

February 13, 2019

Board of Trustees c/o Brian Robinson, Plan Administrator PO Box 370 Avon Park, FL 33826

RE: GASB Statement No.67 and No.68 - City of Avon Park Police Officers' Retirement System

Dear Board:

We are pleased to present to the Board a GASB Statement No.67 and No.68 measured as of September 30, 2018 for the City of Avon Park Police Officers' Retirement System.

The calculation of the liability associated with the benefits referenced in this report was performed for the purpose of satisfying the requirements of GASB No.67 and No.68 and is not applicable for other purposes, such as determining the plan's funding requirements. A calculation of the plan's liability for other purposes may produce significantly different results.

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<sup>th</sup>, 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.

Certain schedules should include a 10-year history of information. As provided for in GASB No.67 and No.68, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB No.67 and No.68.

To the best of our knowledge, these statements are complete and accurate and are in accordance with generally recognized actuarial practices and methods.

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

Respectfully submitted,

Foster & Foster, Inc.

By:

Douglas H. Lozen, EA, MAAA Enrolled Actuary #17-7778

DHL/lke Enclosures

# STATEMENT OF FIDUCIARY NET POSITION SEPTEMBER 30, 2018

ASSETS	MARKET VALUE
Cash and Cash Equivalents: Short Term Investments	90,000
Prepaid Benefits	28,402
Cash	23,351
	- ,
Total Cash and Equivalents	141,753
Receivables:	
Member Contributions in Transit	154
State Contributions	63,092
From Broker for Investments Sold	18,685
Tax Reclaims	786
Investment Income	8,166
Total Receivable	90,883
Investments:	
Stocks	2,601,215
Mutual Funds:	
Fixed Income	2,129,269
Equity	1,216,686
Real Estate	510,601
Total Investments	6,457,771
Total Assets	6,690,407
LIABILITIES	
Payables:	
Investment Expenses	4,387
Prior Refunds	704
To Broker for Investments Purchased	17,694
Total Liabilities	22,785
NET POSITION RESTRICTED FOR PENSIONS	6,667,622

# STATEMENT OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEAR ENDED SEPTEMBER 30, 2018

#### Market Value Basis

ADDITIONS Contributions:		
Member	4,159	
State	63,092	
2 <b></b>	35,072	
Total Contributions		67,251
Investment Income:		
Net Increase in Fair Value of Investments	308,382	
Interest & Dividends	203,447	
Less Investment Expense <sup>1</sup>	(33,915)	
•	· , ,	
Net Investment Income		477,914
Total Additions		545,165
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	336,455	
Lump Sum Share Distributions	12,102	
Refunds of Member Contributions	3,586	
Total Distributions		352,143
Administrative Expense		50,639
Total Deductions		402,782
Net Increase in Net Position		142,383
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		6,525,239
End of the Year		6,667,622

<sup>&</sup>lt;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 Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two City residents appointed by the City Council, two police officers elected by majority of covered Members, and a fifth Member elected by the other four and appointed by City Council.

Plan Membership as of October 1, 2017:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	15
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	14
Active Plan Members	1_
	30

#### Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

#### Normal Retirement:

Eligibility Hired On/Before 4/27/2014: Earlier of: a) Age 55 and 10 years of Credited Service, b) 20 years of Credited Service, or c) Age 60.

Eligibility Hired After 4/27/2014: Earlier of: a) Age 55 and 10 years of Credited Service, b) 25 years of Credited Service, or c) Age 60.

Benefit Amount Hired On/Before 4/27/2014: 3.0% of Average Final Compensation times Credited Service.

Benefit Amount Hired After 4/27/2014: 2.0% of Average Final Compensation times Credited Service.

#### Early Retirement:

Eligibility: Age 50 and 10 years of Credited Service.

Benefit Amount: Accrued benefit, reduced 3% for each year.

#### Disability:

Eligibility: a. Non-Service Incurred: 10 years of Credited Service.

- b. Service Incurred: Covered from Date of Employment
- c. Total and permanent disability as determined by the Board of Trustees.

Benefit Amount: Accrued benefit, but not less than 42% of AFC for service incurred disabilities.

#### **Pre-Retirement Death Benefits:**

Eligibility: a. Non-Service incurred: 5 years of Credited Service.

b. Service incurred: covered from date of employment.

Benefit Amount, Surviving Spouse: 50% of rate of pay in effect on the date of death payable for life, plus 10% of rate of pay to each minor child. Maximum benefit is 80% of base pay.

Benefit Amount: No Spouse, No Dependents: Actuarial equivalent of Member's accrued benefit, payable to beneficiary for life, provided Member had completed 10 years Credited Service.

Minimum Benefit: Accrued benefit with a 2% accrual rate, payable to beneficiary for 10 years, less any spouse or children benefits payable.

### Vesting (Termination):

Less than 10 years of Credited Service: Refund of Member Contributions with interest at 3%.

10 years or more: Accrued benefit payable at age 50 or later, on a reduced basis if to commence prior to Normal Retirement Date, or a refund of Contributions.

#### Cost-Of-Living Adjustments:

All Retirees, Beneficiaries, and Joint Annuitants (including Disability Retirees and Vested Terminated Members, but excluding Beneficiaries of Pre-Retirement Death Members) shall receive annual 1.46% cost-of-living-adjustments for life, beginning the first October 1 following the otherwise Normal Retirement Date (or actual retirement date for Disability Retirees). Optional equivalent forms of this COLA are available.

#### Chapter 185 Share Plan:

Share accounts are established as of September 30, 2015. In accordance with the May 9, 2017 mutual consent agreement, State contributions in excess of the City's required annual contribution, if any, will be allocated to Member Share Accounts.

#### **Contributions**

Employee: 5.0% of Salary

Premium Tax: 0.85% tax on premiums for casualty insurance.

City: Remaining amount necessary for payment of Normal (current year's) Cost, but in no event less than 5% of the total Salary of the Members.

#### Investments

Investment Policy:

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

Asset Class	Target Allocation
Domestic Equity	45.0%
International Equity	15.0%
Fixed Income (Core)	27.5%
Global Fixed Income	5.0%
Real Estate	7.5%
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 7.56 percent.

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

#### **Deferred Retirement Option Program**

Eligibility: Satisfaction of Normal Retirement requirements.

Participation: Not to exceed 60 months.

Rate of Return: At Member's election (may change once), 6.5% or net investment return.

The DROP balance as September 30, 2018 is \$0.

#### 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 \$ 6,538,606
Plan Fiduciary Net Position \$ (6,667,622)
Sponsor's Net Pension Liability \$ (129,016)
Plan Fiduciary Net Position as a percentage of Total Pension Liability 101.97%

#### 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	2.50%
Salary Increases	6.00%
Discount Rate	7.50%
Investment Rate of Return	7.50%

#### Mortality Rate Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

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

Mortality Rate Healthy Inactive Lives:

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

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

Mortality Rate Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale. Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

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:

	Long Term
	Expected Real
Asset Class	Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Fixed Income (Core)	2.50%
Global Fixed Income	3.50%
Real Estate	4.50%

#### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.50 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.

				Current		
	1%	Decrease	Dis	scount Rate	19	% Increase
	6.50%			7.50%		8.50%
Sponsor's Net Pension Liability	\$	687,711	\$	(129,016)	\$	(796,573)

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

	C	09/30/2018	C	09/30/2017	(	09/30/2016
Total Pension Liability						
Service Cost		21,881		43,637		43,485
Interest		478,398		473,710		457,532
Change in Excess State Money		-		-		(44,955)
Share Plan Allocation		28,839		23,267		44,955
Changes of benefit terms		-		-		-
Differences between Expected and Actual Experience		(121,947)		(107,123)		(156,072)
Changes of assumptions		349,415		-		138,973
Benefit Payments, including Refunds of Employee Contributions		(352,143)		(354,136)		(299,468)
Net Change in Total Pension Liability		404,443		79,355		184,450
Total Pension Liability - Beginning		6,134,163		6,054,808		5,870,358
Total Pension Liability - Ending (a)	\$	6,538,606	\$	6,134,163	\$	6,054,808
Disc Fid. dec. Mat Decides						
Plan Fiduciary Net Position						20.077
Contributions - Employer Contributions - State		-		- 50 201		30,977
		63,092		58,391		55,147
Contributions - Employee		4,159		7,358		9,075
Net Investment Income		477,914		718,596		369,683
Benefit Payments, including Refunds of Employee Contributions		(352,143)		(354,136)		(299,468)
Administrative Expense Net Change in Plan Fiduciary Net Position		(50,639) 142,383		(54,683) 375,526		(32,414)
·						
Plan Fiduciary Net Position - Beginning	Φ.	6,525,239	Ф	6,149,713	ф	6,016,713
Plan Fiduciary Net Position - Ending (b)	\$	6,667,622	\$	6,525,239	\$	6,149,713
Net Pension Liability - Ending (a) - (b)	\$	(129,016)	\$	(391,076)	\$	(94,905)
Plan Fiduciary Net Position as a percentage of the Total Pension Liability		101.97%		106.38%		101.57%
Covered Payroll Net Pension Liability as a percentage of Covered Payroll	\$	83,183 -155.10%	\$	147,151 -265.77%	\$	181,491 -52.29%

#### **Notes to Schedule:**

Changes of benefit terms:

For measurement date 09/30/2016, Ordinance 03-16 was adopted which made the following changes:

- For Members hired after April 27, 2014, a benefit accrual rate equal to 2.0% of Average Final Compensation for each year of Credited Service.
- For Members hired after April 27, 2014, a Normal Retirement Date which is the earlier of a) Age 55 with 10 years of Credited Service, b) Age 60, regardless of years of Credited Service, and c) the completion of 25 years of Credited Service, regardless of age.

#### Changes of assumptions:

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 8.00% to 7.75% per year compounded annually, net of investment related expenses.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

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

	(	09/30/2015	(	09/30/2014	0	9/30/2013
Total Pension Liability						
Service Cost		34,314		37,818		35,017
Interest		464,239		448,862		445,501
Change in Excess State Money		-		-		-
Share Plan Allocation		-		-		-
Changes of benefit terms		-		-		-
Differences between Expected and Actual Experience		(302,143)		-		-
Changes of assumptions		-		-		-
Benefit Payments, including Refunds of Employee Contributions		(279,363)		(302,555)		(580,059)
Net Change in Total Pension Liability		(82,953)		184,125		(99,541)
Total Pension Liability - Beginning		5,953,311		5,769,186		5,868,727
Total Pension Liability - Ending (a)	\$	5,870,358	\$	5,953,311	\$	5,769,186
Plan Fiduciary Net Position						
Contributions - Employer		84,937		127,576		296,360
Contributions - State		54,943		51,390		53,069
Contributions - Employee		7,634		7,872		9,464
Net Investment Income		(71,456)		563,391		726,290
Benefit Payments, including Refunds of Employee Contributions		(279,363)		(302,555)		(580,059)
Administrative Expense		(39,184)		(68,811)		(70,999)
Net Change in Plan Fiduciary Net Position		(242,489)		378,863		434,125
Plan Fiduciary Net Position - Beginning		6,259,202		5,880,339		5,446,214
Plan Fiduciary Net Position - Ending (b)	\$	6,016,713	\$	6,259,202	\$	5,880,339
Than Flatering 100 Footboll Ending (0)	Ψ	0,010,713	Ψ	0,237,202	Ψ	3,000,337
Net Pension Liability - Ending (a) - (b)	\$	(146,355)	\$	(305,891)	\$	(111,153)
Plan Fiduciary Net Position as a percentage of the Total Pension Liability		102.49%		105.14%		101.93%
Covered Payroll	\$	167,672	\$	157,440	\$	189,286
Net Pension Liability as a percentage of Covered Payroll	Ψ	-87.29%	Ψ	-194.29%	Ψ	-58.72%
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#### SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

			Cor	ntributions					
			in 1	elation to					Contributions
	A	ctuarially	the .	Actuarially	Co	ontribution			as a percentage
	De	termined	De	etermined	D	eficiency	(	Covered	of Covered
Fiscal Year Ended	Co	ntribution	Cor	ntributions	(Excess)		Payroll		Payroll
09/30/2018	\$	34,253	\$	34,253	\$	-	\$	83,183	41.18%
09/30/2017	\$	35,124	\$	35,124	\$	-	\$	147,151	23.87%
09/30/2016	\$	75,649	\$	86,124	\$	(10,475)	\$	181,491	47.45%
09/30/2015	\$	139,880	\$	139,880	\$	-	\$	167,672	83.42%
09/30/2014	\$	178,966	\$	178,966	\$	-	\$	157,440	113.67%
09/30/2013	\$	349,429	\$	349,429	\$	-	\$	189,286	184.60%

#### Notes to Schedule

Valuation Date: 10/01/2016

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality Rate: Healthy Lives:

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

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

Collar, Scale BB. *Disabled Lives:* 

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White

Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar

with no setback, no projection scale.

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those

outlined in Milliman's July 1, 2015 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements. 8.0% per year compounded annually, net of investment related expenses. This

assumption is supported by the Plan's target asset allocation and expected long-term

return by individual asset class.

Retirement Age: Hired On/Before 4/27/2014: Earlier of age 55 and 10 years of service, the

completion of 20 years of service, regardless of age or attainment of age 60. Also,

any Member who has reached Normal Retirement is assumed to continue

employment for one additional year.

Hired After 4/27/2014: Earlier of age 55 and 10 years of service, the completion of 25 years of service, regardless of age or attainment of age 60. Also, any Member who

has reached Normal Retirement is assumed to continue employment for one

additional year.

This assumption is reasonable based on Plan provisions.

Early Retirement: Commencing with eligibility for Early Retirement Age (age 50 with 10 years of

Service), Members are assumed to retire with an immediate subsidized benefit at the

rate of 5% per year.

This assumption is reasonable based on Plan provisions.

Interest Rate:

#### **GASB 67**

Disability Rate: See table below (1201). It is assumed that 75% of disablements and active Member

deaths are service-related.

The above rates are consistent with other Florida public safety Plans.

Termination Rate: See table below (1302). These rates are consistent with other Florida public safety

Plans.

Salary Increases: 6.0% per year until the assumed retirement age. This assumption is reasonable, based

on long-term Plan experience.

Additionally, projected salary at retirement is increased individually for each Member to account for non-regular compensation (but not exceeding amounts in place on November 4, 2012). These individual amounts are based on data provided

by the City.

Cost-of-Living (COLA): 1.46% automatic lifetime COLA, beginning one year after the Normal Retirement

Date for all Retirees and Beneficiaries except for Pre-Retirement Death Beneficiaries.

Payroll Growth: None.

Funding Method: Entry Age Normal Actuarial Cost Method, with a funding load based on the current

6.0% salary increase assumption.

Amortization Method: Level Dollar, Closed.

Remaining Amortization Period: 26 Years (as of 10/01/2016 Valuation).

Actuarial Asset Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the

historical geometric four-year average Market Value return (net of fees). It is possible that over time this technique will produce an insignificant bias above or

below Market Value of Assets.

Termination and Disability Rate Table:

	% Terminating	% Becoming
	During the	Disabled During
Age	Year	the Year
20	6.0%	0.03%
30	5.0%	0.04%
40	2.6%	0.07%
50	0.8%	0.18%

## SCHEDULE OF INVESTMENT RETURNS

Last 10 Fiscal Years

## Annual Money-Weighted Rate of Return

Fiscal Year Ended	Net of Investment Expense
09/30/2018	7.56%
09/30/2017	12.07%
09/30/2016	6.29%
09/30/2015	-1.16%
09/30/2014	9.69%
09/30/2013	13.70%

#### NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2019)

#### General Information about the Pension Plan

#### Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

Two City residents appointed by the City Council, two police officers elected by majority of covered Members, and a fifth Member elected by the other four and appointed by City Council.

Each person employed by the City Police Department as a full-time Police Officer becomes a member of the Plan as a condition of his employment. All Police Officers are therefore eligible for plan benefits as provided for in the plan document and by applicable law.

Plan Membership as of October 1, 2017:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	15
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	14
Active Plan Members	1
	30

#### Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

#### Normal Retirement:

Eligibility Hired On/Before 4/27/2014: Earlier of: a) Age 55 and 10 years of Credited Service, b) 20 years of Credited Service, or c) Age 60.

Eligibility Hired After 4/27/2014: Earlier of: a) Age 55 and 10 years of Credited Service, b) 25 years of Credited Service, or c) Age 60.

Benefit Amount Hired On/Before 4/27/2014: 3.0% of Average Final Compensation times Credited Service.

Benefit Amount Hired After 4/27/2014: 2.0% of Average Final Compensation times Credited Service.

#### Early Retirement:

Eligibility: Age 50 and 10 years of Credited Service.

Benefit Amount: Accrued benefit, reduced 3% for each year.

#### Disability:

Eligibility: a. Non-Service Incurred: 10 years of Credited Service.

- b. Service Incurred: Covered from Date of Employment
- c. Total and permanent disability as determined by the Board of Trustees.

Benefit Amount: Accrued benefit, but not less than 42% of AFC for service incurred disabilities.

#### Pre-Retirement Death Benefits:

Eligibility: a. Non-Service incurred: 5 years of Credited Service.

b. Service incurred: covered from date of employment.

Benefit Amount, Surviving Spouse: 50% of rate of pay in effect on the date of death payable for life, plus 10% of rate of pay to each minor child. Maximum benefit is 80% of base pay.

Benefit Amount: No Spouse, No Dependents: Actuarial equivalent of Member's accrued benefit, payable to beneficiary for life, provided Member had completed 10 years Credited Service.

Minimum Benefit: Accrued benefit with a 2% accrual rate, payable to beneficiary for 10 years, less any spouse or children benefits payable.

#### Vesting (Termination):

Less than 10 years of Credited Service: Refund of Member Contributions with interest at 3%.

10 years or more: Accrued benefit payable at age 50 or later, on a reduced basis if to commence prior to Normal Retirement Date, or a refund of Contributions.

#### Cost-Of-Living Adjustments:

All Retirees, Beneficiaries, and Joint Annuitants (including Disability Retirees and Vested Terminated Members, but excluding Beneficiaries of Pre-Retirement Death Members) shall receive annual 1.46% cost-of-living-adjustments for life, beginning the first October 1 following the otherwise Normal Retirement Date (or actual retirement date for Disability Retirees). Optional equivalent forms of this COLA are available.

#### Chapter 185 Share Plan:

Share accounts are established as of September 30, 2015. In accordance with the May 9, 2017 mutual consent agreement, State contributions in excess of the City's required annual contribution, if any, will be allocated to Member Share Accounts.

#### Contributions

Employee: 5.0% of Salary

Premium Tax: 0.85% tax on premiums for casualty insurance.

City: Remaining amount necessary for payment of Normal (current year's) Cost, but in no event less than 5% of the total Salary of

the Members.

#### 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, 2018 through September 30, 2019.

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:

2.50%
6.00%
7.50%
7.50%

Mortality Rate Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

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

Mortality Rate Healthy Inactive Lives:

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

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

Mortality Rate Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

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:

		Long Term Expected
Asset Class	Target Allocation	Real Rate of Return
Domestic Equity	45.0%	7.50%
International Equity	15.0%	8.50%
Fixed Income (Core)	27.5%	2.50%
Global Fixed Income	5.0%	3.50%
Real Estate	7.5%	4.50%
Total	100.0%	

#### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.50 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)							
	To	tal Pension	Plai	n Fiduciary	1	Net Pension		
		Liability	Ne	et Position		Liability		
		(a)		(b)		(a)-(b)		
Reporting Period Ending September 30, 2018	\$	6,134,163	\$	6,525,239	\$	(391,076)		
Changes for a Year:								
Service Cost		21,881		-		21,881		
Interest		478,398		-		478,398		
Share Plan Allocation		28,839		-		28,839		
Differences between Expected and Actual Experience		(121,947)		-		(121,947)		
Changes of assumptions		349,415		-		349,415		
Changes of benefit terms		-		-		-		
Contributions - Employer		-		-		-		
Contributions - State		-		63,092		(63,092)		
Contributions - Employee		-		4,159		(4,159)		
Net Investment Income		-		477,914		(477,914)		
Benefit Payments, including Refunds of Employee Contributions		(352,143)		(352,143)		-		
Administrative Expense		-		(50,639)		50,639		
Net Changes		404,443		142,383		262,060		
Reporting Period Ending September 30, 2019	\$	6,538,606	\$	6,667,622	\$	(129,016)		

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

			Cur	rrent Discount		
	1	% Decrease		Rate		% Increase
		6.50%		7.50%	8.50%	
Sponsor's Net Pension Liability	\$	687,711	\$	(129,016)	\$	(796,573)

Pension Plan Fiduciary Net Position.

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

# FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS FISCAL YEAR SEPTEMBER 30, 2018

For the year ended September 30, 2018, the Sponsor has recognized a Pension Expense of \$67,931. On September 30, 2018, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Ου	Deferred atflows of esources	Inf	eferred clows of sources
Differences between Expected and Actual Experience		-		-
Changes of assumptions		-		-
Net difference between Projected and Actual Earnings on Pension Plan investments		75,110		-
Employer and State contributions subsequent to the measurement date		63,092		-
Total	\$	138,202	\$	-

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date has been recognized as a reduction of the net Pension Liability in the year ended September 30, 2018.

Other 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	\$ 65,370
2020	\$ 85,439
2021	\$ (27,631)
2022	\$ (48,068)
2023	\$ -
Thereafter	\$ -

# PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS FISCAL YEAR SEPTEMBER 30, 2019

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$365,974. On September 30, 2019, 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	34,288	-
Employer and State contributions subsequent to the measurement date	TBD	_
Total	TBD	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date will be recognized as a reduction of the net Pension Liability in the year ended September 30, 2019. Other 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:	
2020	\$ 91,576
2021	\$ (21,494)
2022	\$ (41,931)
2023	\$ 6,137
2024	\$ -
Thereafter	\$ _

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

Reporting Period Ending	(	09/30/2019	(	09/30/2018	C	09/30/2017
Measurement Date	(	09/30/2018	(	09/30/2017	(	09/30/2016
Total Pension Liability						
Service Cost		21,881		43,637		43,485
Interest		478,398		473,710		457,532
Change in Excess State Money		-		-		(44,955)
Share Plan Allocation		28,839		23,267		44,955
Changes of benefit terms		-		-		-
Differences between Expected and Actual Experience		(121,947)		(107,123)		(156,072)
Changes of assumptions		349,415		-		138,973
Benefit Payments, including Refunds of Employee Contributions		(352,143)		(354,136)		(299,468)
Net Change in Total Pension Liability		404,443		79,355		184,450
Total Pension Liability - Beginning		6,134,163		6,054,808		5,870,358
Total Pension Liability - Ending (a)	\$	6,538,606	\$	6,134,163	\$	6,054,808
• • •	_					
Plan Fiduciary Net Position						
Contributions - Employer		-		-		30,977
Contributions - State		63,092		58,391		55,147
Contributions - Employee		4,159		7,358		9,075
Net Investment Income		477,914		718,596		369,683
Benefit Payments, including Refunds of Employee Contributions		(352,143)		(354,136)		(299,468)
Administrative Expense		(50,639)		(54,683)		(32,414)
Net Change in Plan Fiduciary Net Position		142,383		375,526		133,000
Plan Fiduciary Net Position - Beginning		6,525,239		6,149,713		6,016,713
Plan Fiduciary Net Position - Ending (b)	\$	6,667,622	\$	6,525,239	\$	6,149,713
Net Pension Liability - Ending (a) - (b)	\$	(129,016)	\$	(391,076)	\$	(94,905)
	_		_		_	
Plan Fiduciary Net Position as a percentage of the Total Pension Liability		101.97%		106.38%		101.57%
Covered Payroll	\$	83,183	\$	147,151	\$	181,491
Net Pension Liability as a percentage of Covered Payroll		-155.10%		-265.77%		-52.29%

#### **Notes to Schedule:**

Changes of benefit terms:

For measurement date 09/30/2016, Ordinance 03-16 was adopted which made the following changes:

- For Members hired after April 27, 2014, a benefit accrual rate equal to 2.0% of Average Final Compensation for each year of Credited Service.
- For Members hired after April 27, 2014, a Normal Retirement Date which is the earlier of a) Age 55 with 10 years of Credited Service, b) Age 60, regardless of years of Credited Service, and c) the completion of 25 years of Credited Service, regardless of age.

#### Changes of assumptions:

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from lowering the investment rate of return from 8.00% to 7.75% per year compounded annually, net of investment related expenses.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

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

Reporting Period Ending	(	09/30/2016	(	09/30/2015	(	09/30/2014
Measurement Date	(	09/30/2015	(	09/30/2014	(	09/30/2013
Total Pension Liability						
Service Cost		34,314		37,818		35,017
Interest		464,239		448,862		445,501
Change in Excess State Money		-		-		-
Share Plan Allocation		-		-		-
Changes of benefit terms		-		-		-
Differences between Expected and Actual Experience		(302,143)		-		-
Changes of assumptions		-		-		-
Benefit Payments, including Refunds of Employee Contributions		(279,363)		(302,555)		(580,059)
Net Change in Total Pension Liability		(82,953)		184,125		(99,541)
Total Pension Liability - Beginning		5,953,311		5,769,186		5,868,727
Total Pension Liability - Ending (a)	\$	5,870,358	\$	5,953,311	\$	5,769,186
, ,			_		_	
Plan Fiduciary Net Position						
Contributions - Employer		84,937		127,576		296,360
Contributions - State		54,943		51,390		53,069
Contributions - Employee		7,634		7,872		9,464
Net Investment Income		(71,456)		563,391		726,290
Benefit Payments, including Refunds of Employee Contributions		(279,363)		(302,555)		(580,059)
Administrative Expense		(39,184)		(68,811)		(70,999)
Net Change in Plan Fiduciary Net Position		(242,489)		378,863		434,125
Plan Fiduciary Net Position - Beginning		6,259,202		5,880,339		5,446,214
Plan Fiduciary Net Position - Ending (b)	\$	6,016,713	\$	6,259,202	\$	5,880,339
•	_		_		_	
Net Pension Liability - Ending (a) - (b)	\$	(146,355)	\$	(305,891)	\$	(111,153)
	_		_		<u> </u>	
Plan Fiduciary Net Position as a percentage of the Total Pension Liability		102.49%		105.14%		101.93%
Covered Payroll	\$	167,672	\$	157,440	\$	189,286
Net Pension Liability as a percentage of Covered Payroll		-87.29%		-194.29%		-58.72%

#### SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

			Co	ntributions					
			in	relation to					Contributions
	A	ctuarially	the	Actuarially	Co	ontribution			as a percentage
	De	etermined	De	etermined	D	eficiency	(	Covered	of Covered
Fiscal Year Ended	Contributi		Co	ntributions	(	(Excess)		Payroll	Payroll
09/30/2018	\$	34,253	\$	34,253	\$	-	\$	83,183	41.18%
09/30/2017	\$	35,124	\$	35,124	\$	-	\$	147,151	23.87%
09/30/2016	\$	75,649	\$	86,124	\$	(10,475)	\$	181,491	47.45%
09/30/2015	\$	139,880	\$	139,880	\$	-	\$	167,672	83.42%
09/30/2014	\$	178,966	\$	178,966	\$	-	\$	157,440	113.67%
09/30/2013	\$	349,429	\$	349,429	\$	-	\$	189,286	184.60%

#### Notes to Schedule

Valuation Date: 10/01/2016

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Mortality Rate: Healthy Lives:

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

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

Collar, Scale BB. *Disabled Lives:* 

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White

Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar

with no setback, no projection scale.

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent

valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2015 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements. 8.0% per year compounded annually, net of investment related expenses. This

assumption is supported by the Plan's target asset allocation and expected long-term

return by individual asset class.

Retirement Age: Hired On/Before 4/27/2014: Earlier of age 55 and 10 years of service, the

completion of 20 years of service, regardless of age or attainment of age 60. Also, any Member who has reached Normal Retirement is assumed to continue employment

for one additional year.

Hired After 4/27/2014: Earlier of age 55 and 10 years of service, the completion of 25 years of service, regardless of age or attainment of age 60. Also, any Member who

has reached Normal Retirement is assumed to continue employment for one

additional year.

This assumption is reasonable based on Plan provisions.

Early Retirement: Commencing with eligibility for Early Retirement Age (age 50 with 10 years of

Service), Members are assumed to retire with an immediate subsidized benefit at the

rate of 5% per year.

This assumption is reasonable based on Plan provisions.

Interest Rate:

Disability Rate: See table below (1201). It is assumed that 75% of disablements and active Member

deaths are service-related.

The above rates are consistent with other Florida public safety Plans.

Termination Rate: See table below (1302). These rates are consistent with other Florida public safety

Plans.

Salary Increases: 6.0% per year until the assumed retirement age. This assumption is reasonable, based

on long-term Plan experience.

Additionally, projected salary at retirement is increased individually for each Member to account for non-regular compensation (but not exceeding amounts in place on November 4, 2012). These individual amounts are based on data provided by the

City.

Cost-of-Living (COLA): 1.46% automatic lifetime COLA, beginning one year after the Normal Retirement

Date for all Retirees and Beneficiaries except for Pre-Retirement Death Beneficiaries.

Payroll Growth: None

Funding Method: Entry Age Normal Actuarial Cost Method, with a funding load based on the current

6.0% salary increase assumption.

Amortization Method: Level Dollar, Closed.

Remaining Amortization Period: 26 Years (as of 10/01/2016 Valuation).

Actuarial Asset Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the

historical geometric four-year average Market Value return (net of fees). It is possible that over time this technique will produce an insignificant bias above or

below Market Value of Assets.

Termination and Disability Rate Table:

	% Terminating	% Becoming
	During the	Disabled During
Age	Year	the Year
20	6.00%	0.03%
30	5.00%	0.04%
40	2.60%	0.07%
50	0.80%	0.18%

## EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

The f	ollowing	informat	tion is	not requi	ed to	be disc	closed b	out is j	provide	d fo	r inf	ormat	ional	purp	oses.
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# FINAL COMPONENTS OF PENSION EXPENSE FISCAL YEAR SEPTEMBER 30, 2018

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ (94,905)	\$ 40,138	\$ 479,350	\$ -
Employer and State Contributions made after 09/30/2017	-	-	63,092	-
Total Pension Liability Factors:				
Service Cost	43,637	-	-	43,637
Interest	473,710	-	-	473,710
Share Plan Allocation	23,267	-	-	23,267
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience				
with regard to economic or demographic assumptions	(107,123)	107,123	-	-
Current year amortization of experience difference	-	(107,123)	-	(107,123)
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	(354,136)	-	-	-
Net change	79,355		63,092	433,491
Plan Fiduciary Net Position:				
Contributions - State	58,391	-	(58,391)	-
Contributions - Employee	7,358	_	-	(7,358)
Projected Net Investment Income	478,254	_	-	(478,254)
Difference between projected and actual earnings on				
Pension Plan investments	240,342	240,342	-	-
Current year amortization	-	(68,139)	(133,508)	65,369
Benefit Payments, including Refunds of Employee		, , ,	, ,	
Contributions	(354,136)	_	-	-
Administrative Expenses	(54,683)	_	-	54,683
Net change	375,526	172,203	(191,899)	(365,560)
Ending Balance	\$ (391,076)	\$ 212,341	\$ 350,543	\$ 67,931

# PRELIMINARY COMPONENTS OF PENSION EXPENSE FISCAL YEAR SEPTEMBER 30, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ (391,076)	\$ 212,341	\$ 350,543	\$ -
Employer and State Contributions made after 09/30/2018	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	21,881	-	-	21,881
Interest	478,398	-	-	478,398
Share Plan Allocation	28,839	-	-	28,839
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience				
with regard to economic or demographic assumptions	(121,947)	121,947	-	-
Current year amortization of experience difference	-	(121,947)	-	(121,947)
Change in assumptions about future economic or				
demographic factors or other inputs	349,415	-	349,415	-
Current year amortization of change in assumptions	-	-	(349,415)	349,415
Benefit Payments, including Refunds of Employee				
Contributions	(352,143)	-	-	-
Net change	404,443			756,586
Plan Fiduciary Net Position:				
Contributions - State	63,092	-	(63,092)	=
Contributions - Employee	4,159	_	-	(4,159)
Projected Net Investment Income	508,598	_	-	(508,598)
Difference between projected and actual earnings on				
Pension Plan investments	(30,684)	_	30,684	-
Current year amortization	-	(68,137)	(139,643)	71,506
Benefit Payments, including Refunds of Employee				
Contributions	(352,143)	-	-	-
Administrative Expenses	(50,639)	-	-	50,639
Net change	142,383	(68,137)	(172,051)	(390,612)
Ending Balance	\$ (129,016)	\$ 144,204	TBD	\$ 365,974

<sup>\*</sup> Employer and State Contributions subsequent to the measurement date made after September 30, 2018 but made on or before September 30, 2019 need to be added.

## 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

	Diffe	erences Between														
Plan Year	Proje	cted and Actual	Recognition													
Ending		Earnings	Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		2028	
																_
2014	\$	(100,345)	5	\$ (20,069)	\$ (20,069)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-
2015	\$	565,351	5	\$ 113,070	\$ 113,070	\$ 113,070	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-
2016	\$	102,187	5	\$ 20,438	\$ 20,437	\$ 20,437	\$ 20,437	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-
2017	\$	(240,342)	5	\$ (48,070)	\$ (48,068)	\$ (48,068)	\$ (48,068)	\$ (48,068)	\$ -	\$ -	\$ -	\$ -	\$	-	\$	-
2018	\$	30,684	5	\$ -	\$ 6,136	\$ 6,137	\$ 6,137	\$ 6,137	\$ 6,137	\$ -	\$ -	\$ -	\$	-	\$	-
Net Increas	e (Dec	rease) in Pension	Expense	\$ 65,369	\$ 71,506	\$ 91,576	\$ (21,494)	\$ (41,931)	\$ 6,137	\$ -	\$ _	\$ -	\$ 	-	\$ 	_

## AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2018		2019	2020		2021	2022	2023	2024	2025	2026	2027	2028	3
2018	\$ 349,415	5 1	\$	- \$	349,415	8	- \$	-	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
Net Increase	(Decrease) in Pension	on Expense	\$	- \$	349,415	8	- \$		- \$	- \$	- \$	- \$	- \$	- \$	- \$	

## 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		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2017 2018	\$ (107,123) \$ (121,947)		\$ (107,123) \$ -	\$ - \$ \$ (121,947) \$		- \$ - \$	¢.	Φ	- \$ - - \$ -				
Net Increas	e (Decrease) in Pension	Expense	\$ (107.123)	\$ (121.947) <b>\$</b>		- <b>\$</b>	- <b>S</b>	- \$	- <b>\$</b>	- \$	- <b>\$</b>	- \$ -	- S -