	3%	8.2%
Real Estate	15%	6.8%
Fixed Income	<u>20%</u>	2.7%
	100%	
Weighted Average Long Term Real Annualized Return =		5.2%



\*For illustrative purposes, historical long term (20 year) arithmetic average returns provided by the investment monitor have been used as a reasonable expectation of returns.

The expected rate of inflation reported by the investment monitor is 2.2%.

Note, however, that long-term expected net rates of return for actuarial valuations should be compared to geometric returns. Based on the above information provided by the investment monitor as of September 30, 2019, the 7.8% discount rate used to measure the total pension liability is not achievable.

The discount rate used to measure the total pension liability was 7.8%. This is the single rate that reflects the long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits. A projection of cash flows used to determine the discount rate assumed that plan member contributions are made at the current contribution rate and that City contributions will be made equal to the difference between the actuarially determined contribution and the member contributions. Based on those assumptions, the pension plan's fiduciary net position is projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments is applied to all periods of projected benefit payments to determine the total pension liability. For purposes of this determination we understand pension plan assets are expected to be invested using a strategy to achieve the discount rate.

Note: See "Actuarial Assumptions and Methods" for a full description of the assumptions used in the determination of the total pension liability.

For GASB 67 the net pension liability is required to be measured as of the plan's fiscal year end. The net pension liability was measured as of September 30, 2020 under GASB 67 for the plan's fiscal year ending September 30, 2020. The total pension liability used to calculate the net pension liability as of September 30, 2020 was rolled forward from the actuarial valuation as of October 1, 2019.

The components of the net pension liability at September 30, 2020 were as follows.

<b>Measurement Date September 30,</b>	<b>2020</b>
Total pension liability	\$206,874,991
Plan fiduciary net position	<u>(151,816,631)</u>
Net pension liability	<u>\$55,058,360</u>
Plan fiduciary net position as a % of the total pension liability	73.39%

Sensitivity of the net pension liability to changes in the discount rate follows.

	<b>Measurement Date September 30, 2020</b>		
	1% Decrease (6.8%)	Current Discount Rate (7.8%)	1% Increase (8.8%)
Net pension liability	\$82,255,696	\$55,058,360	\$32,986,658

## Schedule of Changes in Net Pension Liability and Related Ratios

Year Ending September 30,	2020	Revised 2019	2019	2018	2017	2016	2015	2014
<b>Total pension liability</b>								
Service cost	\$3,766,990	\$3,618,905	\$3,618,905	\$3,649,483	\$3,389,400	\$3,217,784	\$3,090,913	\$3,007,593
Interest	15,338,191	14,934,297	14,934,337	14,426,543	13,694,521	12,568,229	12,023,905	11,602,371
Changes of benefit terms	0	0	0	0	432,669	0	0	0
Differences between expected and actual experience	(652,093)	1,076,608	1,076,608	231,072	1,152,743	(728,503)	0	(1,492,632)
Changes of assumptions	0	0	0	1,196,786	4,703,070	1,643,838	0	172,854
Benefit payments	(11,463,643)	(14,163,770)	(14,163,770)	(10,960,320)	(6,456,401)	(6,437,587)	(8,093,516)	(7,121,213)
Contribution refunds	<u>0</u>	<u>(6,194)</u>	<u>(6,194)</u>	<u>0</u>	<u>(6,743)</u>	<u>(63,852)</u>	<u>0</u>	<u>0</u>
<b>Net change in total pension liability</b>	6,989,445	5,459,846	5,459,886	8,543,564	16,909,259	10,199,909	7,021,302	6,168,973
<b>Total pension liability - beginning</b>	<u>199,885,546</u>	<u>194,425,660</u>	<u>194,425,660</u>	<u>185,882,096</u>	<u>168,972,837</u>	<u>158,772,928</u>	<u>151,751,626</u>	<u>145,582,653</u>
<b>Total pension liability - ending (a)</b>	\$206,874,991	\$199,885,506	\$199,885,546	\$194,425,660	\$185,882,096	\$168,972,837	\$158,772,928	\$151,751,626
<b>Plan fiduciary net position</b>								
Contributions - employer	\$6,300,844	\$6,279,661	\$6,279,661	\$6,027,609	\$5,483,453	\$5,185,357	\$5,225,550	\$4,972,033
Contributions - State of Florida	861,888	821,826	821,826	763,749	766,995	803,419	853,244	879,470
Contributions - employee	1,401,623	1,341,475	1,340,439	1,244,670	1,288,279	1,338,474	1,156,746	1,125,192
Net investment income	8,616,928	5,939,853	5,939,853	13,810,392	14,302,330	11,249,228	176,272	10,639,774
Benefit payments	(11,463,643)	(14,163,770)	(14,163,770)	(10,960,320)	(6,456,401)	(6,437,587)	(8,093,516)	(7,121,213)
Contribution refunds	0	(6,194)	(6,194)	0	(6,743)	(63,852)	0	0
Administrative expense	(151,349)	(199,780)	(199,780)	(197,469)	(220,292)	(210,821)	(162,815)	(160,042)
Other	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Net change in plan fiduciary net position</b>	5,566,291	13,071	12,035	10,688,631	15,157,621	11,864,218	(844,519)	10,335,214
<b>Plan fiduciary net position - beginning</b>	<u>146,250,340</u>	<u>146,237,269</u>	<u>146,237,269</u>	<u>135,548,638</u>	<u>120,391,017</u>	<u>108,526,799</u>	<u>109,371,318</u>	<u>99,036,104</u>
<b>Plan fiduciary net position - ending (b)</b>	\$151,816,631	\$146,250,340	\$146,249,304	\$146,237,269	\$135,548,638	\$120,391,017	\$108,526,799	\$109,371,318
<b>Net pension liability - ending (a) - (b)</b>	\$55,058,360	\$53,635,166	\$53,636,242	\$48,188,391	\$50,333,458	\$48,581,820	\$50,246,129	\$42,380,308
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	73.39 %	73.17 %	73.17 %	75.22 %	72.92 %	71.25 %	68.35 %	72.07 %
<b>Expected covered employee payroll</b>	\$13,099,674	\$12,564,427	\$12,564,427	\$11,728,068	\$12,036,803	\$11,680,780	\$10,816,447	\$10,555,759
<b>Net pension liability as a percentage of covered employee payroll</b>	420.30 %	426.88 %	426.89 %	410.88 %	418.16 %	415.91 %	464.53 %	401.49 %

**Notes to Schedule:** The total pension liability as of September 30, 2014 and as of September 30, 2015 are based on an actuarial valuation as of October 1, 2014. The total pension liability as of September 30, 2016, 2017, 2018, 2019 and 2020 are based on an actuarial valuation as of October 1, 2015, 2016, 2017, 2018 and 2019 respectively. See the section entitled "Assumptions and Methods" for a description of changed assumptions.

## Schedule of Contributions

Year Ending September 30,	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	\$7,162,732	\$7,101,487	\$6,791,358	\$6,250,448	\$5,988,776	\$6,078,794	\$5,851,503	\$5,064,882	\$4,579,306	\$3,962,222
Contributions in relation to the actuarially determined contribution	<u>7,162,732</u>	<u>7,101,487</u>	<u>6,791,358</u>	<u>6,250,448</u>	<u>5,988,776</u>	<u>6,078,794</u>	<u>5,851,503</u>	<u>5,064,882</u>	<u>4,579,306</u>	<u>3,962,222</u>
Contribution deficiency (excess)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Covered-employee payroll	\$13,099,674	\$12,564,427	\$11,728,068	\$12,036,803	\$11,680,780	\$10,816,447	\$10,555,759	\$10,414,292	\$10,421,396	\$10,725,059
Contributions as a percentage of covered-employee payroll	54.68 %	56.52 %	57.91 %	51.93 %	51.27 %	56.20 %	55.43 %	48.63 %	43.94 %	36.94 %

### Notes to Schedule

Actuarially determined contributions are calculated based on the valuation as of the beginning of the year prior to the fiscal year in which contributions are due.

Methods and assumptions used to determine contributions for the year ending September 30, 2020:

Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	25 years
Asset valuation method	5-year smoothed market
Inflation	2.5 %
Salary increases	12% to 5%, including inflation
Investment rate of return	7.8%, net of investment expenses, including inflation
Retirement age	See "Description of Assumptions and Methods" for the assumed retirement age assumption
Mortality	Mortality rates as used in the actuarial valuation of the Florida Retirement System for special risk, as required by state statute.

## Schedule of Investment Returns

<b>Year Ending September 30,</b>	<b>Annual money-weighted rate of return net of investment expense</b>
2020	6.3 %
2019	4.5 %
2018	10.3 %
2017	11.8 %
2016	10.4 %
2015	0.5 %
2014	10.5 %
2013	16.0 %
2012	19.4 %
2011	1.5 %

## Plan Membership Statistics

<b>Year Beginning October 1,</b>	<b>2019</b>	<b>2018</b>
Inactive members or beneficiaries currently receiving benefits	132	129
Inactive members entitled to but not yet receiving benefits	0	0
Active members	<u>122</u>	<u>114</u>
Total number of members	<u>254</u>	<u>243</u>

## Plan Description

This is a description of the Plan provisions used to create the October 1, 2019 actuarial valuation of the Plan.

Plan Type: Single-employer Defined Benefit Pension Plan

Plan Administrator: The Board of Trustees

Board Composition: The trustees consist of five members which may include participants who have at least 18 months remaining in the DROP at the time they take office, none who are elected city officials, and who are selected as follows:

- (a) Two members who are elected current members of the plan,
- (b) Two members who are legal residents of the city and current or former city employees who are vested in the Plan, and
- (c) One member chosen by a majority of the previous four members.

Legal Authority: The Plan was established and is amended by local ordinance.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Effective Dates: The Plan was most recently amended by Ordinance No. 124-X-17-B adopted September 12, 2017. This ordinance amended the Plan to (1) remove the value of the Plan's cost-of-living adjustment from the initial determination of Section 415(b) limits effective September 29, 2016 and (2) requires that members receive estimated calculations before retirement or DROP entry to let them know if they are expected to have benefits in excess of Section 415(b) limitations. For members who retired from employment on and after September 29, 2016 the Section 415(b) limit is adjusted annually after retirement as the Internal Revenue Service releases new calendar year limits under Section 415(d).

Prior to this the last amendment to the Plan was Ordinance No. 124-X-16-C effective July 12, 2016.

Plan Year: The 12-month period from October 1<sup>st</sup> to the following September 30<sup>th</sup>.

Member: Full-time firefighters become Members immediately upon hire.

Actuarial Equivalence: Effective April 27, 2010 under Ordinance No. 124-X-10-A, Actuarial Equivalence is based on an 8.0% interest rate, RP-2000 static mortality table (unisex 50/50) projected to 2010 using scale AA. The disabled mortality table is used for disability retirees.

Credited Service: Service with the City as a full-time salaried firefighter where Member contributions are made. Completed months of partial years of service are included in the determination of Credited Service.

Members with at least ten years of service who enter the DROP or retire on or after September 25, 2012 may purchase up to four years of active service in the U.S. Armed Forces or service worked as a full-time firefighter as defined under Florida Statutes section 175.032(8)(a) with another governmental entity prior to employment with the City provided the Member has not received and will not receive a benefit from another retirement plan based on such service. The total combined purchase of prior governmental

and military service may not exceed four years. Payment for the purchase must be made in a cash lump sum or a direct transfer of funds from a member's account in the city's 457 plan.

Vesting: 100% upon earning ten years of Credited Service.

Salary: Total actual fixed cash compensation paid yearly for services rendered to the City as a firefighter including regular pay, overtime (limited to 300 hours per year effective October 1, 2012), holiday and other payroll cash incentives and general monthly expense allowances. Lump sum payments of accrued benefits upon termination of employment are not included in Salary. Auto allowances, uniform allowances, mileage and travel reimbursements, and income from private details are not includable in Salary.

Employee Contributions: Employee contribution rates are as follows for members hired before September 25, 2012.

<u>Effective</u>	<u>% of Salary</u>
11/13/2012	10.63%
09/25/2012	9.95%
01/01/2004	10.63% *

\*Any cost sharing provisions in place prior to October 1, 2008 where employees share in contribution increases in excess of 19.2% of budgeted payroll are no longer applicable. Prior to October 1, 2008, Employee Contributions were 10.63% plus 50% of the excess of City contributions over 19.2%.

For Members hired or rehired on or after September 25, 2012, 10.63% of Salary (prior to November 13, 2012 9.0% of Salary).

A Member who terminates non-vested is entitled to refund of accumulated Employee Contributions without interest.

Vested Members who terminate employment prior to being eligible to receive an annuity may leave their accumulated contributions in the fund, and upon Early or Normal Retirement Age begin receipt of pension payments.

Average Final Compensation: Prior to October 1, 2004, average of Salary for the five highest years. Effective October 1, 2004, average of Salary for the three highest consecutive years, or the five highest years out of the last 10 years of Credited Service, whichever is greater.

Normal Retirement Age: For Members hired before September 25, 2012, prior to January 1, 2004, age 50 and completion of at least 10 years of Credited Service. On and after January 1, 2004, the earliest of (i) age 45 and completion of 25 years of Credited Service, (ii) age 48 and completion of 21 years of Credited Service (which may be accelerated one year to age 47 and completion of 20 years of Credited Service), or (iii) age 50 and completion of 10 years of Credited Service.

For Members hired or rehired on or after September 25, 2012, the earlier of (i) age 55 and completion of 10 years of Credited Service or (ii) age 52 and completion of 25 years Credited Service.

Normal Retirement Benefit: The Accrued Benefit.

Accrued Benefit: For Members hired prior to September 25, 2012, prior to January 1, 2004, Members who reached Normal Retirement Age were entitled to a retirement benefit calculated as follows:

$$4.0\% \times \text{Average Final Compensation} \times \text{up to 10 Years Credited Service}$$



Plus

2.0% x Average Final Compensation x for Credited Service over 10 Years

For Members hired prior to September 25, 2012 who retire or terminate employment on or after January 1, 2004 the benefit formula is revised to a maximum of 80% of Average Final Compensation under the following:

3.0% x Average Final Compensation x up to 15 Years Credited Service

Plus

3.5% x Average Final Compensation x for Credited Service from 15 to 25 Years

Any Member who was actively employed on October 1, 2001 and retires or enters the DROP after January 1, 2004 is due a benefit based on the greater of these two benefit formulas. Members who were not employed on October 1, 2001 and hired prior to September 25, 2012 receive a benefit only under the formula in effect January 1, 2004.

For Members hired or rehired on and after September 25, 2012, the Accrued Benefit is defined under the following where no more than 80% of Average Final Compensation is payable:

3.0% x Average Final Compensation x up to 25 Years Credited Service

Plus

1.0% x Average Final Compensation x for Credited Service from 25 to 30 Years

In no event will the Accrued Benefit be less than 2.0% x Average Final Compensation x Credited Service.

Effective October 1, 2004, the Accrued Benefit is payable as a 10 year certain and continuous annuity. Prior to October 1, 2004 the Accrued Benefit was defined payable as a single life annuity.

Early Retirement Age: For Members hired before September 25, 2012, age 47 and completion of at least 10 years of Credited Service. For Members hired or rehired on or after September 25, 2012, age 50 and completion of at least 10 years of Credited Service.

Early Retirement Benefit: For Members hired before September 25, 2012, the Accrued Benefit reduced actuarially from Normal Retirement Age. However, in no event will the reduction for Early Retirement exceed 3% per year by which the commencement of benefits precedes the Normal Retirement Age. For Members hired on or after September 25, 2012, the Accrued Benefit reduced 3% per year by which the commencement of benefits precedes age 55.

Service Incurred Disability Retirement: Members who become totally and permanently disabled as a direct result from the performance of service-related duties to the City are due a benefit commencing on the earlier of (i) the first day of the month coincident with or next following the date of disability, or (ii) the 90<sup>th</sup> day following the day the Member submitted a completed application for disability. Any Plan Member receiving Service Incurred Disability Retirement may elect to convert to Normal or Early Retirement upon meeting all eligibility criteria. Plan Members receiving disability retirement benefits may elect to continue making regular contributions to the Plan, and based on such contributions earn additional service credit toward Normal or Early Retirement benefits.

The amount of the service incurred disability benefit is 75% of the Member's Salary in effect on the date of disability, subject to offsets not more than would reduce the service incurred disability benefit below the greater of the Member's Accrued Benefit or 42% x Average Final Compensation. The applicable offset to the service incurred disability benefit includes any disability benefits paid by workers'

compensation (excluding any COLA on these benefits) to the extent permitted by law and to the extent that the total of these benefits exceeds the Member's average periodic wage, subject to annual benefit adjustments. Special rules apply in the case of a lump sum settlement paid by workers' compensation.

The monthly service incurred disability benefit is adjusted annually for persons who first qualify for Service Incurred Disability on or after January 11, 2005, based on the sum of the following components calculated for the previous calendar year:

- (a) The service incurred disability retirement benefit paid from the Plan;
- (b) Worker's compensation disability benefits (excluding medical reimbursements) minus any COLA adjustments since the benefit first went into effect, to the extent permitted by law;
- (c) Any Salary (excluding any sick and vacation pay received from the City pursuant to the disability) received by a Member from the date of disability; and
- (d) Net earnings from self-employment income.

The Service Incurred Disability Retirement benefit is reduced if the Member's pre-disability Salary is less than the sum of the above components. The monthly reduction in the Service Incurred Disability Retirement benefit is 1/12 of (50% of the first \$10,000 in excess plus 100% of the excess which exceeds \$10,000).

If the sum of the four components is less than the Service Incurred Disability Retirement benefit computed prior to any applicable offsets, then the benefit will be increased. The monthly increase in the Service Incurred Disability Retirement benefit is 1/12 of the amount of the Service Incurred Disability Retirement benefit prior to offsets minus the sum of the four components.

Nonservice Incurred Disability Retirement: Members who become totally and permanently disabled not in the line of duty are entitled to Nonservice Incurred Disability Retirement upon earning at least 10 years of Credited Service.

The benefit payable to any Member who becomes totally and permanently disabled not in the line of duty is the Accrued Benefit, not less than 25% of Average Final Compensation. This benefit is payable until the Member recovers, begins receipt of disability benefits from Social Security, dies or reaches his Normal or Early Retirement Age, at which time the Member elects to receive Normal or Early Retirement Benefits in lieu of disability benefits.

Prior to October 1, 2004, there was a maximum Nonservice Incurred Disability Retirement benefit which was 50% of Average Final Compensation.

Death Benefits: The designated beneficiary of a nonvested Member is due a refund of the Employee Contributions without interest. The designated beneficiary of a vested Member who dies prior to retirement is entitled to receive either the refund of Employee Contributions without interest, or an amount equal to the benefit that would have been payable as if the Member terminated on the date of death, survived to the earliest retirement age, retired under the optional form of benefit selected by the Member, and died the next day. If no optional form of benefit was selected then the Death Benefit is payable for a period of 10 years. However, any Member who has attained a vested interest in the Plan and who becomes eligible for retirement and continues to be employed shall be construed to have selected the option which affords the surviving spouse or joint pensioner the greatest amount of benefits.

Optional Forms of Benefit: Effective October 1, 2004, the Accrued Benefit described above is payable in the form of a 10 year certain and continuous annuity. Prior to October 1, 2004, the Accrued Benefit was payable in the form of a single life annuity. Members may optionally choose an actuarially equivalent joint and survivor annuity (with 50%, 66 2/3, 75% or 100% continuance). The joint and survivor option may include an actuarially equivalent "pop-up" feature such that if the Member's joint pensioner predeceases the Member, the survivorship benefit is deemed cancelled and the Member's annuity is recalculated as an actuarially equivalent life annuity effective on the first day of the month following the death of the Member's joint pensioner.

1999 Retirement Incentive Program: Members who, by November 30, 1999, had earned at least 20 years of Credited Service and had reached Normal Retirement Age (then age 50 with 10 years of Credited Service) were eligible to participate in a Retirement Incentive Program by making an election during a window period of 30 days commencing November 1, 1999. Members who elected to participate were required to terminate employment no later than November 30, 1999 unless they elected to participate in the DROP (where they were required to terminate employment no later than November 30, 2000). The monthly retirement benefit was based on the years of Credited Service and Average Final Compensation on their date of termination or DROP using the benefit formula in effect at that time. Eligible employees who elected this Retirement Incentive Program received, in addition to any other benefits, 18 months of retirement benefits payable at retirement. However, for those who entered the DROP as a part of this Retirement Incentive Program, 18 months of retirement benefit payments were paid into the employee's DROP account at the beginning of the DROP period. Interest was earned in the DROP account at the assumed rate of investment return used for valuation purposes. Under this Retirement Incentive Program, a 2% COLA commenced one year after termination of employment.

2002 Retirement Incentive Program: Members who, by April 15, 2002, were (i) at least age 46 and had completed at least 26 years of Credited Service, or (ii) at least age 50 and had completed at least 10 years of Credited Service, were eligible to participate in the Retirement Incentive Program by making an election during a window period of 30 calendar days commencing February 27, 2002. Members who elected to participate were required to terminate employment no later than April 15, 2002 unless they elected to participate in the DROP (36 months total) or BAC-DROP (up to 18 months reducing the future time in the DROP so no more than 36 months total in BAC-DROP plus the DROP) where they were required to terminate employment no later than April 15, 2005. Members who elected to participate were entitled to unreduced retirement benefits based on the years of Credited Service and Average Final Compensation on their date of retirement using the benefit formula in effect at that time, plus an additional 3% was added to the benefit multiplier. Under the BAC-DROP option, a Member receives a lump sum distribution of up to 18 months of retirement benefits upon entry into the DROP, and the Member's monthly pension is then actuarially reduced to reflect the cost to the Plan for this lump sum distribution. These Members were also eligible to elect an optional COLA.

Note: Any firefighter who retired on or after October 1, 2001 but who is still employed with the City and in the DROP on the date the April 15, 2002 Retirement Incentive Program was adopted may elect by March 28, 2002 to have benefits refigured under the 2002 Retirement Incentive Program.

Deferred Retirement Option Plan (DROP): Effective September 30, 2001, Members are eligible to enter the DROP upon attaining their Normal Retirement Age.

Effective September 25, 2012, the maximum DROP participation duration is 84 months. Members who commenced participation in the DROP on or after October 1, 2010 and who were participating in the DROP on September 25, 2012 were allowed to extend their DROP participation from 72 to 84 months if the Member agreed all DROP account earnings are recomputed retroactively to the date of DROP using an annual interest rate of 6.0%.

Effective June 10, 2008, the maximum DROP participation duration was 72 months where Members participating in the DROP were allowed to extend their DROP participation from 60 to 72 months. Effective January 1, 2004, the maximum DROP participation duration was 60 months where Members participating in the DROP were allowed to extend their DROP participation from 36 to 60 months. Prior to January 1, 2004 the maximum DROP participation was 36 months.

Effective January 1, 2004, Members were allowed to elect to "BAC-DROP" for up to 18 months, which reduced the maximum 60 month (72 month effective June 10, 2008) DROP period by the same amount of time elected under the BAC-DROP. Effective September 25, 2012 Members may elect to "BAC-DROP" for up to 24 months, which reduces the 84 month DROP period by the same amount of time elected under the BAC-DROP. Under the BAC-DROP option, a Member receives a lump sum distribution of up to 18 months (24 effective September 25, 2012) of retirement benefits upon entry into

the DROP, and the Member's monthly pension is then actuarially reduced to reflect the cost to the Plan for this lump sum distribution.

Effective January 1, 2004 and prior to May 17, 2005, for every year (or portion thereof) of deferred entry into the DROP after the 12 month period following their "earliest" Normal Retirement Age, the maximum DROP period is reduced by one year. On and after May 17, 2005, Members who elect to participate in the DROP within the first five years following their "earliest" Normal Retirement Age incur no reduction to the maximum 60 month DROP period (72 month effective June 10, 2008 and 84 month effective September 25, 2012) for DROP entry deferral. However, the maximum DROP period is reduced for Members who elect to participate in the DROP beyond five years following their "earliest" Normal Retirement Age. For members hired prior to September 25, 2012, the Normal Retirement Age is the earliest of age 45 with 20 years of service, age 48 with 21 years of service, and age 50 with 10 years of service where age 48 with 21 years of service may be accelerated to age 47 with 20 years of service. Note that age 47 with 20 years of service is not taken into account for the "earliest" Normal Retirement Age for purposes of determination of DROP period reduction.

DROP participants are not eligible for death or disability benefits. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. For DROP entrants prior to September 25, 2012, the Accrued Benefit is accumulated with interest at the same rate as the investment earnings assumption for the funding valuation of the Plan. Effective September 25, 2012, for Members who commenced participation in the DROP on or after October 1, 2010 and elected to extend DROP participation to 84 months (11 such Members) and for new DROP entrants effective September 25, 2012, interest crediting is based on an annual interest rate of 6.0%. No interest is credited after the end of the DROP period.

Cost of Living Adjustment (COLA): Effective September 30, 2001, an annual 2% COLA commences at the end of the 4<sup>th</sup> year following initial receipt of retirement benefits for all Members who reach Early or Normal Retirement Age and begin receipt of benefits (either directly or through the DROP) after September 30, 2001, and the beneficiaries of such Members. Effective January 1, 2004, COLA payments under this provision are deferred 12 months after separation from employment for Members who participate in the DROP for more than 3 years.

Members who retire or terminate employment on or after January 1, 2004 may elect, in lieu of the 2% COLA described above, a 1% annual COLA commencing 12 months after initial receipt of retirement benefits, which would increase to a 2% annual COLA at the end of the 6<sup>th</sup> year following initial receipt of retirement benefits.

COLAs were also payable as part of the Retirement Incentive Programs. See the description of the Retirement Incentive Programs for a description of the associated COLAs.

Ordinance No. 124-X-13-B adopted effective August 13, 2013 increased the annual COLA effective October 1, 2013 to 2.5% commencing at the end of the seventh year following initial receipt of retirement benefits for firefighters who terminate employment and begin receiving normal retirement benefits or enter the DROP on or after October 1, 2010, and the beneficiaries of such members. Note that for DROP members the "initial receipt of retirement benefits" has historically been interpreted to mean the date of DROP.

Supplemental Benefit: Ordinance No. 124-X-09-A adopted October 13, 2009 amended Plan provisions to provide for a Supplemental Benefit for firefighters. Effective October 1, 2009, firefighters who terminate employment and begin receiving normal or early retirement benefits on or after October 1, 2007 receive a Supplemental Benefit payable monthly which is:

- The lesser of [(i) \$25 x Credited Service and (ii) \$500] payable until age 65
- The lesser of [(i) \$15 x Credited Service and (ii) \$300] payable from age 65 for life

This supplemental benefit is not increased for any COLAs defined under the Plan and is only payable after DROP exit (to members who entered the DROP on or after October 1, 2007). Members who terminate employment on or after October 1, 2007 due a deferred vested benefit receive the supplement upon retirement. Members who retire under disability retirement provisions are not eligible to receive the supplement.

Each retiree's supplemental benefit is determined on an annual basis, and the amount of the supplemental benefit may vary from year to year or the supplemental benefit may be discontinued entirely depending on required benefit increases from the State and available funding.

Share Plan: Ordinance No. 124-X-16-C adopted July 12, 2016 amended Plan provisions to indicate that Chapter 175 contributions received each fiscal year in excess of \$2,055,127 may be used to provide Share Plan benefits.

## Actuarial Assumptions and Methods

This is a description of the Actuarial Assumptions and Methods used to create the October 1, 2019 actuarial valuation of the Plan.

Assumed Rate of Investment Return: 7.8% per year net of investment expenses

Salary Increase – Total Payroll: 3.0% per year

Salary Increase – Individual: The following salary rate increases are assumed:

<u>Service</u>	<u>Rate</u>
0-4	12.00%
5-9	6.00%
10-14	5.50%
15-19	5.25%
>=20	5.00%

Mortality: The mortality table is that used for special risk employees in the valuation of FRS as of July 1, 2016, 2017, and 2018, as required by state statute. The mortality rates are as follows:

Healthy mortality (Pre-retirement):

Males: 10% RP-00 Combined Healthy White Collar +  
90% RP-00 Combined Healthy Blue Collar  
Females: 100% RP-00 Combined Healthy White Collar  
Both male and female rates fully generational using Scale BB

Healthy mortality (Post-retirement):

Males: 10% RP-00 Annuitant White Collar +  
90% RP-00 Annuitant Blue Collar  
Females: 100% RP-00 Annuitant White Collar  
Both male and female rates fully generational using Scale BB

Disabled mortality:

Males: 60% RP-00 Disabled Retiree Set Back 4 Years +  
40% RP-00 Annuitant White Collar  
Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs +  
40% RP-00 Annuitant White Collar

No mortality improvement is assumed for disabled lives.

Retirement: For Members hired prior to September 25, 2012, unisex rates, as follows:

<u>Age</u>	<u>Service From</u>					
	<u>10-13</u>	<u>14-19</u>	<u>20-23</u>	<u>24</u>	<u>25-29</u>	<u>30+</u>
<=44	0%	0%	0%	0%	0%	0%
45-46	0%	0%	0%	0%	60%	100%
47-49	0%	0%	20%	60%	60%	100%
50-54	10%	10%	20%	20%	20%	100%
55-59	20%	100%	100%	100%	100%	100%
60+	100%	100%	100%	100%	100%	100%

For Members hired on or after September 25, 2012, unisex rates, as follows:

Age	Service From				
	10	11-24	25	26-29	30+
<=49	0%	0%	0%	0%	0%
50	10%	10%	10%	10%	100%
51	10%	0%	0%	0%	100%
52	10%	0%	100%	100%	100%
53	10%	0%	100%	100%	100%
54	10%	0%	100%	100%	100%
55+	100%	100%	100%	100%	100%

Disability: Unisex rates, as follows:

Age	Probability	Age	Probability	Age	Probability	Age	Probability
15-20	0.140%	30	0.180%	40	0.300%	50	1.000%
21	0.142%	31	0.190%	41	0.342%	51	1.110%
22	0.144%	32	0.200%	42	0.384%	52	1.220%
23	0.146%	33	0.210%	43	0.426%	53	1.330%
24	0.148%	34	0.220%	44	0.468%	54	1.440%
25	0.150%	35	0.230%	45	0.510%	55	1.550%
26	0.156%	36	0.244%	46	0.608%	56	1.660%
27	0.162%	37	0.258%	47	0.706%	57	1.770%
28	0.168%	38	0.272%	48	0.804%	58	1.880%
29	0.174%	39	0.286%	49	0.902%	59	1.990%
						60+	0.000%

75% of disabilities are assumed to be service connected.

Termination: As follows:

Service	Rate
0-1	18.00%
2-5	8.00%
6-9	2.25%
10-19	1.75%
20+	0.00%

Plan Expenses: The prior year administrative expense is added to the normal cost.

Marital Assumption: 80% of males are assumed married and 50% of females are assumed married. Husbands are assumed to be four years older than wives.

Funding Method: Entry Age (level percent of salary)

A description of the funding method is found in the October 1, 2019 actuarial valuation report on the page entitled "Glossary of Actuarial Terms."



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# City of Sunrise

# Firefighters' Retirement Plan

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## GASB 68 Supplement as of September 30, 2020



REPORT TO PROVIDE DISCLOSURES UNDER GASB STATEMENT NO. 68  
FOR THE CITY'S FISCAL YEAR ENDING  
SEPTEMBER 30, 2020





September 21, 2020

Board of Trustees  
City of Sunrise Firefighters' Retirement Plan  
Sunrise, Florida

**RE: GASB 68 Supplement as of September 30, 2020**

Dear Board Members:

We are pleased to present the Governmental Accounting Standards Board Statements No. 68 (GASB 68) Supplement as of September 30, 2020 for the City of Sunrise (the City) Firefighters' Retirement Plan (the Plan).

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report provides information required to be disclosed under GASB 68 as described in the statement and the implementation guide. The relevant dates are as follows:

<b>GASB 68</b>	
Valuation Date	10/01/2018
Measurement Date	09/30/2019
Reporting Date	09/30/2020

Please let us know if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chad Little'.

Chad M. Little, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 20-6619

A handwritten signature in black ink, appearing to read 'Paula C. Freiman'.

Paula C. Freiman, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 20-5796

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## Statement of Fiduciary Net Position

<b>As of September 30,</b>	<b>2019</b>	<b>2018</b>
<b>Assets</b>		
Receivables and prepaid expenses:		
Interest and dividends	\$202,889	\$201,153
Employee contributions	47,047	42,207
State of Florida	0	763,749
Pending trades receivable	<u>280,087</u>	<u>174,754</u>
Total receivables	<u>530,023</u>	<u>1,181,863</u>
Investments, at fair value:		
Money market funds	3,674,298	4,792,066
U.S. government bonds and notes	3,962,155	1,872,033
U.S. government agency securities	288,341	0
Mortgage-backed securities	5,380,489	3,797,509
Corporate obligations	3,883,933	5,393,724
Common stock	52,286,836	55,664,167
International equity mutual funds	9,522,760	9,192,264
Collective investment funds	45,581,266	44,250,666
Commingled real estate funds	<u>21,508,488</u>	<u>20,471,652</u>
Total investments	<u>146,088,566</u>	<u>145,434,081</u>
Total assets	<u>146,618,589</u>	<u>146,615,944</u>
<b>Liabilities</b>		
Accounts payable	106,479	133,629
Pending trades payable	<u>262,806</u>	<u>245,046</u>
Total liabilities	<u>369,285</u>	<u>378,675</u>
<b>Net position restricted for pensions</b>	<u>\$146,249,304</u>	<u>\$146,237,269</u>

## Statement of Changes in Fiduciary Net Position

<b>As of September 30,</b>	<b>2019</b>	<b>2018</b>
<b>Additions</b>		
Contributions:		
Employer	\$6,279,661	\$6,027,609
State of Florida	821,826	763,749
Employees	<u>1,340,439</u>	<u>1,244,670</u>
Total contributions	<u>8,441,926</u>	<u>8,036,028</u>
Investment income (loss):		
Net (depreciation) appreciation in fair value of investments	3,797,398	12,026,768
Interest and dividends	2,835,967	2,468,604
Other income	<u>11,158</u>	<u>3,732</u>
Total investment income	<u>6,644,523</u>	<u>14,499,104</u>
Less investment expenses:		
Investment expense	<u>704,670</u>	<u>688,712</u>
Net investment income	<u>5,939,853</u>	<u>13,810,392</u>
Total additions	<u>14,381,779</u>	<u>21,846,420</u>
<b>Deductions</b>		
Participant benefit payments	14,163,770	10,960,320
Refunds of participant contributions	6,194	0
Administrative expenses	<u>199,780</u>	<u>197,469</u>
Total deductions	<u>14,369,744</u>	<u>11,157,789</u>
<b>Net increase in net position</b>	12,035	10,688,631
<b>Net position restricted for pensions</b>		
Beginning of year	<u>146,237,269</u>	<u>135,548,638</u>
End of year	<u>\$146,249,304</u>	<u>\$146,237,269</u>

## Net Pension Liability

The total pension liability under GASB 68 is based on the October 1, 2018 actuarial valuation updated to the September 30, 2019 measurement date. The following actuarial assumptions are applied to all periods included in the measurement.

Inflation:	2.5%
Salary increases:	12.0% to 5.0%, including inflation
Investment return:	7.8% net of investment expense, including inflation
Mortality:	From the July 1, 2016, 2017, & 2018 FRS special risk actuarial valuations:
Healthy mortality (Pre-retirement):	
	Males: 10% RP-00 Combined Healthy White Collar + 90% RP-00 Combined Healthy Blue Collar
	Females: 100% RP-00 Combined Healthy White Collar
	Both male and female rates fully generational using Scale BB
Healthy mortality (Post-retirement):	
	Males: 10% RP-00 Annuitant White Collar + 90% RP-00 Annuitant Blue Collar
	Females: 100% RP-00 Annuitant White Collar
	Both male and female rates fully generational using Scale BB
Disabled mortality:	
	Males: 60% RP-00 Disabled Retiree Set Back 4 Years + 40% RP-00 Annuitant White Collar
	Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs + 40% RP-00 Annuitant White Collar
	No mortality improvement is assumed for disabled lives.

Assumptions are based on the results of a 5-year actuarial experience study as of October 1, 2014. See the paragraph entitled "Assumptions" on page 4 of the October 1, 2017 actuarial valuation report for details.

The long-term expected net rate of return on investments for the October 1, 2018 actuarial valuation was determined using a building-block method. Best-estimate ranges of expected future real rates of return (expected returns net of investment expense and inflation) are developed for each major asset class. The long-term expected net rate of return on investments is the best-estimate ranges weighted by the asset allocation plus expected inflation. Best estimates of arithmetic real rates of return for each major asset class as provided by the investment monitor are shown in the following table:

Investment Category	Target Allocation	Long Term Real Annualized Return*
Large Cap	32%	5.7%
Mid Cap	8%	9.5%
Small Cap	10%	7.6%
Int'l Developed	12%	3.8%
Emerging Markets	3%	10.3%
Real Estate	15%	6.4%
Fixed Income	<u>20%</u>	1.4%
	100%	
Weighted Average Long Term Real Annualized Return =		5.5%

\*For illustrative purposes, historical long term (20 year) arithmetic average returns provided by the investment monitor have been used as a reasonable expectation of returns.

The expected rate of inflation reported by the investment monitor is 3%.

Note, however, that long-term expected net rates of return for actuarial valuations should be compared to geometric returns. Based on the above information provided by the investment monitor as of September 30, 2018, the 7.8% discount rate used to measure the total pension liability is achievable.

The discount rate used to measure the total pension liability was 7.8%. This is the single rate that reflects the long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits. A projection of cash flows used to determine the discount rate assumed that plan member contributions are made at the current contribution rate and that City contributions will be made equal to the difference between the actuarially determined contribution and the member contributions. Based on those assumptions, the pension plan's fiduciary net position is projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments is applied to all periods of projected benefit payments to determine the total pension liability. For purposes of this determination we understand pension plan assets are expected to be invested using a strategy to achieve the discount rate.

Note: See "Actuarial Assumptions and Methods" for a full description of the assumptions used in the determination of the total pension liability.

For GASB 68 the net pension liability is required to be measured as of a date no earlier than the end of the employer's prior fiscal year (the measurement date), consistently applied from period to period. The net pension liability was measured as of September 30, 2019 under GASB 68 for the employer's fiscal year ending September 30, 2020.

The components of the net pension liability at September 30, 2019 were as follows.

<b>Measurement Date September 30,</b>	<b>2019</b>
Total pension liability	\$199,885,546
Plan fiduciary net position	<u>(146,249,304)</u>
Net pension liability	<u>\$53,636,242</u>
Plan fiduciary net position as a % of the total pension liability	73.17%

Sensitivity of the net pension liability to changes in the discount rate follows.

	1% Decrease <u>(6.8%)</u>	Current Discount Rate <u>(7.8%)</u>	1% Increase <u>(8.8%)</u>
Net pension liability	\$79,913,336	\$53,636,242	\$32,337,164

## Schedule of Changes in Net Pension Liability and Related Ratios

This schedule will be updated each year until a 10-year history is accumulated.

Year Ending September 30,	2019	2018	2017	2016	2015	2014
<b>Total pension liability</b>						
Service cost	\$3,618,905	\$3,649,483	\$3,389,400	\$3,217,784	\$3,090,913	\$3,007,593
Interest	14,934,337	14,426,543	13,694,521	12,568,229	12,023,905	11,602,371
Changes of benefit terms	0	0	432,669	0	0	0
Differences between expected and actual experience	1,076,608	231,072	1,152,743	(728,503)	0	(1,492,632)
Changes of assumptions	0	1,196,786	4,703,070	1,643,838	0	172,854
Benefit payments	(14,163,770)	(10,960,320)	(6,456,401)	(6,437,587)	(8,093,516)	(7,121,213)
Contribution refunds	<u>(6,194)</u>	<u>0</u>	<u>(6,743)</u>	<u>(63,852)</u>	<u>0</u>	<u>0</u>
<b>Net change in total pension liability</b>	5,459,886	8,543,564	16,909,259	10,199,909	7,021,302	6,168,973
<b>Total pension liability - beginning</b>	<u>194,425,660</u>	<u>185,882,096</u>	<u>168,972,837</u>	<u>158,772,928</u>	<u>151,751,626</u>	<u>145,582,653</u>
<b>Total pension liability - ending (a)</b>	\$199,885,546	\$194,425,660	\$185,882,096	\$168,972,837	\$158,772,928	\$151,751,626
<b>Plan fiduciary net position</b>						
Contributions - employer	\$6,279,661	\$6,027,609	\$5,483,453	\$5,185,357	\$5,225,550	\$4,972,033
Contributions - State of Florida	821,826	763,749	766,995	803,419	853,244	879,470
Contributions - employee	1,340,439	1,244,670	1,288,279	1,338,474	1,156,746	1,125,192
Net investment income	5,939,853	13,810,392	14,302,330	11,249,228	176,272	10,639,774
Benefit payments	(14,163,770)	(10,960,320)	(6,456,401)	(6,437,587)	(8,093,516)	(7,121,213)
Contribution refunds	(6,194)	0	(6,743)	(63,852)	0	0
Administrative expense	(199,780)	(197,469)	(220,292)	(210,821)	(162,815)	(160,042)
Other	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Net change in plan fiduciary net position</b>	12,035	10,688,631	15,157,621	11,864,218	(844,519)	10,335,214
<b>Plan fiduciary net position - beginning</b>	<u>146,237,269</u>	<u>135,548,638</u>	<u>120,391,017</u>	<u>108,526,799</u>	<u>109,371,318</u>	<u>99,036,104</u>
<b>Plan fiduciary net position - ending (b)</b>	\$146,249,304	\$146,237,269	\$135,548,638	\$120,391,017	\$108,526,799	\$109,371,318
<b>Net pension liability - ending (a) - (b)</b>	\$53,636,242	\$48,188,391	\$50,333,458	\$48,581,820	\$50,246,129	\$42,380,308
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	73.17 %	75.22 %	72.92 %	71.25 %	68.35 %	72.07 %
<b>Expected covered employee payroll</b>	\$12,564,427	\$11,728,068	\$12,036,803	\$11,680,780	\$10,816,447	\$10,555,759
<b>Net pension liability as a percentage of covered employee payroll</b>	426.89 %	410.88 %	418.16 %	415.91 %	464.53 %	401.49 %

**Notes to Schedule:** The total pension liability as of September 30, 2014 and as of September 30, 2015 are based on an actuarial valuation as of October 1, 2014. The total pension liability as of September 30, 2016, 2017, 2018 and 2019 are based on an actuarial valuation as of October 1, 2015, 2016, 2017, and 2018 respectively. See the section entitled "Assumptions and Methods" for a description of changed assumptions.

## Statement of Changes in Net Pension Liability

	<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>Balances at 9/30/2018</b>	<u>\$194,425,660</u>	<u>\$146,237,269</u>	<u>\$48,188,391</u>
<b>Changes for the year:</b>			
Service cost	3,618,905		3,618,905
Interest	14,934,337		14,934,337
Changes of benefit terms	0		0
Differences between expected and actual experience	1,076,608		1,076,608
Changes of assumptions	0		0
Contributions—employer		6,279,661	(6,279,661)
Contributions—State of Florida		821,826	(821,826)
Contributions—employee		1,340,439	(1,340,439)
Net investment income		5,939,853	(5,939,853)
Benefit payments, including refunds of employee contributions	(14,169,964)	(14,169,964)	0
Administrative expense		(199,780)	199,780
Other changes		0	0
<b>Net changes</b>	<u>5,459,886</u>	<u>12,035</u>	<u>5,447,851</u>
<b>Balances at 9/30/2019</b>	<u><u>\$199,885,546</u></u>	<u><u>\$146,249,304</u></u>	<u><u>\$53,636,242</u></u>



## Pension Expense and Deferred Outflows and Inflows of Resources

Pension expense for the year ended September 30, 2020 is as shown below using a measurement date of September 30, 2019.

Description	Amount
Service cost	\$3,618,905
Interest on the total pension liability	14,934,337
Changes of benefit terms	0
Differences between expected and actual experience	318,200
Changes of assumptions	1,481,040
Employee contributions	(1,340,439)
Projected earnings on pension plan investments	(11,388,178)
Differences between projected and actual earnings on plan investments	778,116
Pension plan administrative expense	199,780
Other changes in fiduciary net position	0
Total pension expense	\$8,601,761

At the September 30, 2019 measurement date there are deferred outflows and inflows of resources from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$1,474,589	\$168,115
Changes of assumptions	3,033,975	0
Net difference between projected and actual earnings	4,358,660	4,241,257
Employer contributions subsequent to NPL measurement	7,162,732	0
Total	\$16,029,956	\$4,409,372

Employer contributions subsequent to NPL measurement shown above assumes the City contributed the actuarially determined contribution for the fiscal year ending September 30, 2020 as shown in the October 1, 2018 actuarial valuation of the Plan. We were not provided with the contributions made.

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

<b>Year ended September 30:</b>	
2020	\$861,738
2021	1,216,563
2022	1,074,566
2023	1,304,985
2024	0

## Recognition of Deferred Outflows and Inflows of Resources

<u>Year</u>	<u>Original Amount</u>	<u>Recognition Period</u>	<u>Recognition Year</u>						
			<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2022</u>		
Differences between Expected and Actual Experience									
2014	(1,492,632)	5.1	(29,267)	0	0	0	0	0	0
2016	(728,503)	5.2	(140,097)	(140,097)	(28,018)	0	0	0	0
2017	1,152,743	5.1	226,028	226,028	226,028	22,603	0	0	0
2018	231,072	5.0	46,214	46,214	46,214	46,216	0	0	0
2019	1,076,608	5.0	215,322	215,322	215,322	215,322	215,320	0	0
Changes in Assumptions									
2014	172,854	5.1	3,389	0	0	0	0	0	0
2016	1,643,838	5.2	316,123	316,123	63,223	0	0	0	0
2017	4,703,070	5.1	922,171	922,171	922,171	92,215	0	0	0
2018	1,196,786	5.0	239,357	239,357	239,357	239,358	0	0	0
Differences Between Projected and Actual Earnings on Pension Plan Investments									
2015	8,707,494	5.0	1,741,498	0	0	0	0	0	0
2016	(2,478,233)	5.0	(495,647)	(495,645)	0	0	0	0	0
2017	(4,632,944)	5.0	(926,589)	(926,589)	(926,588)	0	0	0	0
2018	(3,154,057)	5.0	(630,811)	(630,811)	(630,811)	(630,813)	0	0	0
2019	5,448,325	5.0	1,089,665	1,089,665	1,089,665	1,089,665	1,089,665	0	0

## Schedule of Contributions

Year Ending September 30,	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	\$7,162,732	\$7,101,487	\$6,791,358	\$6,250,448	\$5,988,776	\$6,078,794	\$5,851,503	\$5,064,882	\$4,579,306	\$3,962,222
Contributions in relation to the actuarially determined contribution	<u>7,162,732</u>	<u>7,101,487</u>	<u>6,791,358</u>	<u>6,250,448</u>	<u>5,988,776</u>	<u>6,078,794</u>	<u>5,851,503</u>	<u>5,064,882</u>	<u>4,579,306</u>	<u>3,962,222</u>
Contribution deficiency (excess)	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Covered-employee payroll	\$12,837,633	\$12,564,427	\$11,728,068	\$12,036,803	\$11,680,780	\$10,816,447	\$10,555,759	\$10,414,292	\$10,421,396	\$10,725,059
Contributions as a percentage of covered-employee payroll	55.79 %	56.52 %	57.91 %	51.93 %	51.27 %	56.20 %	55.43 %	48.63 %	43.94 %	36.94 %

**Notes to Schedule**

Contributions in relation to the actuarially determined contribution shown above assumes that the City contributed the actuarially determined contribution for the fiscal year ending September 30, 2020 as shown in the October 1, 2018 actuarial valuation of the Plan. Covered-employee payroll for the fiscal year ending September 30, 2020 equals that estimated in the October 1, 2018 actuarial valuation.

Actuarially determined contributions are calculated based on the valuation as of the beginning of the year prior to the fiscal year in which contributions are due.

Methods and assumptions used to determine contributions for the year ending September 30, 2019:

Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	25 years
Asset valuation method	5-year smoothed market
Inflation	2.5 %
Salary increases	12% to 5%, including inflation
Investment rate of return	7.8%, net of investment expenses, including inflation
Retirement age	See "Description of Assumptions and Methods" for the assumed retirement age assumption
Mortality	Mortality rates as used in the actuarial valuation of the Florida Retirement System for special risk, as required by state statute.

## Schedule of Investment Returns

<b>Year Ending September 30,</b>	<b>Annual money-weighted rate of return net of investment expense</b>
2019	4.5 %
2018	10.3 %
2017	11.8 %
2016	10.4 %
2015	0.5 %
2014	10.5 %
2013	16.0 %
2012	19.4 %
2011	1.5 %
2010	9.1 %

## Plan Membership Statistics

<b>Year Beginning October 1,</b>	<b>2018</b>	<b>2017</b>
Inactive members or beneficiaries currently receiving benefits	129	119
Inactive members entitled to but not yet receiving benefits	0	2
Active members	<u>114</u>	<u>114</u>
Total number of members	<u>243</u>	<u>235</u>

## Plan Description

This is a description of the Plan provisions used to create the October 1, 2018 actuarial valuation of the Plan.

Plan Type: Single-employer Defined Benefit Pension Plan

Plan Administrator: The Board of Trustees

Board Composition: The trustees consist of five members which may include participants who have at least 18 months remaining in the DROP at the time they take office, none who are elected city officials, and who are selected as follows:

- (a) Two members who are elected current members of the plan,
- (b) Two members who are legal residents of the city and current or former city employees who are vested in the Plan, and
- (c) One member chosen by a majority of the previous four members.

Legal Authority: The Plan was established and is amended by local ordinance.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Effective Dates: The Plan was most recently amended by Ordinance No. 124-X-17-B adopted September 12, 2017. This ordinance amended the Plan to (1) remove the value of the Plan's cost-of-living adjustment from the initial determination of Section 415(b) limits effective September 29, 2016 and (2) requires that members receive estimated calculations before retirement or DROP entry to let them know if they are expected to have benefits in excess of Section 415(b) limitations. For members who retired from employment on and after September 29, 2016 the Section 415(b) limit is adjusted annually after retirement as the Internal Revenue Service releases new calendar year limits under Section 415(d).

Prior to this the last amendment to the Plan was Ordinance No. 124-X-16-C effective July 12, 2016.

Plan Year: The 12-month period from October 1<sup>st</sup> to the following September 30<sup>th</sup>.

Member: Full-time firefighters become Members immediately upon hire.

Actuarial Equivalence: Effective April 27, 2010 under Ordinance No. 124-X-10-A, Actuarial Equivalence is based on an 8.0% interest rate, RP-2000 static mortality table (unisex 50/50) projected to 2010 using scale AA. The disabled mortality table is used for disability retirees.

Credited Service: Service with the City as a full-time salaried firefighter where Member contributions are made. Completed months of partial years of service are included in the determination of Credited Service.

Members with at least ten years of service who enter the DROP or retire on or after September 25, 2012 may purchase up to four years of active service in the U.S. Armed Forces or service worked as a full-time firefighter as defined under Florida Statutes section 175.032(8)(a) with another governmental entity prior to employment with the City provided the Member has not received and will not receive a benefit from another retirement plan based on such service. The total combined purchase of prior governmental

and military service may not exceed four years. Payment for the purchase must be made in a cash lump sum or a direct transfer of funds from a member's account in the city's 457 plan.

Vesting: 100% upon earning ten years of Credited Service.

Salary: Total actual fixed cash compensation paid yearly for services rendered to the City as a firefighter including regular pay, overtime (limited to 300 hours per year effective October 1, 2012), holiday and other payroll cash incentives and general monthly expense allowances. Lump sum payments of accrued benefits upon termination of employment are not included in Salary. Auto allowances, uniform allowances, mileage and travel reimbursements, and income from private details are not includable in Salary.

Employee Contributions: Employee contribution rates are as follows for members hired before September 25, 2012.

<u>Effective</u>	<u>% of Salary</u>
11/13/2012	10.63%
09/25/2012	9.95%
01/01/2004	10.63% *

\*Any cost sharing provisions in place prior to October 1, 2008 where employees share in contribution increases in excess of 19.2% of budgeted payroll are no longer applicable. Prior to October 1, 2008, Employee Contributions were 10.63% plus 50% of the excess of City contributions over 19.2%.

For Members hired or rehired on or after September 25, 2012, 10.63% of Salary (prior to November 13, 2012 9.0% of Salary).

A Member who terminates non-vested is entitled to refund of accumulated Employee Contributions without interest.

Vested Members who terminate employment prior to being eligible to receive an annuity may leave their accumulated contributions in the fund, and upon Early or Normal Retirement Age begin receipt of pension payments.

Average Final Compensation: Prior to October 1, 2004, average of Salary for the five highest years. Effective October 1, 2004, average of Salary for the three highest consecutive years, or the five highest years out of the last 10 years of Credited Service, whichever is greater.

Normal Retirement Age: For Members hired before September 25, 2012, prior to January 1, 2004, age 50 and completion of at least 10 years of Credited Service. On and after January 1, 2004, the earliest of (i) age 45 and completion of 25 years of Credited Service, (ii) age 48 and completion of 21 years of Credited Service (which may be accelerated one year to age 47 and completion of 20 years of Credited Service), or (iii) age 50 and completion of 10 years of Credited Service.

For Members hired or rehired on or after September 25, 2012, the earlier of (i) age 55 and completion of 10 years of Credited Service or (ii) age 52 and completion of 25 years Credited Service.

Normal Retirement Benefit: The Accrued Benefit.

Accrued Benefit: For Members hired prior to September 25, 2012, prior to January 1, 2004, Members who reached Normal Retirement Age were entitled to a retirement benefit calculated as follows:

$$4.0\% \times \text{Average Final Compensation} \times \text{up to 10 Years Credited Service}$$

Plus

2.0% x Average Final Compensation x for Credited Service over 10 Years

For Members hired prior to September 25, 2012 who retire or terminate employment on or after January 1, 2004 the benefit formula is revised to a maximum of 80% of Average Final Compensation under the following:

3.0% x Average Final Compensation x up to 15 Years Credited Service

Plus

3.5% x Average Final Compensation x for Credited Service from 15 to 25 Years

Any Member who was actively employed on October 1, 2001 and retires or enters the DROP after January 1, 2004 is due a benefit based on the greater of these two benefit formulas. Members who were not employed on October 1, 2001 and hired prior to September 25, 2012 receive a benefit only under the formula in effect January 1, 2004.

For Members hired or rehired on and after September 25, 2012, the Accrued Benefit is defined under the following where no more than 80% of Average Final Compensation is payable:

3.0% x Average Final Compensation x up to 25 Years Credited Service

Plus

1.0% x Average Final Compensation x for Credited Service from 25 to 30 Years

In no event will the Accrued Benefit be less than 2.0% x Average Final Compensation x Credited Service.

Effective October 1, 2004, the Accrued Benefit is payable as a 10 year certain and continuous annuity. Prior to October 1, 2004 the Accrued Benefit was defined payable as a single life annuity.

Early Retirement Age: For Members hired before September 25, 2012, age 47 and completion of at least 10 years of Credited Service. For Members hired or rehired on or after September 25, 2012, age 50 and completion of at least 10 years of Credited Service.

Early Retirement Benefit: For Members hired before September 25, 2012, the Accrued Benefit reduced actuarially from Normal Retirement Age. However, in no event will the reduction for Early Retirement exceed 3% per year by which the commencement of benefits precedes the Normal Retirement Age. For Members hired on or after September 25, 2012, the Accrued Benefit reduced 3% per year by which the commencement of benefits precedes age 55.

Service Incurred Disability Retirement: Members who become totally and permanently disabled as a direct result from the performance of service-related duties to the City are due a benefit commencing on the earlier of (i) the first day of the month coincident with or next following the date of disability, or (ii) the 90<sup>th</sup> day following the day the Member submitted a completed application for disability. Any Plan Member receiving Service Incurred Disability Retirement may elect to convert to Normal or Early Retirement upon meeting all eligibility criteria. Plan Members receiving disability retirement benefits may elect to continue making regular contributions to the Plan, and based on such contributions earn additional service credit toward Normal or Early Retirement benefits.

The amount of the service incurred disability benefit is 75% of the Member's Salary in effect on the date of disability, subject to offsets not more than would reduce the service incurred disability benefit below the greater of the Member's Accrued Benefit or 42% x Average Final Compensation. The applicable offset to the service incurred disability benefit includes any disability benefits paid by workers'



compensation (excluding any COLA on these benefits) to the extent permitted by law and to the extent that the total of these benefits exceeds the Member's average periodic wage, subject to annual benefit adjustments. Special rules apply in the case of a lump sum settlement paid by workers' compensation.

The monthly service incurred disability benefit is adjusted annually for persons who first qualify for Service Incurred Disability on or after January 11, 2005, based on the sum of the following components calculated for the previous calendar year:

- (a) The service incurred disability retirement benefit paid from the Plan;
- (b) Worker's compensation disability benefits (excluding medical reimbursements) minus any COLA adjustments since the benefit first went into effect, to the extent permitted by law;
- (c) Any Salary (excluding any sick and vacation pay received from the City pursuant to the disability) received by a Member from the date of disability; and
- (d) Net earnings from self-employment income.

The Service Incurred Disability Retirement benefit is reduced if the Member's pre-disability Salary is less than the sum of the above components. The monthly reduction in the Service Incurred Disability Retirement benefit is 1/12 of (50% of the first \$10,000 in excess plus 100% of the excess which exceeds \$10,000).

If the sum of the four components is less than the Service Incurred Disability Retirement benefit computed prior to any applicable offsets, then the benefit will be increased. The monthly increase in the Service Incurred Disability Retirement benefit is 1/12 of the amount of the Service Incurred Disability Retirement benefit prior to offsets minus the sum of the four components.

Nonservice Incurred Disability Retirement: Members who become totally and permanently disabled not in the line of duty are entitled to Nonservice Incurred Disability Retirement upon earning at least 10 years of Credited Service.

The benefit payable to any Member who becomes totally and permanently disabled not in the line of duty is the Accrued Benefit, not less than 25% of Average Final Compensation. This benefit is payable until the Member recovers, begins receipt of disability benefits from Social Security, dies or reaches his Normal or Early Retirement Age, at which time the Member elects to receive Normal or Early Retirement Benefits in lieu of disability benefits.

Prior to October 1, 2004, there was a maximum Nonservice Incurred Disability Retirement benefit which was 50% of Average Final Compensation.

Death Benefits: The designated beneficiary of a nonvested Member is due a refund of the Employee Contributions without interest. The designated beneficiary of a vested Member who dies prior to retirement is entitled to receive either the refund of Employee Contributions without interest, or an amount equal to the benefit that would have been payable as if the Member terminated on the date of death, survived to the earliest retirement age, retired under the optional form of benefit selected by the Member, and died the next day. If no optional form of benefit was selected then the Death Benefit is payable for a period of 10 years. However, any Member who has attained a vested interest in the Plan and who becomes eligible for retirement and continues to be employed shall be construed to have selected the option which affords the surviving spouse or joint pensioner the greatest amount of benefits.

Optional Forms of Benefit: Effective October 1, 2004, the Accrued Benefit described above is payable in the form of a 10 year certain and continuous annuity. Prior to October 1, 2004, the Accrued Benefit was payable in the form of a single life annuity. Members may optionally choose an actuarially equivalent joint and survivor annuity (with 50%, 66 2/3, 75% or 100% continuance). The joint and survivor option may include an actuarially equivalent "pop-up" feature such that if the Member's joint pensioner predeceases the Member, the survivorship benefit is deemed cancelled and the Member's annuity is recalculated as an actuarially equivalent life annuity effective on the first day of the month following the death of the Member's joint pensioner.

1999 Retirement Incentive Program: Members who, by November 30, 1999, had earned at least 20 years of Credited Service and had reached Normal Retirement Age (then age 50 with 10 years of Credited Service) were eligible to participate in a Retirement Incentive Program by making an election during a window period of 30 days commencing November 1, 1999. Members who elected to participate were required to terminate employment no later than November 30, 1999 unless they elected to participate in the DROP (where they were required to terminate employment no later than November 30, 2000). The monthly retirement benefit was based on the years of Credited Service and Average Final Compensation on their date of termination or DROP using the benefit formula in effect at that time. Eligible employees who elected this Retirement Incentive Program received, in addition to any other benefits, 18 months of retirement benefits payable at retirement. However, for those who entered the DROP as a part of this Retirement Incentive Program, 18 months of retirement benefit payments were paid into the employee's DROP account at the beginning of the DROP period. Interest was earned in the DROP account at the assumed rate of investment return used for valuation purposes. Under this Retirement Incentive Program, a 2% COLA commenced one year after termination of employment.

2002 Retirement Incentive Program: Members who, by April 15, 2002, were (i) at least age 46 and had completed at least 26 years of Credited Service, or (ii) at least age 50 and had completed at least 10 years of Credited Service, were eligible to participate in the Retirement Incentive Program by making an election during a window period of 30 calendar days commencing February 27, 2002. Members who elected to participate were required to terminate employment no later than April 15, 2002 unless they elected to participate in the DROP (36 months total) or BAC-DROP (up to 18 months reducing the future time in the DROP so no more than 36 months total in BAC-DROP plus the DROP) where they were required to terminate employment no later than April 15, 2005. Members who elected to participate were entitled to unreduced retirement benefits based on the years of Credited Service and Average Final Compensation on their date of retirement using the benefit formula in effect at that time, plus an additional 3% was added to the benefit multiplier. Under the BAC-DROP option, a Member receives a lump sum distribution of up to 18 months of retirement benefits upon entry into the DROP, and the Member's monthly pension is then actuarially reduced to reflect the cost to the Plan for this lump sum distribution. These Members were also eligible to elect an optional COLA.

Note: Any firefighter who retired on or after October 1, 2001 but who is still employed with the City and in the DROP on the date the April 15, 2002 Retirement Incentive Program was adopted may elect by March 28, 2002 to have benefits refigured under the 2002 Retirement Incentive Program.

Deferred Retirement Option Plan (DROP): Effective September 30, 2001, Members are eligible to enter the DROP upon attaining their Normal Retirement Age.

Effective September 25, 2012, the maximum DROP participation duration is 84 months. Members who commenced participation in the DROP on or after October 1, 2010 and who were participating in the DROP on September 25, 2012 were allowed to extend their DROP participation from 72 to 84 months if the Member agreed all DROP account earnings are recomputed retroactively to the date of DROP using an annual interest rate of 6.0%.

Effective June 10, 2008, the maximum DROP participation duration was 72 months where Members participating in the DROP were allowed to extend their DROP participation from 60 to 72 months. Effective January 1, 2004, the maximum DROP participation duration was 60 months where Members participating in the DROP were allowed to extend their DROP participation from 36 to 60 months. Prior to January 1, 2004 the maximum DROP participation was 36 months.

Effective January 1, 2004, Members were allowed to elect to "BAC-DROP" for up to 18 months, which reduced the maximum 60 month (72 month effective June 10, 2008) DROP period by the same amount of time elected under the BAC-DROP. Effective September 25, 2012 Members may elect to "BAC-DROP" for up to 24 months, which reduces the 84 month DROP period by the same amount of time elected under the BAC-DROP. Under the BAC-DROP option, a Member receives a lump sum distribution of up to 18 months (24 effective September 25, 2012) of retirement benefits upon entry into

the DROP, and the Member's monthly pension is then actuarially reduced to reflect the cost to the Plan for this lump sum distribution.

Effective January 1, 2004 and prior to May 17, 2005, for every year (or portion thereof) of deferred entry into the DROP after the 12 month period following their "earliest" Normal Retirement Age, the maximum DROP period is reduced by one year. On and after May 17, 2005, Members who elect to participate in the DROP within the first five years following their "earliest" Normal Retirement Age incur no reduction to the maximum 60 month DROP period (72 month effective June 10, 2008 and 84 month effective September 25, 2012) for DROP entry deferral. However, the maximum DROP period is reduced for Members who elect to participate in the DROP beyond five years following their "earliest" Normal Retirement Age. For members hired prior to September 25, 2012, the Normal Retirement Age is the earliest of age 45 with 20 years of service, age 48 with 21 years of service, and age 50 with 10 years of service where age 48 with 21 years of service may be accelerated to age 47 with 20 years of service. Note that age 47 with 20 years of service is not taken into account for the "earliest" Normal Retirement Age for purposes of determination of DROP period reduction.

DROP participants are not eligible for death or disability benefits. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. For DROP entrants prior to September 25, 2012, the Accrued Benefit is accumulated with interest at the same rate as the investment earnings assumption for the funding valuation of the Plan. Effective September 25, 2012, for Members who commenced participation in the DROP on or after October 1, 2010 and elected to extend DROP participation to 84 months (11 such Members) and for new DROP entrants effective September 25, 2012, interest crediting is based on an annual interest rate of 6.0%. No interest is credited after the end of the DROP period.

Cost of Living Adjustment (COLA): Effective September 30, 2001, an annual 2% COLA commences at the end of the 4<sup>th</sup> year following initial receipt of retirement benefits for all Members who reach Early or Normal Retirement Age and begin receipt of benefits (either directly or through the DROP) after September 30, 2001, and the beneficiaries of such Members. Effective January 1, 2004, COLA payments under this provision are deferred 12 months after separation from employment for Members who participate in the DROP for more than 3 years.

Members who retire or terminate employment on or after January 1, 2004 may elect, in lieu of the 2% COLA described above, a 1% annual COLA commencing 12 months after initial receipt of retirement benefits, which would increase to a 2% annual COLA at the end of the 6<sup>th</sup> year following initial receipt of retirement benefits.

COLAs were also payable as part of the Retirement Incentive Programs. See the description of the Retirement Incentive Programs for a description of the associated COLAs.

Ordinance No. 124-X-13-B adopted effective August 13, 2013 increased the annual COLA effective October 1, 2013 to 2.5% commencing at the end of the seventh year following initial receipt of retirement benefits for firefighters who terminate employment and begin receiving normal retirement benefits or enter the DROP on or after October 1, 2010, and the beneficiaries of such members. Note that for DROP members the "initial receipt of retirement benefits" has historically been interpreted to mean the date of DROP.

Supplemental Benefit: Ordinance No. 124-X-09-A adopted October 13, 2009 amended Plan provisions to provide for a Supplemental Benefit for firefighters. Effective October 1, 2009, firefighters who terminate employment and begin receiving normal or early retirement benefits on or after October 1, 2007 receive a Supplemental Benefit payable monthly which is:

- The lesser of [(i) \$25 x Credited Service and (ii) \$500] payable until age 65
- The lesser of [(i) \$15 x Credited Service and (ii) \$300] payable from age 65 for life

This supplemental benefit is not increased for any COLAs defined under the Plan and is only payable after DROP exit (to members who entered the DROP on or after October 1, 2007). Members who terminate employment on or after October 1, 2007 due a deferred vested benefit receive the supplement upon retirement. Members who retire under disability retirement provisions are not eligible to receive the supplement.

Each retiree's supplemental benefit is determined on an annual basis, and the amount of the supplemental benefit may vary from year to year or the supplemental benefit may be discontinued entirely depending on required benefit increases from the State and available funding.

Share Plan: Ordinance No. 124-X-16-C adopted July 12, 2016 amended Plan provisions to indicate that Chapter 175 contributions received each fiscal year in excess of \$2,055,127 may be used to provide Share Plan benefits.

## Actuarial Assumptions and Methods

Assumed Rate of Investment Return: 7.8% per year net of investment expenses

Salary Increase – Total Payroll: 3.0% per year

Salary Increase – Individual: The following salary rate increases are assumed:

<u>Service</u>	<u>Rate</u>
0-4	12.00%
5-9	6.00%
10-14	5.50%
15-19	5.25%
>=20	5.00%

Mortality: The mortality table is that used for special risk employees in the valuation of FRS as of July 1, 2016, 2017, and 2018, as required by state statute. The mortality rates are as follows:

Healthy mortality (Pre-retirement):

Males: 10% RP-00 Combined Healthy White Collar +  
90% RP-00 Combined Healthy Blue Collar  
Females: 100% RP-00 Combined Healthy White Collar  
Both male and female rates fully generational using Scale BB

Healthy mortality (Post-retirement):

Males: 10% RP-00 Annuitant White Collar +  
90% RP-00 Annuitant Blue Collar  
Females: 100% RP-00 Annuitant White Collar  
Both male and female rates fully generational using Scale BB

Disabled mortality:

Males: 60% RP-00 Disabled Retiree Set Back 4 Years +  
40% RP-00 Annuitant White Collar  
Females: 60% RP-00 Disabled Retiree Set Forward 2 Yrs +  
40% RP-00 Annuitant White Collar  
No mortality improvement is assumed for disabled lives.

Retirement: For Members hired prior to September 25, 2012, unisex rates, as follows:

<u>Age</u>	<u>Service From</u>					
	<u>10-13</u>	<u>14-19</u>	<u>20-23</u>	<u>24</u>	<u>25-29</u>	<u>30+</u>
<=44	0%	0%	0%	0%	0%	0%
45-46	0%	0%	0%	0%	60%	100%
47-49	0%	0%	20%	60%	60%	100%
50-54	10%	10%	20%	20%	20%	100%
55-59	20%	100%	100%	100%	100%	100%
60+	100%	100%	100%	100%	100%	100%

For Members hired on or after September 25, 2012, unisex rates, as follows:

Age	Service From				
	10	11-24	25	26-29	30+
<=49	0%	0%	0%	0%	0%
50	10%	10%	10%	10%	100%
51	10%	0%	0%	0%	100%
52	10%	0%	100%	100%	100%
53	10%	0%	100%	100%	100%
54	10%	0%	100%	100%	100%
55+	100%	100%	100%	100%	100%

Disability: Unisex rates, as follows:

Age	Probability	Age	Probability	Age	Probability	Age	Probability
15-20	0.140%	30	0.180%	40	0.300%	50	1.000%
21	0.142%	31	0.190%	41	0.342%	51	1.110%
22	0.144%	32	0.200%	42	0.384%	52	1.220%
23	0.146%	33	0.210%	43	0.426%	53	1.330%
24	0.148%	34	0.220%	44	0.468%	54	1.440%
25	0.150%	35	0.230%	45	0.510%	55	1.550%
26	0.156%	36	0.244%	46	0.608%	56	1.660%
27	0.162%	37	0.258%	47	0.706%	57	1.770%
28	0.168%	38	0.272%	48	0.804%	58	1.880%
29	0.174%	39	0.286%	49	0.902%	59	1.990%
						60+	0.000%

75% of disabilities are assumed to be service connected.

Termination: As follows:

Service	Rate
0-1	18.00%
2-5	8.00%
6-9	2.25%
10-19	1.75%
20+	0.00%

Plan Expenses: The prior year administrative expense is added to the normal cost.

Marital Assumption: 80% of males are assumed married and 50% of females are assumed married. Husbands are assumed to be four years older than wives.

Funding Method: Entry Age (level percent of salary)