



March 8, 2019

Board of Trustees
c/o Mr. T. Scott Baker
New Port Richey
Police Officers' Retirement System
6739 Adams Street
New Port Richey, Florida 34652

Re: October 1, 2018 Actuarial Valuation

Dear Board Members:

As requested, we are pleased to enclose eleven (11) copies of the October 1, 2018 Actuarial Valuation Report for the New Port Richey Police Officers' Retirement System.

We look forward to presenting the key financial results of our Actuarial Valuation Report at the March 13th Board Meeting.

Upon Board approval of the Actuarial Valuation Report, we will upload an electronic copy of the Actuarial Valuation Report along with the required disclosure information to the State portal as required by the State.

We appreciate the opportunity to continue to work with the Board on this important assignment and look forward to responding to any questions that may arise.

If you should have any question concerning the above, please do not hesitate to contact us.

Sincerest regards,

A handwritten signature in black ink that reads "L. F. Wilson".

Lawrence F. Wilson, A.S.A.
Senior Consultant and Actuary

Enclosures

cc: Mr. Richard Cristini, C.P.A.

NEW PORT RICHEY POLICE OFFICERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF OCTOBER 1, 2018

This Valuation Determines the Annual Contribution for the System Year October 1, 2019 through September 30, 2020 to be Paid in Fiscal Year October 1, 2019 through September 30, 2020

March 8, 2019



**New Port Richey
Police Officers' Retirement System**

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March 8, 2019

Board of Trustees
City of New Port Richey
Police Officers' Retirement System
6739 Adams Street
New Port Richey, Florida 34652

Dear Board Members:

Re: October 1, 2018 Projection Actuarial Valuation Report

We are pleased to present our October 1, 2018 Projection Actuarial Valuation report for the City of New Port Richey Police Officers' Retirement System (System). The purpose of our report is to indicate appropriate contribution levels, comment on the actuarial stability of the System and to satisfy State reporting requirements. Gabriel, Roeder, Smith & Company (GRS), as System actuary, is authorized by the Board of Trustees to prepare an annual actuarial valuation under Section 17.53(d) of the System Ordinance.

This report consists of this commentary, detailed Tables I through XVIII, the State Required Exhibit on Table XIX and the technical definition on Table XX. The Tables contain basic System cost figures plus significant details on the benefits, liabilities and experience of the System. We suggest you thoroughly review our report at your convenience and contact us with any questions that may arise.

Retirement System Costs

Our Actuarial Valuation develops the required minimum Retirement System payment under the Florida Protection of Public Employee Retirement Benefits Act and for Police Officers Retirement Chapter 185 for fiscal year ending September 30, 2020. The minimum payment consists of payment of annual normal costs and amortization of the components of the unfunded actuarial accrued liability over various periods as prescribed by law.

The minimum payment for System Year ending September 30, 2020 is **32.0% of covered payroll (\$788,068)**. The figure in parentheses is the System cost expressed as a dollar amount based upon projected covered annual payroll for fiscal year ending September 30, 2020 (\$2,464,492).

This total cost is to be met by Member, City and State contributions. We anticipate Member contributions will be **6.5% of covered payroll** for fiscal year ending September 30, 2020 (**\$160,192**) and the available State contribution will be **\$236,919 (9.6% of projected payroll)** for fiscal year ending September 30, 2020. The required City contribution is **15.9% of projected covered payroll** for fiscal year ending September 30, 2020 (**\$390,957**).

The City contribution includes an interest adjustment and must be increased if actual FYE 2020 State contributions are less than \$236,919. The City has a credit balance as of the valuation date in the amount of \$260,676. The credit balance is available to offset the minimum required City contribution.

We understand the City can use all State money to reduce their contribution as provided under the Collective Bargaining Agreement for the period October 1, 2015 through September 30, 2018.

Changes in Actuarial Assumptions, Methods and System Benefits

System provisions valued remain unchanged from the Actuarial Impact Statement as of October 1, 2017. System provisions are summarized on Table X.

The actuarial assumptions and methods are unchanged from the Actuarial Impact Statement as of October 1, 2017. The actuarial assumptions and methods are outlined on Table XI.

Since actual State monies received during fiscal year ended September 30, 2018 (\$236,919) were less than \$285,159, we understand the supplemental benefit to be paid in calendar year 2019 will continue to be paid at a reduced amount of \$400 for Members hired prior to October 20, 1994 and \$200 for Members hired on or after October 20, 1994.

While we recently updated several assumptions based on a review of recent System experience, we continue to recommend the Board authorize a more robust Experience Study to assure actuarial assumptions are aligned with System experience and future expectations.

Comparison of October 1, 2017 and October 1, 2018 Valuation Results

Table II of our report provides information of a comparative nature. The left columns of the Table indicate the costs as calculated for the Actuarial Impact Statement as of October 1, 2017. The right columns indicate the costs as calculated for October 1, 2018.

Comparing the left and right columns of Table II shows the effect of System experience during the year. The number of active participants decreased by approximately 2% while covered payroll decreased by approximately 1%. The net City minimum funding payment along with the total normal cost increased both as a percentage of covered payroll and as a dollar amount. The unfunded accrued actuarial liability decreased both as a percentage of covered payroll and as a dollar amount.

The System continues to have assets in excess of present value of vested accrued benefits, resulting in a Vested Benefit Security Ratio (VBSR) of 118.1% which is an increase from 107.2% as of the Actuarial Impact Statement as of October 1, 2017. The VBSR is measured on a market value of assets basis.

Actuarial Gains (Losses)

Table VII indicates the System experienced an actuarial gain of \$1,151,197. This suggests actual overall experience was more favorable than expected.

Our Actuarial Valuation report tracks the actual experience in three areas that are very significant in determining whether a gain or loss occurs. Table XVI presents salary experience and tracks employee turnover. Table XVII provides information on investment return.

Table XVI provides ten years of history concerning increases in pay enjoyed by System participants. Average increases have been as follows:

<u>Period Ended</u> <u>September 30, 2018</u>	<u>Average</u> <u>Pay Increase</u>
1 Year	0.9%
3 Years	3.9%
5 Years	3.9%
10 Years	3.9%

The salary increase assumption was 6.0% per annum. Salary increase experience was generally a source of actuarial gain during the most recent System Year. Three, five and ten-year assumed average annual salary increases are 6.2%, 6.3% and 6.4%, respectively.

Table XVI also provides statistics for employees terminating service prior to entitlement for immediate System benefits in comparison to the number expected to terminate. Last year we expected approximately two participants would terminate. In fact, six participants terminated. This suggests employee turnover was generally an additional source of actuarial gain for the System Year.

Table XVII provides investment experience for the System in comparison to our assumption. During System Year 2017-2018, the System experienced a smoothed actuarial value return of approximately 9.79%. This return is more than the 7.75% assumed rate of return. Smoothed actuarial value investment return was an additional source of actuarial gain this year. Average smoothed actuarial value rates of return over the last three, five and ten years have been 9.8%, 10.5% and 7.3%, respectively. The average market value rate of return over the current and last three, five and ten years have been 13.97%, 10.6%, 9.9% and 9.9%, respectively.

Member Census and Financial Data

The Member census data as of October 1, 2018 and the System financial data used for this actuarial valuation were submitted to us by the Board. This information contains name, gender, Social Security number, date of birth, date of hire, actual salary paid and employee contributions deducted for the

previous year. Dates of termination and retirement are provided where applicable. Information on inactive participants including retirees, beneficiaries and vested terminees was updated by the Board.

We were supplied with information on the assets of the System as of September 30, 2018 by the System auditors. We do not audit the Member census data and asset information that is provided to us; however, we perform certain reasonableness checks. The System is responsible for the accuracy of the data.

Risks Associated with the Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; 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 System's funded status); and changes in System provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the system's future financial condition include:

1. Investment risk – actual investment returns may differ from expected returns;
2. Asset / Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and the actuarially determined contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the System's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and the actuarially determined contributions differing from expected;

5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and the actuarially determined contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the actuarially determined contribution can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in the actuarially determined contribution can be anticipated.

The computed the actuarially determined contribution rate shown on page one may be considered as a minimum contribution rate that complies with the Board’s funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the System. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

System Maturity Measures

Risks facing a pension system evolve over time. A young system with virtually no investments and paying few benefits may experience little investment risk. An older system with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted system maturity measures include the following:

	<u>2017 *</u>	<u>2018</u>
Ratio of the market value of assets to total payroll	10.67	12.05
Ratio of actuarial accrued liability to payroll	10.22	10.47
Ratio of actives to retirees and beneficiaries	0.95	0.95
Ratio of net cash flow to market value of assets	-1.7%	-1.5%
Duration of the actuarial accrued liability	11.75*	11.49

* Based upon October 1, 2017 Actuarial Valuation

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of the actuarially determined contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or

increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in the actuarially determined contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of the actuarially determined contributions for a fully funded system. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also the actuarially determined contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young system with many active members and few retirees will have a high ratio of active to retirees. A mature open system may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed system may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature system or a need for additional contributions.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, a duration of 10 indicates the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional

assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Summary

In our opinion the benefits provided for under the current System will be sufficiently funded through the payment of the amount as indicated in this and future Actuarial Valuation reports. We will continue to update you on the future payment requirements for the System through our actuarial reports. These reports will also continue to monitor emerging experience of the System.

The actuarial assumptions used in this Actuarial Valuation are as adopted by the Board of Trustees. The mortality assumptions are prescribed by statute. Each assumption represents an estimate of future System experience.

We continue to recommend the Board authorize a more robust Experience Study to assure actuarial assumptions are aligned with System experience and future expectations.

If all actuarial assumptions are met and if all future minimum required contributions are paid, System assets will be sufficient to pay all System benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. System minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act and Police Officers Retirement Chapter 185 with normal cost determined as a level percent of covered payroll and a level dollar amortization payment using a maximum amortization period of 30 years.

The Unfunded Actuarial Accrued Liability (UAAL) may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions. The UAAL would be different if it reflected the market value of assets rather than the actuarial value of assets.

The Unfunded Actuarial Present Value of Vested Accrued Benefits and the corresponding Vested Benefit Security Ratio may be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may not be appropriate for assessing the need for or the amount of future contributions.

The GASB Net Pension Liability and System Fiduciary Net Position as a Percentage of Total Pension Liability may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

This report should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes. This report may be provided to parties other than the Board only in its entirety and only with the permission of an approved representative of the Board.

The signing actuaries are independent of the System sponsor.

The undersigned are Members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. We are available to respond to any questions with regards to matters covered in this report.

Very truly yours,



Lawrence F. Wilson, A.S.A., E.A., M.A.A.A.
Senior Consultant and Actuary



Jennifer M. Borregard, E.A., M.A.A.A.
Consultant and Actuary

Summary of Retirement System Costs as of October 1, 2018

	<u>Cost Data</u>	<u>% of Payroll</u>
A. Participant Data Summary (Table III)		
1. Active employees	40	N/A
2. Terminated vested	5	N/A
3. Receiving benefits	40	N/A
4. DROP participants	2	N/A
5. Annual payroll of active employees	\$ 2,464,492	100.0%
B. Total Normal Cost		
1. Age retirement benefits	\$ 584,665	23.7%
2. Termination benefits	44,368	1.8%
3. Death benefits	15,974	0.6%
4. Disability benefits	65,027	2.6%
5. Estimated expenses	78,034	3.2%
6. Total annual normal cost	<u>\$ 788,068</u>	32.0%
C. Total Actuarial Accrued Liability		
1. Age retirement benefits active employees	\$ 6,875,879	279.0%
2. Termination benefits active employees	19,886	0.8%
3. Death benefits active employees	35,940	1.5%
4. Disability benefits active employees	148,302	6.0%
5. Retired or terminated vested participants receiving benefits	14,748,139	598.4%
6. DROP participants	1,266,887	51.4%
7. Terminated vested participants entitled to future benefits	1,485,554	60.3%
8. Deceased participants whose beneficiaries are receiving benefits	325,110	13.2%
9. Disabled participants receiving benefits	874,103	35.5%
10. Miscellaneous liability (refunds in process)	26,581	1.1%
11. Total actuarial accrued liability	<u>\$ 25,806,381</u>	1047.1%
D. Assets (Table V)		
1. Net smoothed actuarial value	\$ 28,077,132	1139.3%
2. Net market value	\$ 29,694,547	1204.9%
E. Unfunded Actuarial Accrued Liability (C.11.-D.1.)	\$ (2,270,751)	(92.1%)

Summary of Retirement System Costs as of October 1, 2018

	<u>Cost Data</u>	<u>% of Payroll</u>
F. Minimum Required Contribution		
1. Total normal cost	\$ 788,068	32.0%
2. Amortization of unfunded liability	(183,611)	(7.5%)
3. Interest adjustment	26,968	1.1%
4. Total required contribution	<u>\$ 631,425</u>	25.6%
G. Minimum Required Contribution (F.S., 112.66 (13)) (Greater of F.1. and F.4.)	\$ 788,068	32.0%
H. Expected payroll of active employees for 2019 - 2020 year (\$2,464,492 x 1.000)	\$ 2,464,492	100.0%
I. Expected Contribution Sources		
1. City	\$ 390,957	15.9%
2. State	\$ 236,919	9.6%
3. Member	\$ 160,192	6.5%
J. Actuarial Gain / (Loss)	\$ 1,151,197	46.7%
K. Actuarial Present Value of Vested Accrued Benefits		
1. Retired, terminated vested, beneficiaries and disabled receiving benefits	\$ 15,947,352	647.1%
2. DROP participants	1,266,887	51.4%
3. Terminated vested participants entitled to future benefits and miscellaneous	1,512,135	61.4%
4. Active participants entitled to future benefits	<u>6,407,294</u>	260.0%
5. Total actuarial present value of vested accrued benefits	\$ 25,133,668	1019.8%
L. Unfunded Actuarial Present Value of Vested Accrued Benefits (K.5. - D.2., not less than zero)	\$ 0	0.0%
M. Vested Benefit Security Ratio (D.2. ÷ K.5.)	118.1%	N/A

Table II

Comparison of Cost Data of October 1, 2017 and October 1, 2018 Valuations

	Actuarial Impact Statement			
	October 1, 2017		October 1, 2018	
	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation
A. Participants				
1. Active employees	41	N/A	40	N/A
2. Terminated vested	5	N/A	5	N/A
3. Receiving benefits	41	N/A	40	N/A
4. DROP participants	2	N/A	2	N/A
5. Annual payroll of active employees	\$ 2,478,660	100.0%	\$ 2,464,492	100.0%
B. Total Normal Cost	\$ 759,353	30.6%	\$ 788,068	32.0%
C. Total Actuarial Accrued Liability	\$ 25,333,845	1022.1%	\$ 25,806,381	1047.1%
D. Smoothed Actuarial Value of Assets	\$ 25,984,684	1048.3%	\$ 28,077,132	1139.3%
E. Unfunded Actuarial Accrued Liability	\$ (650,839)	(26.3%)	\$ (2,270,751)	(92.1%)
F. Net City Minimum Funding Payment	\$ 373,599	15.1%	\$ 390,957	15.9%
G. Actuarial Gain / (Loss)	\$ (379,086)	(15.3%)	\$ 1,151,197	46.7%
H. Vested Benefit Security Ratio	107.2%	N/A	118.1%	N/A

**Characteristics of Participants in
Actuarial Valuation as of October 1, 2018**

A. Active Plan Participants Summary

1. Active participants fully vested	35
2. Active participants partially vested	0
3. Active participants non-vested	5
4. Total active participants	40
5. Annual rate of pay of active participants	\$ 2,464,492

B. Retired and Terminated Vested Participant Summary

1. Retired or terminated vested participants receiving benefits	35
2. DROP participants	2
3. Terminated vested participants entitled to future benefits	5
4. Deceased participants whose beneficiaries are receiving benefits	2
5. Disabled participants receiving benefits	3

C. Annual Retirement Benefits

1. Retired or terminated vested receiving benefits	\$ 1,307,546
2. DROP participants	\$ 82,240
3. Terminated vested entitled to future benefits	\$ 183,573
4. Beneficiaries of deceased participants	\$ 30,590
5. Disabled participants	\$ 74,613

Statement of Assets as of October 1, 2018

<u>Assets</u>	<u>Market Value</u>
A. <u>Cash</u>	\$ 133,678
B. <u>Investments at market value</u>	
U.S. Government securities	\$ 3,918,675
U.S. Government agencies	1,576,578
Domestic corporate bonds	2,150,898
Domestic common stocks	17,828,684
Temporary investment funds	927,000
Real Estate	3,294,830
Total investments	<u>\$ 29,696,665</u>
C. <u>Receivables</u>	
Employer contribution	\$ 0
Employee contribution	0
Accrued interest	37,407
Accrued dividends	8,280
Broker-dealer	0
Other	0
Total receivables	<u>\$ 45,687</u>
D. <u>Prepaid expenses</u>	\$ 122,882
E. <u>Equipment at cost, net of accumulated depreciation</u>	\$ 0
F. <u>Liabilities</u>	
Accounts payable	\$ 43,689
Broker-dealer	0
Total liabilities	<u>\$ 43,689</u>
G. <u>Total System assets (A. + B. + C. + D. + E. - F.)</u>	\$ 29,955,223
H. <u>Credit balance</u>	<u>260,676</u>
I. <u>Net System assets (G. - H.)</u>	\$ 29,694,547

Table V

Reconciliation of System Assets

A. <u>Market value of assets as of October 1, 2017</u>	\$	26,657,341
B. <u>Receipts during period</u>		
1. Contributions		
a. Member	\$	111,835
b. City		809,318
c. State		236,919
d. Total	\$	1,158,072
2. Investment income		
a. Realized gains / (losses)	\$	2,617,134
b. Unrealized gains / (losses)		770,159
c. Interest		209,875
d. Dividends		242,134
e. Commission recapture		8,400
f. Other		12,960
g. Investment expense		(163,666)
h. Total	\$	3,696,996
3. Net receipts during period	\$	4,855,068
C. <u>Disbursements during period</u>		
1. Pension benefit payments	\$	1,418,866
2. DROP distributions		0
3. Contribution refunds		47,518
4. Administrative expenses		90,802
5. Total disbursements during period	\$	1,557,186
D. <u>Market value of assets as of September 30, 2018</u>	\$	29,955,223
E. <u>Credit balance</u>	\$	260,676
F. <u>Net market value of assets as of September 30, 2018 (D. - E.)</u>	\$	29,694,547
G. <u>Excess State funds</u>		
1. Balance as of October 1, 2017	\$	0
2. Increase for current year		0
3. Purchase of additional benefits		0
4. Funds released to reduce unfunded actuarial accrued liability		0
5. Balance as of September 30, 2018	\$	0
H. <u>Reconciliation of DROP account balances</u>		
1. DROP account balances as of October 1, 2017	\$	61,868
2. Benefit payments into DROP accounts during year		82,240
3. Investment credits during year		7,098
4. Distributions from DROP accounts during year		0
5. DROP account balances as of September 30, 2018	\$	151,206

Development of Smoothed Actuarial Value of Assets as of September 30, 2018

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
A. Preliminary smoothed actuarial value from prior year	\$ 24,386,938	\$ 26,191,781	\$ 28,337,808			
B. Market value end of year	26,657,341	29,955,223				
C. Market value beginning of year	24,064,494	26,657,341	29,955,223			
D. Non-investment net cash flow	(418,291)	(399,114)				
E. Investment return						
1. Total market value return: B. - C. - D.	3,011,138	3,696,996				
2. Amount for immediate recognition (7.75%)	1,848,790	2,050,478				
3. Amount for phased-in recognition: E.1. - E.2.	1,162,348	1,646,518				
F. Phased-in recognition of investment return						
1. Current year: 20% of E.3.	232,470	329,304				
2. First prior year	(125,016)	232,470	329,304			
3. Second prior year	(147,175)	(125,016)	232,470	329,304		
4. Third prior year	205,081	(147,175)	(125,016)	232,470	329,304	
5. Fourth prior year	208,984	205,080	(147,176)	(125,015)	232,468	329,302
6. Total phased-in recognition of investment return	374,344	494,663	289,582	436,759	561,772	329,302
G. Smoothed actuarial value end of year						
1. Preliminary smoothed actuarial value end of year A. + D. + E.2. + F.6.	26,191,781	28,337,808				
2. Upper corridor limit: 120% of B.	31,988,809	35,946,268				
3. Lower corridor limit: 80% of B.	21,325,873	23,964,178				
4. Smoothed actuarial value end of year: G.1., not more than G.2., nor less than G.3.	26,191,781	28,337,808				
H. Difference between market value and smoothed actuarial value	465,560	1,617,415				
I. Smoothed actuarial value rate of return	9.19%	9.79%				
J. Market value rate of return	12.62%	13.97%				
K. Credit Balance	207,097	260,676				
L. Net smoothed actuarial value end of year: G.4. - K.	25,984,684	28,077,132				

Funding Standard Account for
Plan Year Ended September 30, 2018

A. Charges to the Funding Standard Account

1. Prior year funding deficiency	\$	0
2. Net charges for the year		992,658
3. Total employer charges	\$	992,658

B. Credits to the Funding Standard Account

1. Prior year credit balance	\$	207,097
2. State contribution		236,919
3. City contributions		809,318
4. Total credits	\$	1,253,334

C. Credit Balance / (Funding Deficiency)

(B.4. - A.3.)	\$	260,676
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Actuarial Gain / (Loss) for
System Year Ended September 30, 2018

A. Derivation of Actuarial Gain / (Loss)

1. City / State normal cost previous actuarial impact statement	\$ 598,240
2. Net unfunded actuarial accrued liability previous actuarial impact statement	(650,839)
3. Net contributions previous year	
(a) City	\$ 795,195
(b) State	197,463
(c) Total	<u>\$ 992,658</u>
4. Interest on:	
(a) City / State normal cost	\$ 46,364
(b) Net unfunded actuarial accrued liability	(50,440)
(c) Net contributions	32,072
(d) Net total: (a) + (b) - (c)	<u>\$ (36,148)</u>
5. Reduction in net unfunded actuarial accrued liability resulting from reduction in supplemental benefits to be paid in 2019	\$ 38,149
6. Expected net unfunded actuarial accrued liability current year: (1. + 2. - 3. + 4. - 5.)	\$ (1,119,554)
7. Actual net unfunded actuarial accrued liability current year	<u>(2,270,751)</u>
8. Actuarial gain / (loss): (6. - 7.)	\$ 1,151,197

B. Approximate Portion of Gain / (Loss) due to Smoothed Investments

1. Net smoothed actuarial value of assets previous year	\$ 25,984,684
2. Net contributions during period	1,104,493
3. Benefits and administrative expenses during period	1,557,186
4. Expected net appreciation for period	<u>1,989,878</u>
5. Expected smoothed actuarial value of assets current year: (1. + 2. - 3. + 4.)	\$ 27,521,869
6. Net smoothed actual actuarial value of assets current year	<u>28,077,132</u>
7. Approximate gain / (loss) due to smoothed investments: (6. - 5.)	\$ 555,263

C. Approximate Portion of Gain / (Loss)

due to Liabilities: A. - B. \$ 595,934

Amortization of Unfunded Actuarial Accrued Liability

<u>Date</u>	<u>Unfunded Liability</u>	<u>Amortization Payment</u>
October 1, 2018	\$ (2,270,751)	\$ (183,611)
October 1, 2019	\$ (2,248,893)	\$ (183,611)
October 1, 2020	\$ (2,225,341)	\$ (183,611)
October 1, 2021	\$ (2,199,964)	\$ (183,611)
October 1, 2022	\$ (2,172,620)	\$ (183,611)
...		
...		
October 1, 2048	\$ 0	\$ 0

Accounting Disclosure Exhibit

	Actuarial Valuation	
	10/01/2017	10/01/2018
I. <u>Number of System Members</u>		
a. Retirees and beneficiaries receiving benefits	43	42
b. Terminated plan members entitled to deferred benefits	5	5
c. Active System members	41	40
d. Total System members	<u>89</u>	<u>87</u>
II. <u>Financial Accounting Standards Board Allocation as of October 1, 2018</u>		
A. <u>Statement of Accumulated System Benefits</u>		
1. Actuarial present value of accumulated vested System benefits		
a. Participants currently receiving benefits including DROPs	\$ 17,391,936	\$ 17,214,239
b. Other participants	6,572,970	7,919,429
c. Total	<u>\$ 23,964,906</u>	<u>\$ 25,133,668</u>
2. Actuarial present value of accumulated non-vested System benefits	<u>628,220</u>	<u>633,941</u>
3. Total actuarial present value of accumulated System benefits	\$ 24,593,126	\$ 25,767,609
B. <u>Statement of Change in Accumulated System Benefits</u>		
1. Actuarial present value of accumulated System benefits as of October 1, 2017		\$ 24,593,126
2. Increase (decrease) during year attributable to:		
a. System amendment		\$ 706,477
b. Change in actuarial assumptions		0
c. Benefits paid		(1,466,384)
d. Other, including benefits accumulated, increase for interest due to decrease in the discount period		<u>1,934,390</u>
e. Net increase		\$ 1,174,483
3. Actuarial present value of accumulated System benefits as of October 1, 2018		\$ 25,767,609
C. <u>Significant Matters Affecting Calculations</u>		
1. Assumed rate of return used in determining actuarial present values		7.75%
2. Change in System provisions		See Actuarial Impact Statement
3. Change in actuarial assumptions		None

Accounting Disclosure Exhibit

III. Net Pension Liability and Related Ratios (GASB No. 67)

Measurement date	9/30/2014 *	9/30/2015 *	9/30/2016	9/30/2017	9/30/2018	Projected 9/30/2019 **
A. <u>Total Pension Liability (TPL)</u>						
Service Cost	\$ 728,582	\$ 685,630	\$ 760,315	\$ 770,072	\$ 676,144	\$ 710,034
Interest	1,799,225	1,895,631	1,939,254	1,970,862	1,916,514	1,999,871
Benefit Changes	0	0	0	0	(2,507,861)	615,658
Difference Between Actual and Expected Experience	(780,543)	(18,648)	(704,111)	(610,687)	654,544	(720,925)
Assumption Changes	0	0	0	686,077	0	0
Benefit Payments, including Refunds of Member Contributions	(1,205,714)	(1,337,591)	(1,456,540)	(1,727,246)	(1,466,384)	(1,423,251)
Net Change in Total Pension Liability	\$ 541,550	\$ 1,225,022	\$ 538,918	\$ 1,089,078	\$ (727,043)	\$ 1,181,387
Total Pension Liability (TPL) - (beginning of year)	23,244,123	23,785,673	25,010,695	25,549,613	26,638,691	25,911,648
Total Pension Liability (TPL) - (end of year)	<u>\$ 23,785,673</u>	<u>\$ 25,010,695</u>	<u>\$ 25,549,613</u>	<u>\$ 26,638,691</u>	<u>\$ 25,911,648</u>	<u>\$ 27,093,035</u>
B. <u>System Fiduciary Net Position</u>						
Contributions - Employer and State	\$ 943,208	\$ 1,118,829	\$ 1,182,194	\$ 1,262,959	\$ 1,046,237	\$ 572,134
Contributions - Member	90,712	97,124	105,320	111,261	111,835	160,192
Net Investment Income	2,603,632	1,036,070	1,211,993	3,011,138	3,696,996	2,291,733
Benefit Payments, including Refunds of Member Contributions	(1,205,714)	(1,337,591)	(1,456,540)	(1,727,246)	(1,466,384)	(1,423,251)
Administrative Expenses	(51,602)	(58,144)	(53,575)	(65,265)	(90,802)	(78,034)
Other	0	0	0	0	0	0
Net Change in System Fiduciary Net Position	\$ 2,380,236	\$ 856,288	\$ 989,392	\$ 2,592,847	\$ 3,297,882	\$ 1,522,774
System Fiduciary Net Position - (beginning of year)	19,838,578	22,218,814	23,075,102	24,064,494	26,657,341	29,955,223
System Fiduciary Net Position - (end of year)	<u>\$ 22,218,814</u>	<u>\$ 23,075,102</u>	<u>\$ 24,064,494</u>	<u>\$ 26,657,341</u>	<u>\$ 29,955,223</u>	<u>\$ 31,477,997</u>
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 1,566,859	\$ 1,935,593	\$ 1,485,119	\$ (18,650)	\$ (4,043,575)	\$ (4,384,962)
D. <u>System Fiduciary Net Position as a Percentage of TPL: (B) / (A)</u>	93.41 %	92.26 %	94.19 %	100.07 %	115.61 %	116.18 %
E. <u>Covered Employee Payroll ***</u>	\$ 1,912,968	\$ 2,158,300	\$ 2,335,381	\$ 2,472,455	\$ 2,484,983	\$ 2,464,492
F. <u>NPL as a Percentage of Covered Employee Payroll: (C) / (E)</u>	81.91 %	89.68 %	63.59 %	(0.75)%	(162.72)%	(177.93)%

G. Notes to Schedule:

Valuation Date 10/01/2013 10/01/2014 10/01/2015 10/01/2016 10/01/2017 10/01/2018

Update procedures used to roll forward TPL excluding DROP account balances and reserve for excess State funds, if any, to the measurement dates - actual DROP account balances and reserve for excess State funds, if any, as of measurement dates included in TPL

See Table IX, Item III. for a history of benefit and assumption changes prior to fiscal year 2019. See Table X, Item R. for benefit changes during fiscal year 2019. No assumption changes in fiscal year 2019.

* As reported in System's financial statements

** Projected - actual amounts will be available after fiscal year end

*** Reported payroll used to determine contribution as provided under GASB No. 82

Accounting Disclosure Exhibit

IV. Schedule of Employer Contributions (GASB No. 67)

<u>Fiscal Year Ended 9/30</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution ¹</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll ^{2,3}</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2009	\$ 892,182	\$ 926,852	\$ (34,670)	\$ 1,794,158	51.66%
2010	980,834	990,844	(10,010)	1,927,656	51.40%
2011	1,095,042	1,130,593	(35,551)	1,920,441	58.87%
2012	1,109,699	1,194,992	(85,293)	2,101,073	56.88%
2013	1,126,730	1,126,730	0	2,144,794	52.53%
2014	1,183,428	943,208	240,220	1,912,968	49.31%
2015	1,118,829	1,118,829	0	2,158,300	51.84%
2016	1,162,424	1,182,194	(19,770)	2,335,381	50.62%
2017	1,075,632	1,262,959	(187,327)	2,472,455	51.08%
2018	992,658	1,046,237	(53,579)	2,484,983	42.10%
2019 ⁴	572,134	572,134	0	2,464,492	23.22%

¹ Reflects contributions on a cash basis as provided under GASB No. 67

² Projected prior to fiscal year ended September 30, 2014

³ Reported payroll used to determine contribution as provided under GASB No. 82

⁴ Projected - actual amounts will be available after fiscal year end

Accounting Disclosure Exhibit

V. Notes to Schedule of Contributions (GASB No. 67)

Valuation Date: Actuarially determined contributions are calculated as of October 1st - two year(s) prior the fiscal year end in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates for Fiscal Year Ended September 30, 2019:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Amortization Period	30 years
Asset Valuation Method	5-year smoothed
Inflation	2.75%
Salary Increases	5.5% - 8.0%
Investment Rate of Return	7.75%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	For healthy Police Officer participants during employment, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy Police Officer participants post employment, RP 2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, 60% RP 2000 Disabled Male Mortality Table setback four years / 40% RP 2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP 2000 Disabled Female Mortality Table set forward two years / 40% RP 2000 Annuitant Female Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements.
Cost-of-Living Increases	None

Other Information:

Benefit Changes

2017: accrued benefits frozen November 7, 2017; member contributions increased to 6.5%; average final compensation changed to highest three (3) years of the last five (5) years; normal retirement eligibility changed to earlier of attainment of age fifty-two (52) (age fifty (50) if ten (10) or more years of credited service as of November 7, 2017) and the completion of ten (10) years of Credited Service, or the completion of twenty-three (23) years of credited service; early retirement eligibility changed to attainment of age fifty (50) and completion of ten (10) years of credited service; 3.25% accrual rate (future accruals); 3% early retirement reduction factor added; DROP interest crediting rate updated to Fund return (minimum 0%) or fixed return of 1.5% as elected by the Member; supplemental benefit reduced due to insufficiency of State payments effective following January 1st. 2014-2016: supplemental benefit reduced due to insufficiency of State payments effective following January 1st. 2013: participation by Police Chief made optional; supplemental benefit reduced due to insufficiency of State payments effective following January 1st. 2009 - 2012: supplemental benefit reduced due to insufficiency of State payments effective following January 1st.

Accounting Disclosure Exhibit

V. Notes to Schedule of Contributions (GASB No. 67) (cont'd)

Assumption Changes

2017: salary increase factors and assumed retirement age updated. 2016: investment return decreased to 7.75%; mortality assumptions, salary increase factors, employee withdrawal rates and assumed retirement age updated. 2012: mortality assumptions for healthy lives updated to RP-2000 Combined Mortality Table with Blue Collar Adjustment with separate rates for males and females and fully generational mortality improvements projected by Scale AA to each future decrement date; mortality assumption for disabled lives updated to the RP-2000 Disabled Mortality Table with separate rates for males and females and fully generational mortality improvements projected by Scale AA to each future decrement date.

VI. Discount Rate (GASB No. 67)

A discount rate of 7.75% was used to measure the TPL as of September 30, 2019. This discount rate was based on the expected rate of return on System investments of 7.75%. The projection of cash flows used to determine this discount rate assumed member contributions will be made at the current contribution rate and employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member contribution rate. Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future expected benefit payments of current System members. Therefore, the long-term expected rate of return on System investments was applied to all periods of projected benefit payments to determine the TPL.

VII. Sensitivity of the NPL to the Discount Rate Assumption (GASB No. 67)

Measurement date: September 30, 2018

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate	6.75%	7.75%	8.75%
NPL	\$ (1,023,294)	\$ (4,043,575)	\$ (6,564,072)

Measurement date: September 30, 2019 *

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate	6.75%	7.75%	8.75%
NPL	\$ (1,326,270)	\$ (4,384,962)	\$ (6,936,444)

* Projected - actual amounts will be available after fiscal year end

Outline of Principal Provisions of the Retirement System

A. Effective Date:

May 1, 1977 (last amended November 20, 2018 - Ordinance No. 2018-2147).

B. Eligibility Requirements:

An actively employed Police Officer who fulfills the prescribed participation requirements. A new employee who is hired as the Police Chief may elect not to participate in the System.

C. Frozen Benefit:

The benefit structure in effect on November 7, 2017 is frozen at midnight on that date. All Members will be vested in benefits accrued as of November 7, 2017 and payable under the terms and conditions of the benefit structure then in effect.

Additional benefits will accrue in accordance with the new benefit structure as described below.

D. Contributions:

State of Florida: Any monies received or receivable by reason of laws of the State of Florida, for funding and paying for retirement benefits for Police Officers of the City.

Members: 6.5% of Earnings, reduced to equal the City Contribution in any year in which the most recent Actuarial Valuation states that the required City Contribution is less than 6.5% of covered payroll.

City: Remaining amount necessary for payment of the total cost for the year as determined in the most recent Actuarial Valuation. However, in any year in which the results of the most recent Actuarial Valuation requires City Contributions of less than 6.5% of covered payroll, then the City Contribution and Member contribution shall be shared equally.

E. Credited Service:

Total number of years and fractional parts of years of service as a Police Officer with Member contributions to the System, omitting intervening years or fractional parts of years when such Member was not employed by the City as a Police Officer. A Member who terminates employment and leaves his contributions in the Fund and is reemployed within five years will receive credit for service prior to his date of termination. A Member may receive credit for military service and prior police service under certain circumstances.

Outline of Principal Provisions of the Retirement System

F. Average Final Compensation (AFC):

For years of Credited Service earned prior to November 8, 2017:

One-twelfth of W-2 compensation plus any tax deferral elective deductions or salary reductions paid during the highest year of the final three (3) years of Credited Service (not less than the average over the five (5) best years of the last ten (10) years) immediately preceding November 8, 2017. In the final year of service prior to November 8, 2017 a Member may be paid 100% of accrued vacation and 50% of accrued sick leave up to 96 hours.

For years of Credited Service earned on or after November 8, 2017:

One-twelfth of total cash remuneration paid by the City for services rendered paid during the highest three (3) years of the last five (5) years of Credited Service immediately preceding the retirement, termination or death of a Member. Salary excludes overtime in excess of 300 hours per year and accrued unused sick or annual leave.

G. Regular Base Salary (RBS):

The Member's hourly rate times two thousand-eighty (2,080) hours.

H. Normal Retirement:

1. Eligibility:

For Members with ten (10) or more years of credited service as of November 7, 2017:

Attainment of age fifty (50) and completion of ten (10) years of Credited Service.

For Members with less than ten (10) years of credited service as of November 7, 2017:

Earlier of (a) attainment of age fifty-two (52) and completion of ten (10) years of Credited Service or (b) completion of twenty-three (23) years of Credited Service.

Frozen benefit as of November 7, 2017 may be paid upon attainment of age fifty (50) and completion of ten (10) years of Credited Service.

2. Benefit:

3.5% of AFC times years of Credited Service through November 7, 2017; 3.25% of AFC times years of Credited Service on or after November 8, 2017 (maximum benefit - 75% of AFC; minimum benefit - 2% of AFC times years of Credited Service) payable for ten (10) years certain and life thereafter. An optional form of benefit may be elected by a Member.

In addition to the benefit above, Members will receive an additional supplemental benefit.

Outline of Principal Provisions of the Retirement System

I. **Early Retirement:**

1. **Eligibility:**

For Members with ten (10) or more years of credited service as of November 7, 2017:

Completion of twenty (20) years of Credited Service.

For Members with less than ten (10) years of credited service as of November 7, 2017:

Attainment of age fifty (50) and completion of ten (10) years of Credited Service.

Frozen benefit as of November 7, 2017 may be paid upon completion of twenty (20) years of Credited Service.

2. **Benefit:**

The accrued benefit based upon AFC and Credited Service determined as of the Early Retirement Date payable immediately. For participants with less than ten (10) years of credited service as of November 7, 2017, the portion of the accrued benefit for years of Credited Service on or after November 8, 2017 is actuarially reduced, but not more than 3% reduction for each year early retirement date precedes normal retirement date.

J. **Service Connected Disability Benefit:**

1. **Eligibility:**

Service connected injury, disease or disability which permanently incapacitates a Member from performing Police Officers' duties. Eligible for benefits from date of employment.

2. **Benefit:**

60% of RBS payable monthly for life or prior recovery. In addition, Members will receive an additional supplemental benefit. Minimum disability benefit is the greatest of 42% of AFC, 2% of AFC times years of Credited Service and 3.5% of RBS times years of Credited Service through November 7, 2017 plus 3.25% of RBS times years of Credited Service on or after November 8, 2017, not to exceed 75% of RBS. Upon death, the benefit will be continued in the same manner provided for under Service Incurred Preretirement Death Benefit, but provided further that the benefit, except for the additional supplemental benefit, shall be payable for a minimum of 120 monthly payments.

Benefits may be reduced for Workers' Compensation benefits, Social Security disability benefits and disability benefits from another employer for the same disability. In no event shall the benefit be reduced below the greater of 42% of AFC and 2% of AFC times years of Credited Service.

K. **Non-Service Connected Disability Benefit:**

1. **Eligibility:**

Non-service connected injury, disease or disability which permanently incapacitates a Member from performing Police Officers' duties after completing one year of Credited Service.

Outline of Principal Provisions of the Retirement System

K. **Non-Service Connected Disability Benefit (cont'd):**

2. **Benefit:**

Members prior to October 20, 1994 (including those who received Credited Service for periods prior to October 20, 1994), 30% of RBS payable monthly for life or prior recovery plus an additional monthly supplemental benefit. Minimum disability benefit after ten (10) years of Credited Service is the greatest of 25% of AFC, 2% AFC times years of Credited Service, and 3.5% of RBS times years of Credited Service through November 7, 2017 plus 3.25% of RBS times years of Credited Service on or after November 8, 2017, not to exceed 75% of RBS.

Members eligible on or after October 20, 1994 receive a benefit equal to 5% of RBS times years of Credited Service not to exceed 30% of RBS payable monthly for life or prior recovery plus an additional monthly supplemental benefit. Minimum disability benefit for a Member after ten (10) years of Credited Service is the greatest of 25% of AFC, 2% of AFC times years of Credited Service and 3.5% of RBS times years of Credited Service through November 7, 2017 plus 3.25% of RBS times years of Credited Service on or after November 8, 2017, not to exceed 75% of RBS. The benefit, except for the supplemental benefit, shall be payable for a minimum of 120 payments or prior recovery.

Benefits may be reduced for Workers' Compensation benefits, Social Security disability benefits and disability benefits from another employer for the same disability. In no event shall the benefit after ten (10) years of Credited Service be reduced below 25% of AFC or 2% of AFC times years of Credited Service.

L. **Service Incurred Preretirement Death Benefit:**

1. **Eligibility:**

Eligible for benefits from date of employment.

2. **Benefit:**

60% of RBS in effect on date of death plus an additional monthly supplemental benefit payable to the spouse until death. If no spouse, or upon death of the spouse, 15% of RBS payable to each unmarried child until age 18 (or to age 22, if enrolled in school); total maximum for all such children is 60% of RBS. Eligible children shall also share equally in the applicable additional monthly supplemental benefit. If no surviving spouse or eligible children, the designated beneficiary will receive 100% of the Member's accumulated contributions.

M. **Non-Service Incurred Preretirement Death Benefit:**

1. **Eligibility:**

Five (5) years of Credited Service.

Outline of Principal Provisions of the Retirement System

M. Non-Service Incurred Preretirement Death Benefit (cont'd):

2. Benefit:

30% of RBS in effect on date of death plus an additional monthly supplemental benefit payable to the spouse until remarriage or death. If no spouse, or upon remarriage or death, 7.5% of RBS payable to each unmarried child until age 18 (or to age 22, if enrolled in school); total maximum for all such children of 30% of RBS. Eligible children shall also share equally in the applicable additional monthly supplemental benefit. If no surviving spouse or eligible children, the designated beneficiary will receive 100% of the Member's accumulated contributions.

With less than five (5) years of Credited Service, refund of 100% of the Member's accumulated contributions.

N. Minimum Preretirement Death Benefit:

If the Member was vested, but not eligible for Early or Normal Retirement, the beneficiary is entitled to the benefits otherwise payable at Early or Normal Retirement, and shall receive the benefit payable monthly for ten (10) years certain.

O. Termination Benefits:

A Member who has completed less than ten (10) years of Credited Service will receive a refund of his accumulated contributions. A Member who has completed ten (10) years of Credited Service who does not withdraw his accumulated contributions will receive his accrued benefit based upon his AFC and years of Credited Service as of his date of termination payable at his Normal Retirement Date. Upon death prior to Normal Retirement Date, his beneficiary will be entitled to benefits as provided under Non-service Incurred Preretirement Death Benefits.

A Member of the plan with a frozen accrued benefit as of November 7, 2017 who does not withdraw his accumulated contributions is 100% vested in the frozen accrued benefit payable under the provisions of the prior Plan.

P. Deferred Retirement Option Plan (DROP):

1. Eligibility: Eligible for normal retirement.
2. The maximum period of participation in the DROP is sixty (60) months.
3. For Members entering the DROP prior to November 8, 2017, the Member's account in the DROP program shall be credited with interest based upon a fixed return of 6.5%. For Members entering the DROP on or after November 8, 2017, the Member's account in the DROP program shall be credited with interest based upon a fixed return of 1.5%. In lieu of the fixed return, a Member may elect for their account in the DROP program to be credited with interest based upon the actual net return of the Fund, but not less than 0%.

Outline of Principal Provisions of the Retirement System

P. Deferred Retirement Option Plan (DROP) (cont'd):

4. For Members entering the DROP prior to November 8, 2017, the Member may elect to change the interest crediting option twice during his DROP participation. For Members entering the DROP on or after November 8, 2017, the Member's interest crediting election upon DROP entry is irrevocable.
5. No payment may be made from DROP until the employee actually separates from service with the City.

Q. Supplemental Benefit:

Members prior to October 20, 1994 (including those who received Credited Service for periods prior to October 20, 1994) - an additional monthly supplemental benefit of \$400 is payable.

Members eligible on or after October 20, 1994 - the additional monthly supplemental benefit is \$200.

For Members who retire on or after October 1, 2004 - the additional monthly supplemental benefit is increased to \$500. This increase in the supplemental benefit shall be funded from the annual state monies received by the Plan in excess of \$248,077. The maximum additional state monies that can be used in each year for this benefit enhancement is \$37,082. To the extent that actual state monies received in any year are less than \$285,159, the prospective supplemental benefit on the following January 1st shall be reduced to a level that the annual state monies can fully fund. This adjusted supplemental benefit cannot be reduced below the current monthly supplemental benefit of \$400 for Members hired prior to October 20, 1994 and \$200 for Members hired on or after October 20, 1994. Any reductions in supplemental benefits will not affect the supplemental benefits prior to that date.

The additional supplemental benefit is payable for the life of the Member, except that if the Member elects a joint and survivor option and the surviving spouse of the Member or the Member's child is the joint pensioner, the entire additional supplemental benefit shall be paid for the life of the surviving spouse or until the child reaches the age of 18 (or 22, if enrolled in school).

R. Changes From Previous Valuation (included in Actuarial Impact Statement):

1. Normal Retirement Eligibility was:

For Members with ten (10) or more years of credited service as of November 7, 2017:

Earlier of (a) attainment of age fifty (50) and completion of ten (10) years of Credited Service or (b) completion of twenty-three (23) years of Credited Service.

For Members with less than ten (10) years of credited service as of November 7, 2017:

Earlier of (a) attainment of age fifty-two (52) and completion of ten (10) years of Credited Service or (b) completion of twenty-three (23) years of Credited Service.

Frozen benefit as of November 7, 2017 may be paid upon attainment of age fifty (50) and completion of ten (10) years of Credited Service.

Outline of Principal Provisions of the Retirement System

R. Changes From Previous Valuation (included in Actuarial Impact Statement) (cont'd):

2. Early Retirement was:

1. Eligibility:

Attainment of age fifty (50) and completion of ten (10) years of Credited Service.

Frozen benefit as of November 7, 2017 may be paid upon completion of twenty (20) years of Credited Service.

2. Benefit:

The accrued benefit based upon AFC and Credited Service determined as of the Early Retirement Date payable immediately. The portion of the accrued benefit for years of Credited Service on or after November 8, 2017 is actuarially reduced, but not more than 3% reduction for each year early retirement date precedes normal retirement date.

3. Supplemental Benefits were:

Actual State monies received during the fiscal year ended September 30, 2018 were less than \$285,159, therefore we understand the supplemental benefit to be paid in 2019 will be reduced to \$400 for Members hired prior to October 20, 1994 and \$200 for Members hired on or after October 20, 1994.

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

A. Mortality

For healthy Police Officer participants during employment, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy Police Officer participants post employment, RP 2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, 60% RP 2000 Disabled Male Mortality Table setback four years / 40% RP 2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP 2000 Disabled Female Mortality Table set forward two years / 40% RP 2000 Annuitant Female Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements.

Sample Ages (2018)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Men	Women	Men	Women
	55	29.84	32.60	29.33
60	24.96	27.56	24.76	27.41
62	23.09	25.59	22.97	25.49

Sample Ages (2038)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Men	Women	Men	Women
	55	32.06	34.54	31.57
60	27.21	29.49	27.03	29.36
62	25.34	27.51	25.23	27.42

B. Interest to be Earned by Fund

7.75%, compounded annually, net of investment expense - includes inflation at 2.75%.

C. Allowances for Expenses or Contingencies

Average of two previous years' actual administrative expense.

**Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation**

D. Employee Withdrawal Rates

Withdrawal rates for males and for females were used in accordance with the following illustrative example:

<u>Service</u>	<u>Withdrawal Rates</u>
0 - 3	6.5%
3 - 10	4.5%
10 & Over	0.5%

E. Disability Rates

Disability rates for males and for females were used in accordance with the following illustrative example:

<u>Age</u>	<u>Disability Rates Per 100 Members</u>	<u>Age</u>	<u>Disability Rates Per 100 Members</u>
20	0.14	45	0.51
25	0.15	50	1.00
30	0.18	55	1.55
35	0.23	60 & Over	0.00
40	0.30		

F. Salary Increase Factors

Current salary was assumed to increase at a rate based on the table below per year until retirement - includes wage inflation of 3.75%.

<u>Years of Service / Age</u>	<u>Salary Increase</u>
<u>Under 5 Yrs:</u>	
Under Age 30	8.0%
Age 30 & Up	6.0%
<u>5 or more Yrs:</u>	
All Ages	5.5%

Extra-ordinary pay, such as for overtime, in the final averaging period is assumed to add 5% to the average final compensation.

**Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation**

G. Assumed Retirement Age

Rates of retirement were used in accordance with the following table:

<u>Years of Service</u>	<u>Retirement Rates</u>
<u>Ages ≥ 50</u>	
10 - 14	20%
15 - 22	50%

For Members with ten (10) or more years of Credited Service as of November 7, 2017, 100% of Members are assumed to retire upon completion of twenty (20) years of service.

For Members with less than ten (10) years of Credited Service as of November 7, 2017, 100% of Members are assumed to retire upon completion of twenty-three (23) years of service.

However, all active Members on the valuation date are assumed to have a minimum of one year of future service.

H. Disability Benefits

No offset was assumed for potential Workers' Compensation benefits, Social Security disability benefits or other disability benefits attributable to employment with another employer for the same disability.

I. Form of Payment

For purposes of the supplemental benefit, the joint and survivor form is assumed to be elected.

J. Valuation of Assets

The actuarial value of assets is determined by smoothing earnings in excess of or less than the assumed return over five years.

K. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Normal Cost Method.

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his entry age to his assumed retirement age to fund his estimated benefits, assuming the System had always been in effect. The normal cost for the System is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the System is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the actuarial value of assets of the System.

**Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation**

L. Marital Assumption

Females are assumed to be three (3) years younger than their male spouses. Eighty percent (80%) of active Members are assumed to be married at benefit commencement.

M. Changes From Previous Valuation (Included in Actuarial Impact Statement)

Assumed Retirement Age was:

Rates of retirement were used in accordance with the following table:

<u>Years of Service</u>	<u>Retirement Rates</u>
	<u>Ages ≥ 50</u>
10 - 14	20%
15 - 22	50%

100% of Members are assumed to retire upon completion of twenty-three (23) years of service.

However, all active Members on the valuation date are assumed to have a minimum of one year of future service.

**Distribution by Attained Age Groups
and Service Groups as of October 1, 2018**

<u>Attained Age Group</u>	-----COMPLETED YEARS OF SERVICE-----							<u>Total</u>
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30 & Over</u>	
Under 25	1	-	-	-	-	-	-	1
25-29	9	1	-	-	-	-	-	10
30-34	5	3	1	-	-	-	-	9
35-39	4	-	2	1	-	-	-	7
40-44	-	2	2	2	-	-	-	6
45-49	1	3	-	1	1	-	-	6
50-54	-	-	1	-	-	-	-	1
55-59	-	-	-	-	-	-	-	0
60-64	-	-	-	-	-	-	-	0
65 & Over	-	-	-	-	-	-	-	0
TOTAL	20	9	6	4	1	0	0	40
				<u>10/01/2017</u>		<u>10/01/2018</u>		
Average Pay				\$ 60,455		\$ 61,612		
Average Attained Age				35.1 years		35.4 years		
Average Service				6.1 years		6.6 years		
Percent Female				12.2%		10.0%		

**Statistics for Participants Entitled to Deferred Benefits
and Participants Receiving Benefits**

A. Entitled to Deferred Benefits

Current Age Group	<u>Count</u>	Total Annual <u>Benefit</u>	Average Annual <u>Benefit</u>	Average Age at Date Benefits <u>Commence</u>
Less than 30	-	-	-	-
30 - 34	-	-	-	-
35 - 39	-	-	-	-
40 - 44	3	117,460	39,153	50.0
45 - 49	2	66,113	33,057	50.0
50 & Over	-	-	-	-
TOTAL	<u>5</u>	<u>183,573</u>	36,715	50.0

B. Receiving Benefits (including DROPs)

Current Age Group	<u>Count</u>	Total Annual <u>Benefit</u>	Average Annual <u>Benefit</u>	Average Age at Date Benefits <u>Commenced</u>
Less than 50	2	91,295	45,648	39.6
50 - 54	5	258,778	51,756	47.9
55 - 59	8	347,594	43,449	47.1
60 - 64	7	294,965	42,138	49.1
65 - 69	5	124,594	24,919	48.5
70 - 74	7	175,584	25,083	50.5
75 - 79	5	141,294	28,259	49.9
80 & Over	3	60,885	20,295	50.9
TOTAL	<u>42</u>	<u>1,494,989</u>	35,595	48.5

Reconciliation of Employee Data

A. <u>Active Participants</u>	
1. Active participants previous year	41
2. Retired during year	0
3. Entered DROP during year	0
4. Died during year	0
5. Disabled during year	0
6. Terminated during year	(6)
7. New active participants	5
8. Active participants current year	<u>40</u>
B. <u>Participants Receiving Benefits</u>	
1. Participants receiving benefits previous year	41
2. New retired participants	0
3. New terminated vested receiving benefits	0
4. New disabled receiving benefits	0
5. New beneficiaries receiving benefits	0
6. Former DROP now receiving benefits	0
7. Died or ceased payment during year	(1)
8. Retired or terminated vested receiving benefits current year	<u>40</u>
C. <u>DROP Participants</u>	
1. DROP participants previous year	2
2. Died during year	0
3. Became disabled during year	0
4. Employment terminated and retired during year	0
5. Entered DROP during year	0
6. DROP participants current year	<u>2</u>
D. <u>Terminated Vested Participants Entitled to Future Benefits</u>	
1. Terminated vested entitled previous year	5
2. Died during year	0
3. Commenced receiving benefits during year	0
4. New terminated vested	0
5. Terminated vested paid lump sum	0
6. Terminated vested entitled current year	<u>5</u>

Projected Retirement Benefits

<u>Fiscal Year</u>	<u>Projected Total Annual Payout</u>
2019	1,423,251
2020	1,681,573
2021	1,731,807
2022	1,919,817
2023	1,957,155
2024	1,972,726
2025	2,169,358
2026	2,376,697
2027	2,444,174
2028	2,462,921

The above projected payout of system benefits during the next ten years is based on assumptions involving all decrements. The actual payouts may differ from the above estimates depending upon the death, salary and retirement experience of the system. However, since the projected payment is recomputed each valuation date, there is an automatic correction to the extent that actual experience varies from expected experience.

Review of Salary and Termination Experience**A. Recent Salary Experience ***

<u>Year Ended</u>	<u>% Increase</u>	<u>Assumed Increase</u>
09/30/2018	0.9%	6.0%
09/30/2017	6.5%	6.1%
09/30/2016	4.5%	6.5%
09/30/2015	5.0%	6.5%
09/30/2014	2.7%	6.5%
09/30/2013	5.5%	6.5%
09/30/2012	4.4%	6.5%
09/30/2011	5.8%	6.5%
09/30/2010	1.3%	6.5%
09/30/2009	2.8%	6.5%
Last 3 Years	3.9%	6.2%
Last 5 Years	3.9%	6.3%
Last 10 Years	3.9%	6.4%

* Participants who have full years of pay for both years considered.

B. Recent Termination Experience

<u>Year Ended</u>	<u>Number of Employees Previous Valuation</u>	<u>Expected * Terminations</u>	<u>Actual Terminations</u>	<u>Ratio of Actual To Expected</u>
09/30/2018	41	1.7	6	3.5
09/30/2017	38	1.5	5	3.3
09/30/2016	38	1.4	4	2.9
09/30/2015	33	1.2	3	2.5
09/30/2014	35	1.2	3	2.5
09/30/2013	36	1.2	6	5.0
09/30/2012	35	1.1	3	2.7
09/30/2011	33	1.2	0	0.0
09/30/2010	33	1.2	1	0.8
09/30/2009	31	1.1	1	0.9
Last 3 Years	117	4.6	15	3.3
Last 5 Years	185	7.0	21	3.0
Last 10 Years	353	12.8	32	2.5

* Based upon expected rates of termination used in completing the previous valuation.

Analysis of Investment Yield as of October 1, 2018

This Table sets forth the results of an analysis made of investment yields on the assets held under the New Port Richey Police Officers' Retirement System.

The basic sources for this analysis were the Statements produced by the System Auditors.

The basic data was initially checked for internal consistency. Since no difficulties were encountered with the data, yield rates were calculated directly from the transaction information submitted. A summary of the transaction information is set forth on the following page.

**Table XVII
(Cont'd)**

Summary of Transaction Information

Fiscal Year Ended	Benefits Paid ¹	Expenses	Employee Contributions	City Contributions	Total State Contributions	Market Value ^{2,3}
9/30/2018	\$ 1,466,384	\$ 254,468	\$ 111,835	\$ 809,318	\$ 236,919	\$ 29,694,547
9/30/2017	1,727,246	206,796	111,261	1,038,318	224,641	26,450,244
9/30/2016	1,456,540	181,647	105,320	984,731	197,463	24,044,724
9/30/2015	1,337,591	192,834	97,124	930,808	188,021	23,074,302
9/30/2014	1,205,714	185,348	90,712	765,515	177,693	22,218,814
9/30/2013	1,259,927	136,765	90,622	931,689	195,041	19,600,297
9/30/2012	1,172,101	143,776	95,846	994,249	200,743	17,138,671
9/30/2011	1,147,374	144,421	92,998	907,497	223,096	14,268,174
9/30/2010	1,132,758	146,396	90,286	775,498	215,346	14,303,251
9/30/2009	1,080,775	118,151	84,868	682,396	244,456	12,761,231
9/30/2008	1,081,555	140,497	81,446	667,855	299,352	12,273,672
9/30/2007	1,023,967	148,320	75,177	577,387	299,490	15,065,417
9/30/2006	889,360	123,709	73,019	402,579	305,875	13,484,181
9/30/2005	810,834	130,767	70,581	226,682	299,352	12,501,079
9/30/2004	674,947	116,280	151,412	246,249	311,552	11,856,796
9/30/2003	558,393	96,156	124,451	288,037	281,193	11,092,704
9/30/2002	559,044	93,589	65,521	109,194	255,457	9,530,611
9/30/2001	494,098	102,424	58,621	71,361	223,110	10,552,703
9/30/2000	493,442	101,996	32,611	48,379	226,843	11,678,350
9/30/1999	454,265	72,160	33,968	23,805	237,446	10,880,461

¹ Effective with fiscal year ended September 30, 2013, includes DROP distributions (previously included DROP benefit credits)

² Effective with fiscal year ended September 30, 2013, includes reserve for excess State funds, if any

³ Net of credit balance, if any

**Table XVII
(Cont'd)**

Recent Plan Experience

<u>Valuation Date</u>	<u>Actuarial Assumed Investment Return</u>	<u>Market Value Return</u>	<u>Smoothed Actuarial Value Return</u>
October 1, 2018	7.75%	13.97%	9.79%
October 1, 2017	7.75%	12.62%	9.19%
October 1, 2016	8.0%	5.3%	10.5%
October 1, 2015	8.0%	4.7%	10.6%
October 1, 2014	8.0%	13.2%	12.2%
October 1, 2013	8.0%	14.0%	10.5%
October 1, 2012	8.0%	19.7%	3.3%
October 1, 2011	8.0%	(0.2%)	2.1%
October 1, 2010	8.0%	12.5%	3.0%
October 1, 2009	8.0%	5.1%	2.2%
Last 3 Years	7.8%	10.6%	9.8%
Last 5 Years	7.9%	9.9%	10.5%
Last 10 Years	8.0%	9.9%	7.3%

Employer Contribution Information

<u>Valuation Date</u>	<u>Contribution Fiscal Year End</u>	<u>Minimum Required Employer Contributions</u>	<u>Actual Employer Contributions Made</u>
10/01/2018	09/30/2020	\$ 627,876	N/A
10/01/2017	09/30/2019	\$ 572,134	N/A
10/01/2016	09/30/2018	\$ 992,658	\$ 1,046,237
10/01/2015	09/30/2017	\$ 1,075,632	\$ 1,262,959
10/01/2014	09/30/2016	\$ 1,162,424	\$ 1,182,194
10/01/2013	09/30/2015	\$ 1,118,829	\$ 1,118,829
10/01/2012	09/30/2014	\$ 1,183,428	\$ 943,208 *
10/01/2011	09/30/2013	\$ 1,126,730	\$ 1,126,730
10/01/2010	09/30/2012	\$ 1,109,699	\$ 1,194,992
10/01/2009	09/30/2011	\$ 1,095,042	\$ 1,130,593
10/01/2008	09/30/2010	\$ 980,834	\$ 990,844
10/01/2007	09/30/2009	\$ 892,182	\$ 926,852
10/01/2006	09/30/2008	\$ 918,628	\$ 953,014
10/01/2005	09/30/2007	\$ 822,236	\$ 862,546
10/01/2004	09/30/2006	\$ 650,656	\$ 687,738
10/01/2003	09/30/2005	\$ 474,759	\$ 474,759
10/01/2003	09/30/2004	\$ 474,759	\$ 494,326

* Excludes use of credit balance (\$240,220)

Actuarial Valuation as of October 1, 2018**State Required Exhibit**

	Actuarial Impact Statement	
	<u>10/01/2017</u>	<u>10/01/2018</u>
A. <u>Participant Data</u>		
1. Active participants	41	40
2. Retired participants and beneficiaries receiving benefits	37	37
3. DROP participants	2	2
4. Disabled participants receiving benefits	4	3
5. Terminated vested participants	5	5
6. Annual payroll of active participants	\$ 2,478,660	\$ 2,464,492
7. Annual benefits payable to those currently receiving benefits	\$ 1,424,987	\$ 1,412,749
8. Annual benefits payable to DROP participants	\$ 82,240	\$ 82,240
B. <u>Value of Assets</u>		
1. Smoothed actuarial value of assets	\$ 25,984,684	\$ 28,077,132
2. Net market value of assets	\$ 26,450,244	\$ 29,694,547
C. <u>Liabilities</u>		
1. Actuarial present value of future expected benefit payments for active members		
a. Retirement benefits	\$ 11,157,697	\$ 11,653,929
b. Vesting benefits	385,539	347,470
c. Death benefits	166,577	163,293
d. Disability benefits	683,430	671,312
e. Total	<u>\$ 12,393,243</u>	<u>\$ 12,836,004</u>
2. Actuarial present value of future expected benefit payments for terminated vested members	\$ 1,373,433	\$ 1,485,554
3. Actuarial present value of future expected benefit payments for members currently receiving benefits		
a. Service retired	\$ 14,905,955	\$ 14,748,139
b. DROP participants	1,182,072	1,266,887
c. Disability retired	974,520	874,103
d. Beneficiaries	329,389	325,110
e. Miscellaneous (Refunds in process)	12,000	26,581
f. Total	<u>\$ 17,403,936</u>	<u>\$ 17,240,820</u>

Actuarial Valuation as of October 1, 2018

State Required Exhibit

	Actuarial Impact Statement	
	<u>10/01/2017</u>	<u>10/01/2018</u>
4. Total actuarial present value of future expected benefit payments	\$ 31,170,612	\$ 31,562,378
5. Actuarial accrued liabilities	\$ 25,333,845	\$ 25,806,381
6. Unfunded actuarial accrued liabilities	\$ (650,839)	\$ (2,270,751)
D. <u>Statement of Accumulated Plan Benefits</u>	Actuarial Valuation	
1. Actuarial present value of accumulated vested benefits		
a. Participants currently receiving benefits	\$ 16,209,864	\$ 15,947,352
b. DROP participants	1,182,072	1,266,887
c. Other participants	6,572,970	7,919,429
d. Total	<u>\$ 23,964,906</u>	<u>\$ 25,133,668</u>
2. Actuarial present value of accumulated non-vested plan benefits	<u>628,220</u>	<u>633,941</u>
3. Total actuarial present value of accumulated plan benefits	\$ 24,593,126	\$ 25,767,609
E. <u>Statement of Change in Accumulated Plan Benefits</u>		
1. Actuarial present value of accumulated plan benefits as of October 1, 2017		\$ 24,593,126
2. Increase (decrease) during year attributable to:		
a. Plan amendment		\$ 706,477
b. Change in actuarial assumptions		0
c. Benefits paid including refunds & DROPs		(1,466,384)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period		1,934,390
e. Net increase		<u>\$ 1,174,483</u>
3. Actuarial present value of accumulated plan benefits as of October 1, 2018		\$ 25,767,609

Actuarial Valuation as of October 1, 2018

State Required Exhibit

	Actuarial Impact Statement	
	<u>10/01/2017</u>	<u>10/01/2018</u>
F. <u>Pension Cost</u>		
1. Total normal cost	\$ 759,353	\$ 788,068
2. Payment required to amortize unfunded liability	(52,393)	(183,611)
3. Interest adjustment	30,562	26,968
4. Total preliminary required contribution	\$ 737,522	\$ 631,425
5. Total required contribution (Greater of F.1. and F.4.)	\$ 759,353	\$ 788,068
6. Item 5 as a percentage of payroll	30.6%	32.0%
7. Estimated Member contributions	\$ 161,113	\$ 160,192
8. Item 7 as a percentage of payroll	6.5%	6.5%
9. Estimated State contributions	\$ 224,641	\$ 236,919
10. Item 9 as a percentage of payroll	9.1%	9.6%
11. Net amount payable by City	\$ 373,599	\$ 390,957
12. Item 11 as a percentage of payroll	15.1%	15.9%
G. <u>Past Contributions</u>		
1. Total contribution required (Prior Year Valuation)*	\$ 1,104,493	\$ 732,326
2. Actual contributions made:		
a. Members	\$ 111,835	N/A
b. City	809,318	N/A
c. State	236,919	N/A
d. Total	\$ 1,158,072	N/A
H. <u>Net Actuarial Gain / (Loss)</u>	\$ (379,086)	\$ 1,151,197

* Based on percent of actual / expected covered payroll

Actuarial Valuation as of October 1, 2018

State Required Exhibit

**Actuarial
Impact Statement**
10/01/2017 **10/01/2018**

I. **Disclosure of Following Items:**

1. Actuarial present value of future salaries - attained age	\$	19,750,285	\$	19,177,789
2. Actuarial present value of future employee contributions - attained age	\$	1,283,769	\$	1,246,556
3. Actuarial present value of future contributions from other sources		N/A		N/A
4. Amount of active members' accumulated contributions	\$	644,495	\$	695,840
5. Actuarial present value of future salaries and future benefits at entry age		N/A		N/A
6. Actuarial present value of future employee contributions at entry age		N/A		N/A


State Required Exhibit

	<u>Unfunded Actuarial Accrued Liabilities</u>	<u>Current Unfunded Liabilities</u>	<u>Amortization Payment</u>	<u>Remaining Funding Period</u>
10/01/2017	Combined Bases *	\$ (1,991,257)	\$ (161,795)	29 years
10/01/2017	System Amendment	909,852	73,928	29 years
10/01/2018	Actuarial (Gain) / Loss including Supplemental Benefit Adjustment	<u>(1,189,346)</u>	<u>(95,744)</u>	30 years
	TOTAL	\$ (2,270,751)	\$ (183,611)	

* Combined per Internal Revenue Code Regulation 1.412(b)-1 - 30-year for resulting combined credit base

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 other wise provided for in the valuation. All known events or trends which may require material increase in plan costs or required contribution rates have been taken into account in the valuation.

Enrollment Number: 17-02802
Dated: March 8, 2019



Lawrence F. Wilson, A.S.A., E.A., M.A.A.A.

Glossary

Actuarial Accrued Liability. The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

Actuarial Assumptions. Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.

Actuarial Cost Method. Actuarial Cost Method A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.

Actuarial Equivalent. Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value of Future Benefits. The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation. The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.

Actuarial Value of Assets. The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

Amortization Method. A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

Glossary

Amortization Payment. That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Amortization Period. The period used in calculating the Amortization Payment.

Annual Required Contribution. The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.

Closed Amortization Period. A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

Employer Normal Cost. The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

Equivalent Single Amortization Period. For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

Experience Gain/Loss. A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

Funded Ratio. The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

GASB. Governmental Accounting Standards Board.

Glossary

GASB No. 67 and GASB No. 68. These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.

Normal Cost. The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

Open Amortization Period. An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability. The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

Valuation Date. The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.