

CITY OF PALM BAY  
POLICE AND FIREFIGHTERS' PENSION FUND  
(General Employees)

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018

CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2020

GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2018



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

May 1, 2019

Board of Trustees  
City of Palm Bay Police & Firefighters' Pension Fund  
Conlan Professional Center  
1501 Robert J. Conlan Blvd. NE Suite 260  
Palm Bay, FL 32905-3567

Re: City of Palm Bay  
Police and Firefighters' Pension Fund (General Employees)

Dear Board of Trustees:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Palm Bay Police and Firefighters' Pension Fund (General Employees). Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapter 112, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Palm Bay, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the

information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2018 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

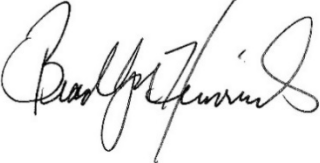
The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


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

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

Respectfully submitted,

Foster & Foster, Inc.

By:   
Bradley R. Heinrichs, FSA, EA, MAAA  
Enrolled Actuary #17-6901

  
Patrick T. Donlan, ASA, EA, MAAA  
Enrolled Actuary #17-6595

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Palm Bay Police and Firefighters' Pension Fund (General Employees), performed as of October 1, 2018, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2020.

The contribution requirements, compared with those set forth in the October 1, 2017 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2018 <u>9/30/2020</u>	10/1/2017 <u>9/30/2019</u>
Total Required Contribution	\$0	\$0
% of Projected Annual Payroll	0.0%	0.0%

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

There have been no changes of actuarial assumptions or methods since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>		
Actives	0	0
Service Retirees	1	1
Beneficiaries	1	1
Disability Retirees	0	0
Terminated Vested	<u>0</u>	<u>0</u>
 Total	 2	 2
 Total Annual Payroll	 \$0	 \$0
Payroll Under Assumed Ret. Age	0	0
 Annual Rate of Payments to:		
Service Retirees	1,583	1,583
Beneficiaries	2,532	2,532
Disability Retirees	0	0
Terminated Vested	0	0
 <b>B. Assets</b>		
Actuarial Value (AVA)	191,484	185,244
Market Value (MVA)	199,099	189,302
 <b>C. Liabilities</b>		
<b>Present Value of Benefits</b>		
Actives		
Retirement Benefits	0	0
Disability Benefits	0	0
Death Benefits	0	0
Vested Benefits	0	0
Refund of Contributions	0	0
Service Retirees	5,982	6,277
Beneficiaries	15,182	15,804
Disability Retirees	0	0
Terminated Vested	<u>0</u>	<u>0</u>
 Total	 21,164	 22,081

C. Liabilities - (Continued)	<u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	0	0
Present Value of Future Member Contributions	0	0
Total Normal Cost	0	0
Present Value of Future Normal Costs (EAN)	0	0
Accrued Liability (Retirement)	0	0
Accrued Liability (Disability)	0	0
Accrued Liability (Death)	0	0
Accrued Liability (Vesting)	0	0
Accrued Liability (Refunds)	0	0
Accrued Liability (Inactives)	<u>21,164</u>	<u>22,081</u>
Total Actuarial Accrued Liability (EAN AL)	21,164	22,081
Total Actuarial Accrued Liability (Aggregate)	191,484	185,244
Unfunded Actuarial Accrued Liability (UAAL)	0	0
Funded Ratio (AVA / EAN AL)	904.8%	838.9%



D. Actuarial Present Value of Accrued Benefits	<u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits		
Inactives	21,164	22,081
Actives	0	0
Member Contributions	<u>0</u>	<u>0</u>
Total	21,164	22,081
Non-vested Accrued Benefits	<u>0</u>	<u>0</u>
Total Present Value Accrued Benefits (PVAB)	21,164	22,081
Funded Ratio (MVA / PVAB)	940.7%	857.3%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
New Accrued Benefits	1,646	
Benefits Paid	(4,115)	
Interest	1,552	
Other	<u>0</u>	
Total	(917)	

Valuation Date Applicable to Fiscal Year Ending	10/1/2018 <u>9/30/2020</u>	10/1/2017 <u>9/30/2019</u>
E. Pension Cost		
Normal Cost		
% of Total Annual Payroll	0.00	0.00
Administrative Expenses		
% of Total Annual Payroll	0.00	0.00
Payment Required to Amortize Unfunded Actuarial Accrued Liability (as of 10/1/2018)		
% of Total Annual Payroll	0.00	0.00
Total Required Contribution		
% of Total Annual Payroll	0.00	0.00
Expected Member Contributions		
% of Total Annual Payroll	0.00	0.00
Expected City Contribution		
% of Total Annual Payroll	0.00	0.00
F. Past Contributions		
Plan Years Ending:	<u>9/30/2018</u>	
Total Required Contribution	0	
City Requirement	0	
Actual Contributions Made:		
Members (excluding buyback)	0	
City	<u>0</u>	
Total	0	
G. Net Actuarial (Gain)/Loss	N/A	

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
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N/A – Aggregate Actuarial Cost Method

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2018	0.00%	0.00%
Year Ended	9/30/2017	0.00%	0.00%
Year Ended	9/30/2016	0.00%	0.00%
Year Ended	9/30/2015	0.00%	0.00%
Year Ended	9/30/2014	0.00%	0.00%

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

		<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended	9/30/2018	10.06%	8.32%	7.75%
Year Ended	9/30/2017	11.76%	8.27%	7.75%
Year Ended	9/30/2016	10.02%	8.30%	7.75%
Year Ended	9/30/2015	1.02%	11.44%	8.00%
Year Ended	9/30/2014	11.43%	11.40%	8.00%

STATEMENT BY ENROLLED ACTUARY

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



Patrick T. Donlan, EA, ASA, MAAA  
Enrolled Actuary #17-6595

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112, Florida Statutes:

Mr. Keith Brinkman  
Bureau of Local  
Retirement Systems  
Post Office Box 9000  
Tallahassee, FL 32315-9000

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	4,951.40
Deposits	8.25
Prepaid Expenses	75.79
Cash	563.21
 Total Cash and Equivalents	 5,598.65
Receivables:	
Accounts Receivable	0.26
 Total Receivable	 0.26
Investments:	
Mutual Funds:	
Fixed Income	69,010.08
Equity	125,716.54
 Total Investments	 194,726.62
 Total Assets	 200,325.53
 <u>LIABILITIES</u>	
Payables:	
Accounts Payable	49.33
To Firefighters' Trust Fund	231.29
To Police Officers' Trust Fund	946.39
 Total Liabilities	 1,227.01
 NET POSITION RESTRICTED FOR PENSIONS	 199,098.52

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

Total Contributions		0.00
Investment Income:		
Net Increase in Fair Value of Investments	14,794.24	
Interest & Dividends	3,960.58	
Less Investment Expense <sup>1</sup>	(151.09)	
Net Investment Income		18,603.73
Total Additions		18,603.73

DEDUCTIONS

Distributions to Members:		
Benefit Payments	4,115.16	
Total Distributions		4,115.16
Administrative Expense		4,692.49
Total Deductions		8,807.65
Net Increase in Net Position		9,796.08
 <b>NET POSITION RESTRICTED FOR PENSIONS</b>		
Beginning of the Year		189,302.44
End of the Year		199,098.52

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

ACTUARIAL ASSET VALUATION  
September 30, 2018

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a four year period. In the first year, 25% of the gain or loss is recognized. In the second year 50%, in the third year 75%, and in the fourth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>			
		Amounts Not Yet Recognized by Valuation Year			
		2018	2019	2020	2021
9/30/2015	(12,118)	0	0	0	0
9/30/2016	3,750	936	0	0	0
9/30/2017	6,950	3,474	1,736	0	0
9/30/2018	4,274	3,205	2,136	1,067	0
<b>Total</b>		<b>7,615</b>	<b>3,872</b>	<b>1,067</b>	<b>0</b>

Development of Investment Gain/(Loss)

Market Value of Assets, 09/30/2017	189,302
Contributions Less Benefit Payments & Admin Expenses	(8,808)
Expected Investment Earnings <sup>1</sup>	14,330
Actual Net Investment Earnings	18,604
2018 Actuarial Investment Gain/(Loss)	4,274

<sup>1</sup> Expected Investment Earnings = 0.0775 \* [189,302 + 0.5 \* (8,808)]

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2018	199,099
(2) Gains/(Losses) Not Yet Recognized	7,615
(3) Actuarial Value of Assets, 09/30/2018, (1) - (2)	191,484

(A) 09/30/2017 Actuarial Assets: 185,244

(I) Net Investment Income:	
1. Interest and Dividends	3,961
2. Change in Actuarial Value	11,237
3. Investment Expenses	(151)
Total	15,047

(B) 09/30/2018 Actuarial Assets: 191,484

Actuarial Assets Rate of Return = 2I/(A+B-I): 8.32%  
Market Value of Assets Rate of Return: 10.06%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) 1,032

10/01/2018 Limited Actuarial Assets: 191,484

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2018  
 Actuarial Asset Basis

REVENUES

Total Contributions		0.00
Earnings from Investments:		
Interest & Dividends	3,960.58	
Change in Actuarial Value	11,237.24	
Total Earnings and Investment Gains		15,197.82

EXPENDITURES

Distributions to Members:		
Benefit Payments	4,115.16	
Total Distributions		4,115.16
Expenses:		
Investment related <sup>1</sup>	151.09	
Administrative	4,692.49	
Total Expenses		4,843.58
Change in Net Assets for the Year		6,239.08
Net Assets Beginning of the Year		185,244.44
Net Assets End of the Year <sup>2</sup>		191,483.52

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

<sup>2</sup>Net Assets may be limited for actuarial consideration.



STATISTICAL DATA

	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>
<u>Service Retirees</u>				
Number	1	1	1	1
Average Current Age	90.4	91.4	92.4	93.4
Average Annual Benefit	\$1,583	\$1,583	\$1,583	\$1,583
<u>Beneficiaries</u>				
Number	1	1	1	1
Average Current Age	81.3	82.3	83.3	84.3
Average Annual Benefit	\$2,532	\$2,532	\$2,532	\$2,532

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2017	0
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
ii. Non-vested or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	<u>0</u>
f. Continuing participants	0
g. New entrants	<u>0</u>
h. Total active life participants in valuation	0

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

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	1	1	0	0	2
Retired	0	0	0	0	0
Vested Deferred	0	0	0	0	0
Death, With Survivor	0	0	0	0	0
Death, No Survivor	0	0	0	0	0
Disabled	0	0	0	0	0
Refund of Contributions	0	0	0	0	0
Rehires	0	0	0	0	0
Expired Annuities	0	0	0	0	0
Data Corrections	0	0	0	0	0
b. Number current valuation	1	1	0	0	2

## ACTUARIAL ASSUMPTIONS AND METHODS

This actuarial valuation report has been prepared in accordance with generally accepted actuarial principles and practices. The major assumptions and methods used in this valuation are as follows:

### Economic Assumptions

Interest: 7.75% per year, net of investment related expenses.

Administrative Expenses: None.

### Demographic Assumptions

Mortality: **Female:** RP2000 Generational, 100% Annuitant White Collar, Scale BB  
**Male:** RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

**This is the assumption used by the Florida Retirement System in their July 1, 2018 actuarial valuation report.**

### Actuarial Methods

Funding Method: Aggregate Actuarial Cost Method.

Actuarial Value of Assets: The market value of assets is adjusted to recognize, over a four-year period, investment earnings greater than (or less than) the assumed investment return. The Actuarial Value of Assets shall not be more than 120% or less than 80% of the market value of assets. Details are shown in the Asset Information Section of the report.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	4,952
Deposits	8
Prepaid Expenses	76
Cash	563
Total Cash and Equivalents	5,599
Total Receivable	0
Investments:	
Mutual Funds:	
Fixed Income	69,010
Equity	125,717
Total Investments	194,727
Total Assets	200,326
<u>LIABILITIES</u>	
Payables:	
Accounts Payable	49
To Firefighters' Trust Fund	231
To Police Officers' Trust Fund	947
Total Liabilities	1,227
NET POSITION RESTRICTED FOR PENSIONS	199,099

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

Total Contributions		0
Investment Income:		
Net Increase in Fair Value of Investments	14,794	
Interest & Dividends	3,961	
Less Investment Expense <sup>1</sup>	(151)	
Net Investment Income		18,604
Total Additions		18,604

DEDUCTIONS

Distributions to Members:		
Benefit Payments	4,115	
Total Distributions		4,115
Administrative Expense		4,692
Total Deductions		8,807
Net Increase in Net Position		9,797
<b>NET POSITION RESTRICTED FOR PENSIONS</b>		
Beginning of the Year		189,302
End of the Year		199,099

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

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2018)

Plan Description

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	2
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	-
Active Plan Members	-
	2
	2

*Contributions*

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Chapter 112, Florida Statutes.

Investments

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2018:

Asset Class	Target Allocation
Domestic Equity	35.0%
International Equity	15.0%
Bonds	25.0%
Convertibles	10.0%
Private Real Estate	10.0%
Infrastructure	5.0%
Total	100.0%

*Concentrations:*

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

*Rate of Return:*

For the year ended September 30, 2018, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 10.06 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2018 were as follows:

Total Pension Liability	\$ 19,517
Plan Fiduciary Net Position	\$ (199,099)
Sponsor's Net Pension Liability	<u>\$ (179,582)</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	1020.13%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	N/A
Discount Rate	7.75%
Investment Rate of Return	7.75%

*Mortality:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

The date of the most recent experience study for which significant assumptions are based upon is not available.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2018 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	8.1%
International Equity	3.4%
Bonds	3.6%
Convertibles	6.7%
Private Real Estate	4.9%
Infrastructure	9.1%

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was 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 was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease 6.75%	Current Discount Rate 7.75%	1% Increase 8.75%
Sponsor's Net Pension Liability	\$ (178,757)	\$ (179,582)	\$ (180,342)

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2018	09/30/2017	09/30/2016
Total Pension Liability			
Service Cost	-	-	-
Interest	1,431	1,510	2,381
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	1,680	1,590	(10,628)
Changes of assumptions	-	-	2,080
Benefit Payments, including Refunds of Employee Contributions	(4,115)	(4,115)	(4,115)
Net Change in Total Pension Liability	(1,004)	(1,015)	(10,282)
Total Pension Liability - Beginning	20,521	21,536	31,818
Total Pension Liability - Ending (a)	<u>\$ 19,517</u>	<u>\$ 20,521</u>	<u>\$ 21,536</u>
Plan Fiduciary Net Position			
Net Investment Income	18,604	20,370	16,561
Benefit Payments, including Refunds of Employee Contributions	(4,115)	(4,115)	(4,115)
Administrative Expense	(4,692)	(4,370)	(4,796)
Net Change in Plan Fiduciary Net Position	9,797	11,885	7,650
Plan Fiduciary Net Position - Beginning	189,302	177,417	169,767
Plan Fiduciary Net Position - Ending (b)	<u>\$ 199,099</u>	<u>\$ 189,302</u>	<u>\$ 177,417</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (179,582)</u>	<u>\$ (168,781)</u>	<u>\$ (155,881)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	1020.13%	922.48%	823.82%
Covered Employee Payroll	N/A	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A	N/A

**Notes to Schedule:***Changes of assumptions:*

For the measurement date 09/30/2016, amounts reported as changes of assumptions resulted from the following changes:

- The investment return assumption was lowered from 8.00% to 7.75%.
- As mandated by Chapter 2015-137, Laws of Florida, the assumed rates of mortality were changed to the mortality table used by the Florida Retirement System.



**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	<u>09/30/2015</u>	<u>09/30/2014</u>	<u>09/30/2013</u>
Total Pension Liability			
Service Cost	-	-	-
Interest	2,247	2,564	3,019
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	4,093	-	-
Changes of assumptions	-	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(5,213)</u>	<u>(7,835)</u>	<u>(9,586)</u>
Net Change in Total Pension Liability	1,127	(5,271)	(6,567)
Total Pension Liability - Beginning	<u>30,691</u>	<u>35,962</u>	<u>42,529</u>
Total Pension Liability - Ending (a)	<u>\$ 31,818</u>	<u>\$ 30,691</u>	<u>\$ 35,962</u>
Plan Fiduciary Net Position			
Net Investment Income	1,776	18,826	20,163
Benefit Payments, including Refunds of Employee Contributions	(5,213)	(7,835)	(9,586)
Administrative Expense	<u>(6,130)</u>	<u>(455)</u>	<u>(1,950)</u>
Net Change in Plan Fiduciary Net Position	(9,567)	10,536	8,627
Plan Fiduciary Net Position - Beginning	<u>179,334</u>	<u>168,798</u>	<u>160,171</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 169,767</u>	<u>\$ 179,334</u>	<u>\$ 168,798</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (137,949)</u>	<u>\$ (148,643)</u>	<u>\$ (132,836)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	533.56%	584.32%	469.38%
Covered Employee Payroll	N/A	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A	N/A

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a percentage of Covered Employee Payroll
09/30/2018	\$ -	\$ -	\$ -	N/A	N/A
09/30/2017	\$ -	\$ -	\$ -	N/A	N/A
09/30/2016	\$ -	\$ -	\$ -	N/A	N/A
09/30/2015	\$ -	\$ -	\$ -	N/A	N/A
09/30/2014	\$ -	\$ -	\$ -	N/A	N/A
09/30/2013	\$ -	\$ -	\$ -	N/A	N/A

Notes to Schedule

Methods and assumptions used to determine contribution rates:

Funding Method: Aggregate Actuarial Cost Method.  
 Interest Rate: 7.75% per year, compounded annually, net of investment-related expenses.  
 Mortality: Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB  
 Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB  
 This is the assumption used by the Florida Retirement System in their July 1, 2015 actuarial valuation report.

Asset Valuation Method: The market value of assets is adjusted to recognize, over a four-year period, investment earnings greater than (or less than) the assumed investment return. The Actuarial Value of Assets shall not be more than 120% or less than 80% of the market value of assets.

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2018	10.06%
09/30/2017	11.76%
09/30/2016	10.02%
09/30/2015	1.02%
09/30/2014	11.43%
09/30/2013	13.06%

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2018)

General Information about the Pension Plan

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	2	
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	-	
Active Plan Members	-	
	2	
	2	

*Contributions*

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Chapter 112, Florida Statutes.

Net Pension Liability

The measurement date is September 30, 2018.

The measurement period for the pension expense was October 1, 2017 to September 30, 2018.

The reporting period is October 1, 2017 through September 30, 2018.

The Sponsor's Net Pension Liability was measured as of September 30, 2018.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.70%	
Salary Increases	N/A	
Discount Rate	7.75%	
Investment Rate of Return	7.75%	

*Mortality:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

The date of the most recent experience study for which significant assumptions are based upon is not available.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2018 the inflation rate assumption of the investment advisor was 2.50%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	35.0%	8.1%
International Equity	15.0%	3.4%
Bonds	25.0%	3.6%
Convertibles	10.0%	6.7%
Private Real Estate	10.0%	4.9%
Infrastructure	5.0%	9.1%
<u>Total</u>	<u>100.0%</u>	

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was 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 was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Balances at September 30, 2017	\$ 20,521	\$ 189,302	\$ (168,781)
Changes for a Year:			
Service Cost	-	-	-
Interest	1,431	-	1,431
Differences between Expected and Actual Experience	1,680	-	1,680
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Net Investment Income	-	18,604	(18,604)
Benefit Payments, including Refunds of Employee Contributions	(4,115)	(4,115)	-
Administrative Expense	-	(4,692)	4,692
Net Changes	(1,004)	9,797	(10,801)
Balances at September 30, 2018	\$ 19,517	\$ 199,099	\$ (179,582)

*Sensitivity of the Net Pension Liability to changes in the Discount Rate.*

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.75%	7.75%	8.75%
Sponsor's Net Pension Liability	\$ (178,757)	\$ (179,582)	\$ (180,342)

*Pension Plan Fiduciary Net Position.*

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS**

For the year ended September 30, 2018, the Sponsor will recognize a Pension Expense of -\$7,015.

On September 30, 2018, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	-	-
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	6,501
Total	\$ -	\$ 6,501

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:		
2019	\$	(489)
2020	\$	(2,912)
2021	\$	(2,245)
2022	\$	(855)
2023	\$	-
Thereafter	\$	-

**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2018	09/30/2017	09/30/2016
Total Pension Liability			
Service Cost	-	-	-
Interest	1,431	1,510	2,381
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	1,680	1,590	(10,628)
Changes of assumptions	-	-	2,080
Benefit Payments, including Refunds of Employee Contributions	(4,115)	(4,115)	(4,115)
Net Change in Total Pension Liability	(1,004)	(1,015)	(10,282)
Total Pension Liability - Beginning	20,521	21,536	31,818
Total Pension Liability - Ending (a)	<u>\$ 19,517</u>	<u>\$ 20,521</u>	<u>\$ 21,536</u>
Plan Fiduciary Net Position			
Net Investment Income	18,604	20,370	16,561
Benefit Payments, including Refunds of Employee Contributions	(4,115)	(4,115)	(4,115)
Administrative Expense	(4,692)	(4,370)	(4,796)
Net Change in Plan Fiduciary Net Position	9,797	11,885	7,650
Plan Fiduciary Net Position - Beginning	189,302	177,417	169,767
Plan Fiduciary Net Position - Ending (b)	<u>\$ 199,099</u>	<u>\$ 189,302</u>	<u>\$ 177,417</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (179,582)</u>	<u>\$ (168,781)</u>	<u>\$ (155,881)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	1020.13%	922.48%	823.82%
Covered Employee Payroll	N/A	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A	N/A

**Notes to Schedule:**

*Changes of assumptions:*

For the measurement date 09/30/2016, amounts reported as changes of assumptions resulted from the following changes:

- The investment return assumption was lowered from 8.00% to 7.75%.
- As mandated by Chapter 2015-137, Laws of Florida, the assumed rates of mortality were changed to the mortality table used by the Florida Retirement System.



**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	<u>09/30/2015</u>	<u>09/30/2014</u>	<u>09/30/2013</u>
Total Pension Liability			
Service Cost	-	-	-
Interest	2,247	2,564	3,019
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	4,093	-	-
Changes of assumptions	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(5,213)	(7,835)	(9,586)
Net Change in Total Pension Liability	1,127	(5,271)	(6,567)
Total Pension Liability - Beginning	30,691	35,962	42,529
Total Pension Liability - Ending (a)	<u>\$ 31,818</u>	<u>\$ 30,691</u>	<u>\$ 35,962</u>
Plan Fiduciary Net Position			
Net Investment Income	1,776	18,826	20,163
Benefit Payments, including Refunds of Employee Contributions	(5,213)	(7,835)	(9,586)
Administrative Expense	(6,130)	(455)	(1,950)
Net Change in Plan Fiduciary Net Position	(9,567)	10,536	8,627
Plan Fiduciary Net Position - Beginning	179,334	168,798	160,171
Plan Fiduciary Net Position - Ending (b)	<u>\$ 169,767</u>	<u>\$ 179,334</u>	<u>\$ 168,798</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (137,949)</u>	<u>\$ (148,643)</u>	<u>\$ (132,836)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	533.56%	584.32%	469.38%
Covered Employee Payroll	N/A	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A	N/A

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a percentage of Covered Employee Payroll
09/30/2018	\$ -	\$ -	\$ -	N/A	N/A
09/30/2017	\$ -	\$ -	\$ -	N/A	N/A
09/30/2016	\$ -	\$ -	\$ -	N/A	N/A
09/30/2015	\$ -	\$ -	\$ -	N/A	N/A
09/30/2014	\$ -	\$ -	\$ -	N/A	N/A
09/30/2013	\$ -	\$ -	\$ -	N/A	N/A

Notes to Schedule

Methods and assumptions used to determine contribution rates:

Funding Method: Aggregate Actuarial Cost Method.  
 Interest Rate: 7.75% per year, compounded annually, net of investment-related expenses.  
 Mortality: Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB  
 Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB  
 This is the assumption used by the Florida Retirement System in their July 1, 2015 actuarial valuation report.

Asset Valuation Method: The market value of assets is adjusted to recognize, over a four-year period, investment earnings greater than (or less than) the assumed investment return. The Actuarial Value of Assets shall not be more than 120% or less than 80% of the market value of assets.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

**The following information is not required to be disclosed but is provided for informational purposes.**

**COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2018**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ (168,781)	\$ 7,561	\$ 4,846	\$ -
Total Pension Liability Factors:				
Service Cost	-	-	-	-
Interest	1,431	-	-	1,431
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	1,680	-	1,680	-
Current year amortization of experience difference	-	-	(1,680)	1,680
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(4,115)	-	-	-
Net change	<u>(1,004)</u>	<u>-</u>	<u>-</u>	<u>3,111</u>
Plan Fiduciary Net Position:				
Projected Net Investment Income	14,330	-	-	(14,330)
Difference between projected and actual earnings on Pension Plan investments	4,274	4,274	-	-
Current year amortization	-	(2,911)	(2,423)	(488)
Benefit Payments, including Refunds of Employee Contributions	(4,115)	-	-	-
Administrative Expenses	(4,692)	-	-	4,692
Net change	<u>9,797</u>	<u>1,363</u>	<u>(2,423)</u>	<u>(10,126)</u>
Ending Balance	<u><u>\$ (179,582)</u></u>	<u><u>\$ 8,924</u></u>	<u><u>\$ 2,423</u></u>	<u><u>\$ (7,015)</u></u>

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2015	\$ 12,117	5	\$ 2,423	\$ 2,423	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (3,336)	5	\$ (667)	\$ (667)	\$ (667)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (6,949)	5	\$ (1,390)	\$ (1,390)	\$ (1,390)	\$ (1,390)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (4,274)	5	\$ (854)	\$ (855)	\$ (855)	\$ (855)	\$ (855)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (488)	\$ (489)	\$ (2,912)	\$ (2,245)	\$ (855)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2018	\$ 1,680	1	\$ 1,680	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,680	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -