# MIAMI SPRINGS GENERAL EMPLOYEES RETIREMENT SYSTEM

ANNUAL ACTUARIAL VALUATION AS OF OCTOBER 1, 2017

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2019







April 25, 2018

Board of Trustees City of Miami Springs General Employees Retirement System Miami Springs, Florida

**Dear Board Members:** 

The results of the October 1, 2017 Annual Actuarial Valuation of the City of Miami Springs General Employees Retirement System are presented in this report.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report does not include an assessment of the risks of future experience not meeting the actuarial assumptions, as assessment of these risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the Plan's financial condition.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2019, and to report the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2017. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2018. This report should not be relied on for any purpose other than the purpose described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The findings in this report are based on data or other information through September 30, 2017. Future actuarial measurements may differ significantly from the current measurements presented

Board of Trustees City of Miami Springs General Employees Retirement System April 25, 2018 Page ii

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; 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 plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The valuation was based upon information furnished by the City and the Plan Administrator concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the City and the Plan Administrator.

In addition, this report was prepared using certain assumptions approved by the Board and prescribed by the Florida Statutes as described in the section of this report entitled "Actuarial Assumptions and Cost Method". The prescribed assumptions are the assumed mortality rates detailed in the Actuarial Assumptions and Cost Method section in accordance with the Florida Statutes Chapter 112.63.

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 Miami Springs General Employees Retirement 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.

Peter N. Strong and Nicolas Lahaye 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 herein. The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the system and/or paid from the system's assets for which liabilities or current costs have



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not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in system costs or required contribution rates have been taken into account in the valuation.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

Peter N. Strong, FSA, MAA, FCA Enrolled Actuary No. 17-6975 Nicolas Lahaye, FSA, MAAA, FCA Enrolled Actuary No. 17-7775



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# **SECTION A**

DISCUSSION OF VALUATION RESULTS

# **DISCUSSION OF VALUATION RESULTS**

# **Comparison of Required Employer Contributions**

The required employer contribution developed in this year's valuation is compared below to last year's results.

	For FYE 9/30/2019 Based on 10/1/2017 Valuation	Based on Based on 10/1/2017 10/1/2016	
Required Employer Contribution Before Threshold is Applied, assuming equal installments throughout the year As % of Covered Payroll	\$ 571,381	\$ 543,146	\$ 28,235
	16.70 %	16.78 %	(0.08) %
Required Employer Contribution After Threshold is Applied, assuming equal installments throughout the year As % of Covered Payroll	\$ 456,762	\$ 433,417	\$ 23,345
	13.35 %	13.39 %	(0.04) %
Required Employer Contribution After Threshold is Applied, assuming full payment on October 1st As % of Covered Payroll	\$ 440,599	\$ 417,970	\$ 22,629
	12.88 %	12.91 %	(0.03) %
As % of Total Payroll including DROP participants	11.53 %	10.80 %	0.73 %
Member Contribution Rate	8.35 %	8.39 %	(0.04) %

The required contribution of \$440,599 has been calculated under the assumption that full payment will be made on October 1, 2018. The actual employer contribution for the year ending September 30, 2017 was \$338,551. The required contribution reflecting actual payment timing was \$338,551.

#### **Revision in Benefits**

There have been no revisions in benefits since the last valuation.

# **Revisions in Actuarial Assumptions or Methods**

The assumed investment return assumption has been reduced by 0.25% from 7.50% to 7.25%. Assumed rates of salary increase, retirement, withdrawal, and disability have also been revised based on a 9-year experience study performed for the Plan since the prior valuation. Please see the Actuarial Assumptions and Cost Method subsection of this report as well as the Assumption Study and Experience Review for the Nine-Year Period Ending September 30, 2016, dated December 22,



2017, for additional information on the revised assumptions. The new assumptions were adopted by the Pension Board in March 2018 for initial use in this October 1, 2017 Actuarial Valuation Report. The aggregate impact of the assumption changes was an increase in the required contribution of 1.04% of covered payroll.

# **Actuarial Experience**

There was a net actuarial gain of \$257,623 for the year which means that actual experience was more favorable than expected. The gain is primarily due to a recognized investment return (on the actuarial value of assets) above the assumed rate of 7.5%. The actual investment return was 10.1% based on the actuarial value of assets and 11.4% based on the market value of assets. The investment gain was partially offset by modest demographic experience losses. The demographic losses are primarily attributable to the addition of a beneficiary in payment status (who was not previously reported) and lower than expected retiree mortality, partially offset by lower than expected salary increases and more terminations of employment than expected. The actual average salary increase from FY 2016 to FY 2017 was 3.9% versus 6.8% expected. The net actuarial gain reduced the required employer contribution by 0.71% of covered payroll (before the threshold is applied).

### **Funded Ratio**

The funded ratio, one measure of the Plan's financial health, is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability. The funded ratio is 90.1% this year (after reflecting assumption changes) compared to 90.8% last year. The funded ratio this year was 92.4% prior to reflecting the assumption changes.

# **Analysis of Change in Employer Contribution**

The components of change in the required contribution as a percent of payroll are as follows:

Contribution Rate Last Year*	16.18 %
Experience (Gains) or Losses	(0.71)
Revision in Assumptions/Methods	1.04
Amortization Payment on UAAL	(0.19)
Normal Cost Rate	(0.07)
Administrative Expense	(0.14)
Contribution Rate This Year*	16.11

<sup>\*</sup>Before threshold is applied, assuming full payment on October 1st.



## **Variability of Future Contribution Rates**

The Actuarial Cost Method used to determine the contribution rate is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary significantly from year-to-year. Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

The Market Value of Assets exceeds the Actuarial Value of Assets by \$858,837 as of the valuation date (see Section C). This difference will be gradually recognized over the next five years. In turn, the computed employer contribution rate will decrease by approximately 2.33% of covered payroll (before the threshold is applied) over the same period in the absence of offsetting losses.

# **Relationship to Market Value**

If we were not using an asset smoothing method, the City contribution rate would have been 13.78% (before the threshold is applied and assuming payment is made in full at the beginning of the year) and the funded ratio would have been 94.5%. In the absence of other gains and losses or assumption changes, the City contribution rate would be expected to decrease to approximately that level over the next five years.

### **Conclusion**

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.



# **SECTION B**

**VALUATION RESULTS** 

PARTICIPANT DATA							
	October 1, 2017  After Changes		October 1, 2017  Before Changes		Oc	tober 1, 2016	
ACTIVE MEMBERS							
Number Covered Annual Payroll Average Annual Payroll Average Age Average Past Service	\$ \$	73 3,305,740 45,284 40.4 6.5	\$ \$	73 3,325,714 45,558 40.4 6.5	\$	70 3,112,373 44,462 40.1 6.3	
Average Age at Hire		33.9		33.9		33.8	
RETIREES, BENEFICIARIES & DROP							
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	87 1,297,058 14,909 73.0	\$ \$	87 1,297,058 14,909 73.0	\$	89 1,306,800 14,683 72.8	
DISABILITY RETIREES							
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	2 30,030 15,015 65.7	\$ \$	2 30,030 15,015 65.7	\$ \$	2 30,030 15,015 64.7	
TERMINATED VESTED MEMBERS							
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	7 66,642 9,520 51.2	\$ \$	7 66,642 9,520 51.2	\$	6 57,282 9,547 52.8	



ACTUARIALLY DETERMINED (REQUIRED) CONTRIBUTION (ADC)							
A. Valuation Date	October 1, 2017	October 1, 2017	October 1, 2017	October 1, 2016			
	After Changes & Assuming City Contribution made October 1st	After Changes	Before Changes	Assuming City Contribution made October 1st			
B. ADC to Be Paid During Fiscal Year Ending	9/30/2019	9/30/2019	9/30/2019	9/30/2018			
C. Assumed Dates of Employer Contributions	10/1/2018	Evenly	Evenly	10/1/2017			
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 169,482	\$ 169,482	\$ 134,689	\$ 153,931			
E. Employer Normal Cost	363,119	363,119	366,390	349,525			
F. Employer ADC if Paid on the Valuation Date: D+E	532,601	532,601	501,079	503,456			
G. Employer ADC Adjusted for Frequency of Payments	532,601	551,977	519,915	503,456			
H. Employer ADC as % of Covered Payroll	16.11 %	16.70 %	15.63 %	16.18 %			
Assumed Rate of Increase in Covered     Payroll to Contribution Year	3.50 %	3.50 %	4.00 %	4.00 %			
J. Covered Payroll for Contribution Year	3,421,441	3,421,441	3,458,743	3,236,868			
K. Employer ADC for Contribution Year Before Threshold: H x J	551,194	571,381	540,602	523,725			
L. Employer ADC as % of Covered Payroll in Contribution Year Before 10% Threshold: K÷J	16.11 %	16.70 %	15.63 %	16.18 %			
M. Employer ADC after Threshold	440,599	456,762	443,411	417,970			
N. Employer ADC as % of Covered Payroll after Threshold: M ÷ J	12.88 %	13.35 %	12.82 %	12.91 %			
O. Member Contribution Rate	8.35 %*	8.35 %	7.81 %	8.39 %*			

<sup>\*</sup> Member Contributions are still assumed to be made evenly throughout the year.



ACTUARIAL VALUE OF BENEFITS AND ASSETS						
A. Valuation Date     B. Actuarial Present Value of All Projected     Benefits for	October 1, 2017 After Changes	October 1, 2017 Before Changes	October 1, 2016			
<ol> <li>Active Members         <ul> <li>a. Service Retirement Benefits</li> <li>b. Vesting Benefits</li> <li>c. Disability Benefits</li> <li>d. Preretirement Death Benefits</li> <li>e. Return of Member Contributions</li> <li>f. Total</li> </ul> </li> </ol>	\$ 7,642,646 1,117,765 70,291 147,960 128,795 9,107,457	\$ 7,379,373 980,808 393,300 147,794 120,130 9,021,405	\$ 6,589,697 951,339 371,967 140,258 96,168 8,149,429			
<ul> <li>Inactive Members</li> <li>a. Service Retirees &amp; Beneficiaries</li> <li>b. Disability Retirees</li> <li>c. Terminated Vested Members</li> <li>d. Total</li> </ul>	12,643,926 265,609 514,049 13,423,584	12,402,890 260,851 496,447 13,160,188	12,590,932 264,884 422,040 13,277,856			
3. Total for All Members	22,531,041	22,181,593	21,427,285			
C. Actuarial Accrued (Past Service) Liability	19,316,048	18,835,892	18,254,929			
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	17,789,173	17,395,770	17,138,714			
E. Plan Assets 1. Market Value 2. Actuarial Value	18,262,527 17,403,690	18,262,527 17,403,690	17,129,701 16,570,614			
F. Unfunded Actuarial Accrued Liability: (C - E2)	1,912,358	1,432,202	1,684,315			
G. Actuarial Present Value of Projected Covered Payroll	23,899,339	24,394,298	23,009,145			
H. Actuarial Present Value of Projected  Member Contributions	1,194,967	1,219,715	1,150,457			
Accumulated Value of Active     Member Contributions	1,412,819	1,412,819	1,214,157			



CALCULATION OF EMPLOYER NORMAL COST							
A. Valuation Date	October 1, 2017  After Changes	October 1, 2017 Before Changes	October 1, 2016				
B. Normal Cost for							
<ol> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total for Future Benefits</li> <li>Assumed Amount for Administrative Expenses</li> <li>Total Normal Cost</li> </ol>	\$ 324,994 90,070 3,697 7,818 18,522 445,101 83,305 528,406	\$ 312,156 84,692 28,189 7,882 16,452 449,371 83,305 532,676	\$ 293,618 79,645 26,818 7,582 15,046 422,709 82,435 505,144				
C. Expected Member Contribution	165,287	166,286	155,619				
D. Employer Normal Cost: B8-C	363,119	366,390	349,525				
E. Employer Normal Cost as % of Covered Payroll	10.98 %	11.02 %	11.23 %				



# LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

Original UAAL						Cui	rent UAAL		
		Amortization Period			Years				
FYE	Source	(Years)		Amount	Remaining	,	Amount	Pa	ayment
10/1/2009	Initial Unfunded	30	\$	(27,259)	22	\$	135,817	\$	11,687
10/1/2010	(Gain)/Loss	20		117,494	13		116,134		13,140
10/1/2010	Assumption Change	30		140,520	23		154,558		13,059
10/1/2011	(Gain)/Loss	20		327,186	14		283,085		30,635
10/1/2011	Assumption Change	30		147,089	24		141,155		11,728
10/1/2012	(Gain)/Loss	20		377,521	15		337,860		35,136
10/1/2012	Assumption Change	30		152,846	25		148,295		12,133
10/1/2013	(Gain)/Loss	20		203,827	16		181,134		18,176
10/1/2013	Assumption Change	30		156,294	26		148,285		11,963
10/1/2014	(Gain)/Loss	20		(279,983)	17		(258,436)		(25,110)
10/1/2015	(Gain)/Loss	20		(12,884)	18		(12,610)		(1,190)
10/1/2016	(Gain)/Loss	20		(16,073)	19		(16,127)		(1,482)
10/1/2016	Assumption Change	30		326,373	29		330,675		25,734
10/1/2017	(Gain)/Loss	20		(257,623)	20		(257,623)		(23,116)
10/1/2017	Assumption Change	30		480,156	30		480,156		36,989
			\$	1,835,484		\$	1,912,358	\$	169,482

# **Amortization Schedule**

The UAAL is being liquidated as a level dollar amount over the number of years remaining in the amortization period. The following schedule illustrates the expected amortization of the UAAL:

Amortization Schedule					
Year	Expected UAAL				
2017	\$ 1,912,358				
2018	1,869,233				
2019	1,822,984				
2020	1,773,381				
2021	1,720,181				
2022	1,663,124				
2027	1,309,459				
2032	869,654				
2037	668,549				
2042	266,418				
2047	0				



# **ACTUARIAL GAINS AND LOSSES**

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

Deri	Derivation of the Current UAAL						
1.	Last Year's UAAL	\$	1,684,315				
2.	Last Year's Employer Normal Cost*		222,229				
3.	Last Year's Contributions*		338,551				
4.	Interest at the Assumed Rate on: a. 1 and 2 for one year b. 3 from dates paid c. a - b	-	142,991 21,159 121,832				
5.	This Year's Expected UAAL: 1+2-3+4c		1,689,825				
6.	This Year's Actual UAAL (Before any changes in benefits and/or assumptions)		1,432,202				
7.	Net Actuarial Gain (Loss): (5) - (6)		257,623				
8.	Gain (Loss) due to investments		438,271				
9.	Gain (Loss) due to other sources		(180,648)				
10.	Change in UAAL due to assumption change		480,156				
11.	This Year's Actual UAAL (After assumption change)		1,912,358				

<sup>\*</sup>Reflecting 9.09% employee contribution rate for fiscal year beginning October 1, 2016.

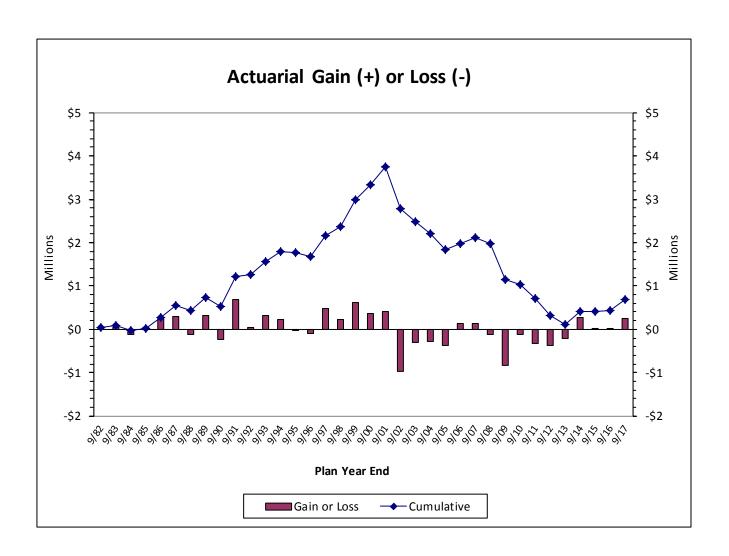


Net actuarial gains in previous years have been as follows:

Net Gain (Loss)					
Program A	Program B	Total			
(2,335) 46,535 (58,275) (10,290) 82,066	\$ 44,869 581 (57,793) 56,699 164,139	\$ 42,534 47,116 (116,068) 46,409 246,205			
119,175 (17,814)  	170,784 (110,004)  	289,959 (127,818) 315,845 (226,101) 697,646			
  	   	41,913 314,306 229,013 (23,052) (94,520)			
  	   	470,551 216,517 612,683 360,328 412,403			
  	   	(973,805) (306,284) (276,317) (368,464) 141,707			
  	   	136,442 (127,451) (834,865) (117,494) (327,186)			
   	   	(377,521) (203,827) 279,983 12,884 16,073 257,623			

Note: After 1988, Programs A and B combined.





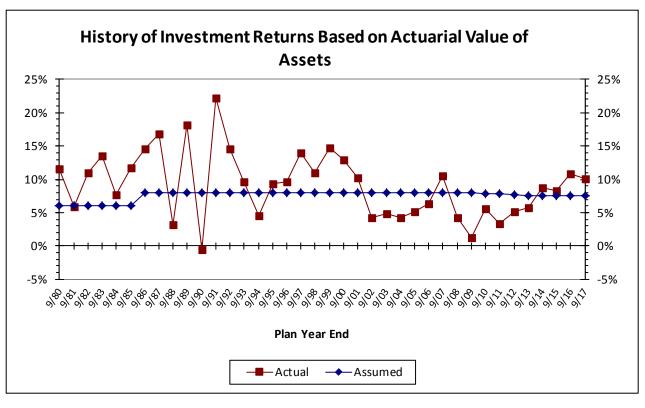


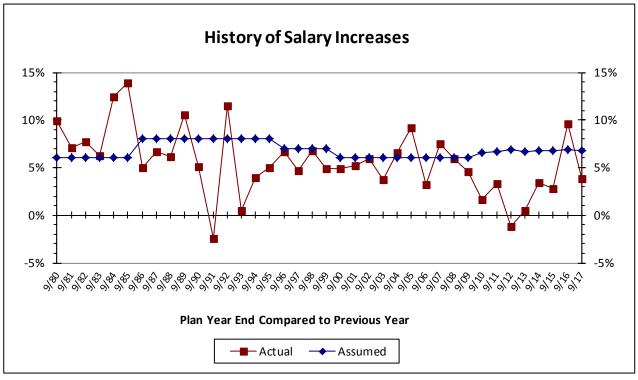
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

	Investmen	t Return	Salary Ir	ncreases
Year Ending	Actual	Assumed	Actual	Assumed
9/30/1980	11.6 %	6.0 %	9.9 %	6.0 %
9/30/1981	5.9	6.0	7.1	6.0
9/30/1982	11.0	6.0	7.7	6.0
9/30/1983	13.6	6.0	6.3	6.0
9/30/1984	7.7	6.0	12.4	6.0
9/30/1985	11.8	6.0	13.9	6.0
9/30/1986	14.5	8.0	5.0	8.0
9/30/1987	16.8	8.0	6.7	8.0
9/30/1988	3.2	8.0	6.2	8.0
9/30/1989	18.2	8.0	10.6	8.0
9/30/1990	(0.5)	8.0	5.1	8.0
9/30/1991	22.2	8.0	(2.4)	8.0
9/30/1992	14.6	8.0	11.5	8.0
9/30/1993	9.6	8.0	0.5	8.0
9/30/1994	4.6	8.0	4.0	8.0
9/30/1995	9.4	8.0	5.0	8.0
9/30/1996	9.6	8.0	6.7	7.0
9/30/1997	13.9	8.0	4.7	7.0
9/30/1998	11.0	8.0	6.8	7.0
9/30/1999	14.7	8.0	4.9	7.0
9/30/2000	12.9	8.0	4.9	6.0
9/30/2001	10.2	8.0	5.2	6.0
9/30/2002	4.3	8.0	5.9	6.0
9/30/2003	4.8	8.0	3.7	6.0
9/30/2004	4.2	8.0	6.6	6.0
9/30/2005	5.2	8.0	9.2	6.0
9/30/2006	6.3	8.0	3.2	6.0
9/30/2007	10.6	8.0	7.5	6.0
9/30/2008	4.2	8.0	5.9	6.0
9/30/2009	1.3	8.0	4.6	6.0
9/30/2010	5.6	7.9	1.7	6.6
9/30/2011	3.3	7.8	3.3	6.7
9/30/2012	5.1	7.7	(1.2)	6.9
9/30/2013	5.8	7.6	0.5	6.7
9/30/2014	8.8	7.5	3.4	6.8
9/30/2015	8.4	7.5	2.9	6.8
9/30/2016	10.8	7.5	9.6	6.8
9/30/2017	10.1	7.5	3.9	6.8
Averages	9.0 %		5.6 %	

The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.









# Actual (A) Compared to Expected (E) Decrements Among Active Employees

Year	Num Add Dur Ye	led ing	DF	ice & ROP ement	Disab Retire	-	De	ath	Te Vested	erminat Other		tals	Active Members End of
Ended	Α	Ε	Α	E	Α	E	Α	E	Α	Α	Α	E	Year
9/30/2002 9/30/2003	17 9	16 7	8	12 9	0	0	0	0	3 4	5 2	8	4	88 90
9/30/2003	10	17	3	10	0	0	0	0	2	12	14	4	83
9/30/2005	12	17	6	7	0	1	0	1	3	8	11	3	78
9/30/2006	19	15	3	7	0	0	0	0	0	12	12	3	82
9/30/2007	6	8	0	7	0	0	0	0	2	6	8	3	80
9/30/2008	7	12	0	10	0	0	1	0	1	10	11	3	75
9/30/2009	4	6	1	10	0	0	0	0	1	4	5	3	73
9/30/2010	12	6	2	8	0	0	0	0	1	3	4	5	79
9/30/2011	6	15	11	8	0	0	1	0	0	3	3	6	70
9/30/2012	4	12	5	5	0	0	0	0	2	5	7	6	62
9/30/2013	4	11	5	3	0	0	0	0	3	3	6	4	55
9/30/2014	4	9	5	4	0	0	1	0	1	2	3	4	50
9/30/2015	9	7	4	3	0	0	0	0	2	1	3	4	52
9/30/2016	28	10	3	2	1	0	0	0	1	5	6	5	70
9/30/2017	15	12	0	1	0	0	0	0	3	9	12	9	73
9/30/2018				1		0		0				10	
16 Yr Totals *	166	180	56	106	1	1	4	1	29	90	119	70	

<sup>\*</sup> Totals are through current Plan Year only



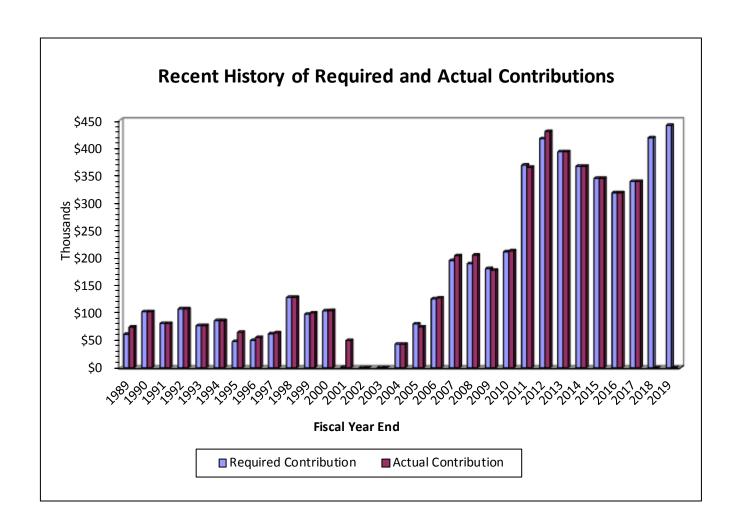
RECENT HISTORY OF VALUATION RESULTS									
	Number of							Employer Normal Cost	
Valuation Date	Active Members	Inactive Members	Covered Annual Payroll	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Amount	% of Payroll
10/1/91	86	33	\$ 2,162,473	\$ 4,555,581	\$ 3,460,829	\$ (1,094,752)	131.6 %		3.13 %
10/1/92	85	36	2,442,571	4,976,504	4,237,651	(738,853)	117.4	75,670	3.10
10/1/93	95	36	2,491,348	5,460,492	4,369,493	(1,090,999)	125.0	42,189	1.69
10/1/94	95	35	2,550,907	5,752,917	4,456,390	(1,296,527)	129.1	44,036	1.73
10/1/95	97	40	2,602,431	6,270,385	5,318,611	(951,774)	117.9	54,597	2.10
10/1/96	98	41	2,863,384	6,830,478	5,955,713	(874,765)	114.7	113,027	3.95
10/1/97	96	42	2,916,129	7,703,046	6,380,390	(1,322,656)	120.7	85,972	2.95
10/1/98	94	44	2,977,751	8,495,731	6,883,280	(1,612,451)	123.4	74,966	2.52
10/1/99	90	49	2,863,379	9,646,613	7,308,588	(2,338,025)	132.0	(48,901)	(1.71)
10/1/00	93	51	3,069,479	10,780,335	8,273,005	(2,507,330)	130.3	(50,445)	(1.64)
10/1/01	87	53	2,987,599	11,671,813	9,132,700	(2,539,113)	127.8	(86,060)	(2.88)
10/1/02	88	60	3,222,834	11,845,208	9,776,521	(2,068,687)	121.2	38,617	1.20
10/1/03	90	62	3,262,260	12,040,035	10,265,029	(1,775,006)	117.3	73,162	2.24
10/1/04	83	66	3,160,625	12,194,853	10,766,920	(1,427,933)	113.3	114,745	3.63
10/1/05	78	72	3,155,692	12,407,308	11,326,985	(1,080,323)	109.5	178,678	5.66
10/1/06	82	66	3,157,952	12,767,033	11,434,793	(1,332,240)	111.7	173,533	5.50
10/1/07	80	68	3,364,865	13,786,880	12,271,087	(1,515,793)	112.4	166,555	4.95
10/1/08	75	67	3,429,028	13,945,299	12,736,662	(1,208,637)	109.5	194,819	5.68
10/1/09	73	67	3,495,598	13,736,039	13,708,780	(27,259)	100.2	347,141	9.93
10/1/10	79	66	3,731,068	14,132,944	14,515,197	382,253	97.4	379,050	10.16
10/1/11	70	74	3,221,566	14,316,041	15,232,512	916,471	94.0	337,176	10.47
10/1/12	62	78	2,821,874	14,537,003	15,971,613	1,434,610	91.0	305,853	10.84
10/1/13	55	84	2,430,353	14,657,002	16,482,270	1,825,268	88.9	265,890	10.94
10/1/14	50	88	2,238,008	15,260,442	16,757,713	1,497,271	91.1	260,482	11.64
10/1/15	52	93	2,379,287	15,830,330	17,237,855	1,407,525	91.8	287,565	12.09
10/1/16	70	97	3,112,373	16,570,614	18,254,929	1,684,315	90.8	349,525	11.23
10/1/17	73	96	3,305,740	17,403,690	19,316,048	1,912,358	90.1	363,119	10.98



RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS							
	Required City						
Valuation	For Fiscal Year Ended	I Year Ended Contribution*		Actual City			
Date	September 30		% of	Contribution			
,		Amount	Payroll				
10/1/87	1989	60,925	3.35	74,102			
10/1/88	1990	101,962	5.32	101,962			
10/1/89	1991	80,477	3.69	80,477			
10/1/90	1992	107,013	4.80	107,013			
10/1/91	1993	76,662	3.55	76,662			
10/1/92	1994	85,691	3.51	85,691			
10/1/93	1995	47,776	1.92	64,713			
10/1/94	1996	49,868	1.95	55,128			
10/1/95	1997	61,827	2.38	63,427			
10/1/96	1998	127,995	4.47	127,995			
10/1/97	1999	97,357	3.34	99,564			
10/1/98	2000	103,440	3.47	103,846			
10/1/99	2001	789	0.03	49,687			
10/1/00	2002	0	0.00	0			
10/1/01	2003	0	0.00	0			
10/1/02	2004	42,827	1.36	42,827			
10/1/03	2005	79,730	2.35	74,265			
10/1/04	2006	125,237	3.81	126,928			
10/1/05	2007	194,946	5.94	203,625			
10/1/06	2008	189,174	5.76	204,774			
10/1/07	2009	180,222	5.15	177,356			
10/1/08	2010	210,762	5.91	212,519			
10/1/09	2011	368,268	10.13	364,282			
10/1/10	2012	416,357	10.73	429,403			
10/1/11	2013	392,670	11.72	392,670			
10/1/12	2014	366,204	12.48	366,204			
10/1/13	2015	344,236	13.62	344,236			
10/1/14	2016	317,957	13.66	317,957			
10/1/15	2017	338,551	13.68	338,551			
10/1/16	2018	417,970	12.91				
10/1/17	2019	440,599	12.88				

<sup>\*</sup> Reflecting threshold after fiscal year ending September 30, 2010 and reflecting beginning of year expected contribution timing (October  $\mathbf{1}^{\text{st}}$ ) after fiscal year ending September 30, 2013.







# ACTUARIAL ASSUMPTIONS AND COST METHOD

### **Valuation Methods**

**Actuarial Cost Method** - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

**Financing of Unfunded Actuarial Accrued Liabilities** - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) dollar contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets phases in the difference between the actual and expected investment earnings over a period of 5 years. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

## **Valuation Assumptions**

**The actuarial assumptions used** in the valuation are shown in this Section.

## **Economic Assumptions**

The investment return rate assumed in the valuations is 7.25% per year, compounded annually (net after investment expenses). This rate was 7.50% in the previous valuation.

The **Inflation Rate** assumed in this valuation was 2.5% per year. The Inflation Rate is defined to be the expected long-term rate of annual increases in the prices of goods and services. This rate was 3.0% in the previous valuation.

The assumed **real rate of return** over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.25% investment return rate translates to an assumed real rate of return over inflation of 4.75%.



The assumed rates of salary increase for individual active members are shown below. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. Part of the assumption is for productivity, merit and/or seniority increase, and 2.5% recognizes inflation. This assumption was changed this year (based on the results of a 9-year experience study) from the service-based rates used in the prior valuation, which varied from 4.0% to 8.0%.

	% Increase in Salary					
Years of	Merit and	Base	Total			
Service	Seniority	(Economic)	Increase			
0 - 1	4.00%	2.50%	6.50%			
2 - 3	3.75	2.50	6.25			
4 - 11	3.50	2.50	6.00			
12 - 15	1.75	2.50	4.25			
16+	1.00	2.50	3.50			

# **Demographic Assumptions**

The mortality table for healthy lives is the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates currently in use for Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes Chapter 112.63.

FRS Healthy Post-Retirement Mortality for Regular Class Members

Sample	Probabil	ity of	Future Life		
Attained	Dying Next Year		Expectano	cy (years)	
Ages (in 2017)	Men Women		Men	Women	
50	0.55 %	0.23 %	34.66	38.31	
55	0.60	0.32	30.03	33.29	
60	0.76	0.47	25.36	28.39	
65	1.15	0.74	20.84	23.65	
70	1.78	1.24	16.59	19.19	
75	2.97	2.09	12.73	15.11	
80	5.03	3.51	9.40	11.49	

This assumption is used to measure the probabilities of each benefit payment being made after retirement.



**FRS Healthy Pre-Retirement Mortality for Regular Class Members** 

Sample	Probabil	ity of	Future Life		
Attained	Dying Nex	xt Year	Expectan	cy (years)	
Ages (in 2017)	Men Women		Men	Women	
50	0.21 %	0.15 %	35.58	38.66	
55	0.36	0.24	30.46	33.51	
60	0.61	0.39	25.53	28.49	
65	1.08	0.70	20.88	23.67	
70	1.78	1.24	16.59	19.19	
75	2.97	2.09	12.73	15.11	
80	5.03	3.51	9.40	11.49	

This assumption is used to measure the probabilities of active members dying prior to retirement.

For disabled lives, the RP-2000 Mortality Table for Disabled Annuitants was used, with a two year set forward for females and a four year setback for males, with no provision being made for future mortality improvements. These are the same rates currently in use for Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes Chapter 112.63.

**FRS Disabled Mortality for Regular Class Members** 

Sample	Probabil	ity of	Future Life		
Attained	Dying Ne	xt Year	Expectancy (years)		
Ages (in 2017)	Men Women		Men	Women	
50	2.38 %	1.35 %	20.25	23.74	
55	3.03	1.87	17.78	20.46	
60	3.67	2.41	15.55	17.43	
65	4.35	3.13	13.44	14.58	
70	5.22	4.29	11.39	11.96	
75	6.58	5.95	9.43	9.65	
80	8.70	8.23	7.65	7.66	



The rates of retirement used to measure the probability of eligible members retiring are as shown below. This assumption was changed this year (based on the results of a 9-year experience study) from the rates used in the prior valuation which varied from 20% to 100% over the first 10 years of retirement eligibility.

Number of Years	
After First Eligibility	<b>Probability of</b>
for Normal Retirement	<b>Normal Retirement</b>
0	50 %
1 - 10	25
11+	100

The rate of retirement is 5% for each year of eligibility for early retirement.

Rates of separation from active membership are as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members separating from employment for reasons other than death, disability or retirement. This assumption was changed this year (based on the results of a 9-year experience study) from the age and service-based rates used in the prior valuation, which varied from 1% to 22%.

Years of	% of Active Members			
Service	Separating Within Next Year			
0 - 2	20.0 %			
3 - 4	12.5			
5 - 8	5.5			
9 - 17	4.0			
18+	3.0			

**Rates of disability** among active members were as shown below. These are the same rates currently in use for Regular Class members of the Florida Retirement System (FRS). This assumption was changed this year (based on the results of a 9-year experience study) from the age-based rates used in the prior valuation, which varied from 0.07% to 1.66%.

	% Becoming Disabled within Next Year						
Sample	Non S	ervice-	Service-C	Service-Connected			
Ages	Males	Females	Males	Females			
20	0.000%	0.000%	0.000%	0.000%			
25	0.010%	0.010%	0.001%	0.001%			
30	0.010%	0.010%	0.001%	0.001%			
35	0.020%	0.010%	0.001%	0.001%			
40	0.020%	0.020%	0.001%	0.001%			
45	0.080%	0.060%	0.004%	0.001%			
50	0.160%	0.100%	0.006%	0.006%			
55	0.250%	0.160%	0.006%	0.006%			
60	0.300%	0.260%	0.010%	0.013%			



# **Miscellaneous and Technical Assumptions**

**Administrative & Investment** 

**Expenses** 

The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the expenses over the previous 2 years. Assumed administrative expenses are added to

the Normal Cost.

**Benefit Service** Exact fractional service is used to determine the amount of benefit

payable.

**Decrement Operation**Disability and mortality decrements operate during retirement

eligibility.

**Decrement Timing** Decrements of all types are assumed to occur at the beginning of

the year.

**Eligibility Testing** Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the

decrement is assumed to occur.

**For feitures** For vested separations from service, it is assumed that 0% of

members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit

(if any) or the member's accumulated contributions.

**Incidence of Contributions** Employer contributions are assumed to be made in equal

installments at the end of each pay period. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.

Marriage Assumption 100% of males and 100% of females are assumed to be married for

purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member

valuation purposes.

**Normal Form of Benefit** A life annuity is the normal form of benefit.

Pay Increase Timing Middle of fiscal year. This is equivalent to assuming that reported

pays represent amounts paid to members during the year ended

on the valuation date.

Service Credit Accruals It is assumed that members accrue one year of service credit per

year.



# **GLOSSARY OF TERMS**

Actuarial Accrued Liability (AAL)

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** 

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.

Actuarially Determined Contribution (ADC)

The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADC consists of the Employer Normal Cost and Amortization Payment.

**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 (APV)

The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.

Actuarial Present Value of Future Benefits (APVFB)

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, nonretired 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 determined contribution (ADC).

**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.

**Amortization Payment** 

That portion of the plan contribution or ADC 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.

**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. On the other hand, 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.

GASB No. 67 and GASB No. 68

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

the systems themselves.

**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.



# **SECTION C**

**PENSION FUND INFORMATION** 

#### Statement of Plan Assets at Market Value

September 30 2017 2016 Item \$ \$ A. Cash and Cash Equivalents (Operating Cash) B. Receivables: \$ \$ 1. Member Contributions 2. Employer Contributions 3. Investment Income and Other Receivables 46,699 56,537 4. Total Receivables 46,699 56,537 C. Investments 1. Short Term Investments 390,689 319,288 2. Domestic Equities 11,854,604 10,556,169 3. International Equities 4. Domestic Fixed Income 5,181,273 5,700,165 5. International Fixed Income 6. Real Estate 1,597,589 1,502,327 7. Private Equity 19,024,155 \$ 18,077,949 8. Total Investments D. Liabilities 1. Benefits Payable \$ 2. Accrued Expenses and Other Payables (24,179)(44,679)3. Total Liabilities (24,179)(44,679)E. Total Market Value of Assets Available for Benefits \$ 19,046,675 \$ 18,089,807 F. DROP Accounts \$ (784, 148)(960, 106)G. Market Value Net of Reserves \$ 18,262,527 \$ 17,129,701 H. Allocation of Investments\* 1. Short Term Investments 2.0% 1.6% 2. Domestic Equities 62.4% 58.5% 3. International Equities 0.0% 0.0% 4. Domestic Fixed Income 27.2% 31.6% 5. International Fixed Income 0.0% 0.0% 6. Real Estate 8.3% 8.4% 7. Private Equity 0.0% 0.0% 8. Total Investments 100.0% 100.0%



<sup>\*</sup>Excluding amounts due to broker from short-term investments (\$6,988 as of September 30, 2017; \$23,748 as of September 30, 2016).

# **Reconciliation of Plan Assets**

		Septemb	er 30	
	Item	2017		2016
Α.	Market Value of Assets at Beginning of Year	\$ 18,089,807	\$	17,652,507
В.	Revenues and Expenditures			
	1. Contributions			
	a. Employee Contributions	\$ 283,972	\$	252,554
	b. Employer Contributions	338,551		317,957
	c. Purchased Service Credit	-		-
	d. Total	\$ 622,523	\$	570,511
	2. Investment Income			
	a. Interest, Dividends, and Other Income	\$ 408,237	\$	423,713
	b. Net Realized/Unrealized Gains/(Losses)	1,739,426		1,418,317
	c. Investment Expenses	(126,293)		(121,202)
	d. Net Investment Income	\$ 2,021,370	\$	1,720,828
	3. Benefits and Refunds			
	a. Regular Monthly Benefits	\$ (1,121,990)	\$	(924,335)
	b. Refunds	(18,047)		(39,929)
	c. Lump Sum Benefits Paid	-		-
	d. DROP Distributions	 (463,036)		(807,118)
	e. Total	\$ (1,603,073)	\$	(1,771,382)
	4. Administrative and Miscellaneous Expenses	\$ (83,952)	\$	(82,657)
	5. Transfers	\$ -	\$	-
C.	Market Value of Assets at End of Year	\$ 19,046,675	\$	18,089,807
D.	DROP Accounts	\$ (784,148)	\$	(960,106)
E.	Market Value Net of Reserves	\$ 18,262,527	\$	17,129,701



# **Development of Actuarial Value of Assets**

	Valuation Date – September 30	2016	2017	2018	2019	2020	2021
A.	Actuarial Value of Assets Beginning of Year	\$ 17,023,069	\$ 17,530,720				
В.	Market Value End of Year	18,089,807	19,046,675				
C.	Market Value Beginning of Year	17,652,507	18,089,807				
D.	Non-Investment/Administrative Net Cash Flow	(1,283,528)	(1,064,502)				
E.	Investment Income						
	E1. Actual Market Total: B-C-D	1,720,828	2,021,370				
	E2. Assumed Rate of Return	7.50%	7.50%	7.25%	7.25%	7.25%	7.25%
	E3. Assumed Amount of Return	1,240,521	1,283,349				
	E4. Amount Subject to Phase-In: E1–E3	480,307	738,021				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.2 x E4	96,061	147,604				
	F2. First Prior Year	(86,378)	96,061	147,604			
	F3. Second Prior Year	152,991	(86,378)	96,061	147,604		
	F4. Third Prior Year	127,993	152,991	(86,378)	96,061	147,604	
	F5. Fourth Prior Year	259,991	127,993	152,991	(86,378)	96,063	147,605
	F6. Total Phase-Ins	550,658	438,271	310,278	157,287	243,667	147,605
G.	Actuarial Value of Assets End of Year						
	G1. Preliminary Actuarial Value of Assets End of Year:						
	A+D+E3+F6	\$ 17,530,720	\$ 18,187,838				
	G2. Upper Corridor Limit: 120%*B	21,707,768	22,856,010				
	G3. Lower Corridor Limit: 80%*B	14,471,846	15,237,340				
	G4. Actuarial Value of Assets End of Year	17,530,720	18,187,838				
	G5. DROP Accounts	(960,106)	(784,148)				
	G6. Final Actuarial Value of Assets End of Year	16,570,614	17,403,690				
Н.	Difference between Market & Actuarial Value of Assets	559,087	858,837				
I.	Actuarial Rate of Return	10.83%	10.06%				
J.	Market Value Rate of Return	10.02%	11.44%				
K.	Ratio of Actuarial Value of Assets to Market Value	96.91%	95.49%				

The Actuarial Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment income (Line E4) are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 5 consecutive years, Actuarial Value of Assets will become equal to Market Value.



# **Reconciliation of DROP Accounts**

Year Ended 9/30	Balance at Beginning of Year	Adj	ustment	Credits	Interest	Dis	stributions	Balance at End of Year
2010	\$ 343,289	\$	-	\$ 76,894	\$ 8,837	\$	(285,437)	\$ 143,583
2011	\$ 143,583	\$	-	\$ 101,170	\$ (4,076)	\$	(110,841)	\$ 129,836
2012	\$ 129,836	\$	-	\$ 274,088	\$ 44,504	\$	-	\$ 448,428
2013	\$ 448,428	\$	-	\$ 356,657	\$ 74,150	\$	(108,760)	\$ 770,476
2014	\$ 770,476	\$	108,760	\$ 332,430	\$ 97,472	\$	(304,766)	\$1,004,372
2015	\$1,004,372	\$	36,550	\$ 326,274	\$ 50,098	\$	(224,555)	\$1,192,739
2016	\$1,192,739	\$	-	\$ 462,292	\$ 112,193	\$	(807,118)	\$ 960,106
2017	\$ 960,106	\$	-	\$ 203,086	\$ 83,992	\$	(463,036)	\$ 784,148



Year Ending	Investment F	Rate of Return
September 30	Market Value	Actuarial Value
1978	6.1 %	
1979	5.1	
1980	5.2	11.6 %
1981	2.1	5.9
1982	21.3	11.0
1983	13.6	13.6
1984	5.9	7.7
1985	17.5	11.8
1986	18.9	14.5
1987	11.1	16.8
1988	4.0	3.2
1989	18.2	18.2
1990	(0.5)	(0.5)
1991	22.2	22.2
1992	14.6	14.6
1993	11.5	9.6
1994	1.2	4.6
1995	19.3	9.4
1996	12.4	9.6
1997	28.3	13.9
1998	5.8	11.0
1999	12.9	14.7
2000	8.9	12.9
2001	1.5	10.2
2002	(4.6)	4.3
2003	14.5	4.8
2004	8.7	4.2
2005	9.0	5.2
2006	6.6	6.3
2007	13.4	10.6
2008	(12.8)	4.2
2009	(3.2)	1.3
2010	7.3	5.6
2011	(3.7)	3.3
2012	19.4	5.1
2013	12.2	5.8
2014	12.0	8.8
2015	4.5	8.4
2016	10.0	10.8
2017	11.4	10.1
Average Returns:		
Last 5 Years	10.0 %	8.8 %
Last 10 Years	5.3 %	6.3 %
All Years	9.0 %	9.0 %

The above rates are based on the retirement system's financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.





FINANCIAL ACCOUNTING INFORMATION

	FASB NO. 35 INFORM	ATION	
Α.	Valuation Date	October 1, 2017	October 1, 2016
В.	Actuarial Present Value of Accumulated Plan Benefits		
	1. Vested Benefits		
	<ul><li>a. Members Currently Receiving Payments</li><li>b. Terminated Vested Members</li><li>c. Other Members</li><li>d. Total</li></ul>	\$ 12,909,535 514,049 4,328,380 17,751,964	\$ 12,855,816 422,040 3,555,107 16,832,963
	2. Non-Vested Benefits	37,209	305,751
	3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	17,789,173	17,138,714
	4. Accumulated Contributions of Active Members	1,412,819	1,214,157
C.	Changes in the Actuarial Present Value of Accumulated Plan Benefits		
	1. Total Value at Beginning of Year	17,138,714	16,195,778
	2. Increase (Decrease) During the Period Attributable to:		
	a. Plan Amendment	0	0
	<ul><li>b. Change in Actuarial Assumptions</li><li>c. Latest Member Data, Benefits Accumulated</li></ul>	393,403	313,614
	and Decrease in the Discount Period	1,600,179	2,055,878
	d. Benefits Paid (net basis)	(1,343,123)	(1,426,556)
	e. Net Increase	650,459	942,936
	3. Total Value at End of Period	17,789,173	17,138,714
D.	Market Value of Assets	18,262,527	17,129,701
E.	Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods		



# SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS GASB Statement No. 67

Total pension liability         Ferrice Cost         4 449,371         \$ 425,585         \$ 327,212         \$ 298,401         \$ 138,203           Interest         1,433,050         1,346,616         1,332,765         2,284,01         1,281,464           Benefit Changes         -         -         -         -         -         -         -         -         34,570           Assumption Changes         462,188         347,759         -	Fiscal year ending September 30,	2018*	2017	2016	2015	2014
Interest         1,433,050         1,346,316         1,332,765         1,326,920         1,281,404           Benefit Changes         18.50         603,966         109,558         (166,972)         34,575           Assumption Changes         462,188         34,7759         1,731,453         609,392         709,794         809,392         609,392         609,392         609,392         609,392         609,392         609,392         609,392         609,392         609,392         609,392         609	Total pension liability					
Benefit Changes         Incompany	Service Cost	\$ 449,371	\$ 425,585	\$ 327,212	\$ 298,401	\$ 318,230
Difference between actual & expected experient         185,603         603,966         109,558         (166,972)         34,757           Assumption Changes         462,188         347,759         1.7         2.7         2.7           Benefit Payments         (1,526,332)         (1,585,026)         (1,731,433)         (993,482)         (908,787)           Net Change in Total Pension Liability - Beginning         19,447,386         18,226,833         18,328,830         17,917,408         27,252,746           Total Pension Liability - Beginning         19,447,386         18,326,833         18,328,830         2,791,7408         2,791,7408           Plan Fiduciary Net Position         2 417,970         \$ 338,551         8 317,957         3 44,236         \$ 366,204           Contributions - Employer (from state)         2 27,7352         2 83,972         2 52,554         340,231         18,855,33           Contributions - Member         2 277,352         2 83,972         17,20,283         766,343         1,903,591           Refunds         1,560,983         2,021,370         1,720,283         766,343         1,903,591           Refunds         1,560,983         1,850,983         1,830,893         1,830,893         1,933,893         1,933,893         1,933,893         1,933,893         1	Interest	1,433,050	1,346,316	1,332,765	1,326,920	1,281,464
Assumption Changes         462,188         347,759         "9.00	Benefit Changes	-	-	-	-	-
Benefit Payments         (1,526,93)         (1,585,02)         (1,731,43)         (993,48)         (908,787)           Refunds         (51,907)         (18,047)         (3,992)         (53,595)         (50,607)           Net Change in Total Pension Liability         951,373         1,212,553         (1,847)         411,272         664,662           Total Pension Liability - Beginning         19,447,386         1,326,833         1,328,868         1,791,408         2,725,744           Porticular Pension Liability - Ending (a)         417,978         8138,2683         1,328,888         1,917,408         2,725,744           Pon Fiduciary Net Position         417,979         8138,555         8131,955         8134,236         3,636,204         9,737,408           Contributions - Employer (from state)         2 <td>Difference between actual &amp; expected experience</td> <td>185,603</td> <td>603,966</td> <td>109,558</td> <td>(166,972)</td> <td>34,570</td>	Difference between actual & expected experience	185,603	603,966	109,558	(166,972)	34,570
Refunds         (51,907)         (18,047)         (39,929)         (53,595)         (60,675)           Net Change in Total Pension Liability - Beginning         19,447,386         1,212,553         1,832,683         1,832,683         1,717,740         1,712,724           Total Pension Liability - Ending (a)         2,039,875         9,847,386         1,832,683         1,832,683         1,717,740         1,712,714           Plan Fiduciary Net Position           Contributions - Employer (from state)         4,417,970         3,338,551         3,317,957         9,344,236         9,366,204         9,366,204           Contributions - Pemployer (from state)         2,277,352         2,283,972         2,255,54         3,404,23         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         2,832,552         2,832,525         3,835,555         1,835,555         3,835,555         1,835,555         1,835,555         1,835,555         3,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555         1,835,555	Assumption Changes	462,188	347,759	-	-	-
Net Change in Total Pension Liability - Beginning Total Pension Liability - Beginning Total Pension Liability - Beginning Total Pension Liability - Ending (a)         991,373         1,120,553         (1,847)         411,272         664,662           Total Pension Liability - Beginning Total Pension Liability - Ending (a)         19,447,386         18,326,833         18,328,680         17,917,408         17,252,746           Plan Fiduciary Net Position           Contributions - Employer         411,970         \$ 338,551         \$ 317,957         \$ 344,236         \$ 366,204           Contributions - Employer (from state)         2         188,555         2         2         2         2         366,204         2         2         2         2         283,912         2         252,554         2         208,312         1,885,555         2         2         2         1,895,592         2	Benefit Payments	(1,526,932)	(1,585,026)	(1,731,453)	(993,482)	(908,927)
Total Pension Liability - Beginning (a)         19,447,386         18,326,833         17,917,408         17,252,746           Total Pension Liability - Ending (a)         20,398,759         19,447,386         18,326,833         1,7917,408         17,917,408           Plan Fiduciary Net Position           Contributions - Employer (from state)         417,979         338,551         317,957         \$ 344,236         366,204           Contributions - Employer (from state)         2         188,555         2	Refunds	(51,907)	(18,047)	(39,929)	(53,595)	(60,675)
Total Pension Liability - Ending (a)         \$ 20,398,759         \$ 19,447,386         \$ 18,326,833         \$ 18,328,680         \$ 17,917,408           Plan Fiduciary Net Position         \$ 417,970         \$ 338,551         \$ 317,957         \$ 344,236         \$ 366,204           Contributions - Employer (from state)	Net Change in Total Pension Liability	951,373	1,120,553	(1,847)	411,272	664,662
Plan Fiduciary Net Position           Contributions - Employer         \$ 417,970         \$ 338,551         \$ 317,957         \$ 344,236         \$ 366,204           Contributions - Employer (from state)         - <td>Total Pension Liability - Beginning</td> <td>19,447,386</td> <td>18,326,833</td> <td>18,328,680</td> <td>17,917,408</td> <td>17,252,746</td>	Total Pension Liability - Beginning	19,447,386	18,326,833	18,328,680	17,917,408	17,252,746
Contributions - Employer         \$ 417,970         \$ 338,551         \$ 317,957         \$ 344,236         \$ 366,204           Contributions - Employer (from state)         - <td>Total Pension Liability - Ending (a)</td> <td>\$ 20,398,759</td> <td>\$ 19,447,386</td> <td>\$ 18,326,833</td> <td>\$ 18,328,680</td> <td>\$ 17,917,408</td>	Total Pension Liability - Ending (a)	\$ 20,398,759	\$ 19,447,386	\$ 18,326,833	\$ 18,328,680	\$ 17,917,408
Contributions – Employer (from state)         -	Plan Fiduciary Net Position					_
Contributions – Non-Employer contributing entity         -	Contributions - Employer	\$ 417,970	\$ 338,551	\$ 317,957	\$ 344,236	\$ 366,204
Contributions - Member         277,352         283,972         252,554         208,312         188,555           Net Investment Income         1,360,988         2,021,370         1,720,828         766,343         1,903,591           Benefit Payments         (1,526,932)         (1,585,026)         (1,731,453)         (993,482)         (908,927)           Refunds         (51,907)         (18,047)         (39,929)         (53,595)         (60,675)           Administrative Expense         (83,305)         (83,952)         (82,657)         (82,212)         (76,422)           Other         - <td>Contributions – Employer (from state)</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>	Contributions – Employer (from state)	-	-	-	-	-
Net Investment Income         1,360,988         2,021,370         1,720,828         766,343         1,903,591           Benefit Payments         (1,526,932)         (1,585,026)         (1,731,453)         (993,482)         (908,927)           Refunds         (51,907)         (18,047)         (39,929)         (53,595)         (60,675)           Administrative Expense         (83,305)         (83,952)         (82,657)         (82,212)         (76,422)           Other         - <t< td=""><td>Contributions – Non-Employer contributing entity</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></t<>	Contributions – Non-Employer contributing entity	-	-	-	-	-
Benefit Payments         (1,526,932)         (1,585,026)         (1,731,453)         (993,482)         (908,927)           Refunds         (51,907)         (18,047)         (39,929)         (53,595)         (60,675)           Administrative Expense         (83,305)         (83,952)         (82,657)         (82,212)         (76,422)           Other         -         -         -         -         -         -         -         -           Net Change in Plan Fiduciary Net Position - Beginning         19,046,675         18,089,807         17,652,507         17,462,905         16,050,579           Plan Fiduciary Net Position - Ending (b)         \$ 19,440,841         \$ 19,046,675         \$ 18,089,807         \$ 17,652,507         \$ 17,652,507         \$ 17,462,905           Net Pension Liability - Ending (a) - (b)         957,918         400,711         237,026         676,173         454,503           Plan Fiduciary Net Position as a Percentage         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786	Contributions - Member	277,352	283,972	252,554	208,312	188,555
Refunds         (51,907)         (18,047)         (39,929)         (53,595)         (60,675)           Administrative Expense         (83,305)         (83,952)         (82,657)         (82,212)         (76,422)           Other         -         -         -         -         -         -         -           Net Change in Plan Fiduciary Net Position         394,166         956,868         437,300         189,602         1,412,326           Plan Fiduciary Net Position - Beginning         19,046,675         18,089,807         17,652,507         17,462,905         16,050,579           Plan Fiduciary Net Position - Ending (b)         \$ 19,440,841         \$ 19,046,675         \$ 18,089,807         \$ 17,652,507         \$ 17,462,905           Net Pension Liability - Ending (a) - (b)         957,918         400,711         237,026         676,173         454,503           Plan Fiduciary Net Position as a Percentage         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786           Net Pension Liability as a Percentage         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786	Net Investment Income	1,360,988	2,021,370	1,720,828	766,343	1,903,591
Administrative Expense         (83,305)         (83,952)         (82,657)         (82,212)         (76,422)           Other         -	Benefit Payments	(1,526,932)	(1,585,026)	(1,731,453)	(993,482)	(908,927)
Other         - <td>Refunds</td> <td>(51,907)</td> <td>(18,047)</td> <td>(39,929)</td> <td>(53,595)</td> <td>(60,675)</td>	Refunds	(51,907)	(18,047)	(39,929)	(53,595)	(60,675)
Net Change in Plan Fiduciary Net Position         394,166         956,868         437,300         189,602         1,412,326           Plan Fiduciary Net Position - Beginning         19,046,675         18,089,807         17,652,507         17,462,905         16,050,579           Plan Fiduciary Net Position - Ending (b)         \$ 19,440,841         \$ 19,046,675         \$ 18,089,807         \$ 17,652,507         \$ 17,462,905           Net Pension Liability - Ending (a) - (b)         957,918         400,711         237,026         676,173         454,503           Plan Fiduciary Net Position as a Percentage         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786           Net Pension Liability as a Percentage	Administrative Expense	(83,305)	(83,952)	(82,657)	(82,212)	(76,422)
Plan Fiduciary Net Position - Beginning         19,046,675         18,089,807         17,652,507         17,462,905         16,050,579           Plan Fiduciary Net Position - Ending (b)         \$ 19,440,841         \$ 19,046,675         \$ 18,089,807         \$ 17,652,507         \$ 17,462,905           Net Pension Liability - Ending (a) - (b)         957,918         400,711         237,026         676,173         454,503           Plan Fiduciary Net Position as a Percentage         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786           Net Pension Liability as a Percentage	Other	-	-	-	-	-
Plan Fiduciary Net Position - Ending (b)         \$ 19,440,841         \$ 19,046,675         \$ 18,089,807         \$ 17,652,507         \$ 17,462,905           Net Pension Liability - Ending (a) - (b)         957,918         400,711         237,026         676,173         454,503           Plan Fiduciary Net Position as a Percentage of Total Pension Liability         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786           Net Pension Liability as a Percentage	Net Change in Plan Fiduciary Net Position	394,166	956,868	437,300	189,602	1,412,326
Net Pension Liability - Ending (a) - (b)         957,918         400,711         237,026         676,173         454,503           Plan Fiduciary Net Position as a Percentage of Total Pension Liability         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740         \$ 3,124,004         \$ 2,757,140         \$ 2,284,123         \$ 2,388,786           Net Pension Liability as a Percentage	Plan Fiduciary Net Position - Beginning	19,046,675	18,089,807	17,652,507	17,462,905	16,050,579
Plan Fiduciary Net Position as a Percentage         of Total Pension Liability       95.30 %       97.94 %       98.71 %       96.31 %       97.46 %         Covered Payroll       \$ 3,305,740       \$ 3,124,004       \$ 2,757,140       \$ 2,284,123       \$ 2,388,786         Net Pension Liability as a Percentage	Plan Fiduciary Net Position - Ending (b)	\$ 19,440,841	\$ 19,046,675	\$ 18,089,807	\$ 17,652,507	\$ 17,462,905
of Total Pension Liability         95.30 %         97.94 %         98.71 %         96.31 %         97.46 %           Covered Payroll         \$ 3,305,740 \$         3,124,004 \$         2,757,140 \$         2,284,123 \$         2,388,786           Net Pension Liability as a Percentage	Net Pension Liability - Ending (a) - (b)	957,918	400,711	237,026	676,173	454,503
Covered Payroll \$ 3,305,740 \$ 3,124,004 \$ 2,757,140 \$ 2,284,123 \$ 2,388,786  Net Pension Liability as a Percentage	Plan Fiduciary Net Position as a Percentage					
Net Pension Liability as a Percentage	of Total Pension Liability	95.30 %	97.94 %	98.71 %	96.31 %	97.46 %
	Covered Payroll	\$ 3,305,740	\$ 3,124,004	\$ 2,757,140	\$ 2,284,123	\$ 2,388,786
<b>of Covered Payroll</b> 28.98 % 12.83 % 8.60 % 29.60 % 19.03 %	Net Pension Liability as a Percentage					
	of Covered Payroll	28.98 %	12.83 %	8.60 %	29.60 %	19.03 %

<sup>\*</sup> These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



# SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY GASB Statement No. 67

	Total			Plan Fiduciary Net Position		Net Pension Liability
FY Ending September 30,	Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	as a % of Total  Pension Liability	Covered Payroll	Liability as a % of Covered Payroll
September 30,	Партту	Netrosition	Liability	relision Liability	<u> </u>	Covered Payron
2014	\$ 17,917,408	\$ 17,462,905	\$ 454,503	97.46%	\$ 2,388,786	19.03%
2015	18,328,680	17,652,507	676,173	96.31%	2,284,123	29.60%
2016	18,326,833	18,089,807	237,026	98.71%	2,757,140	8.60%
2017	19,447,386	19,046,675	400,711	97.94%	3,124,004	12.83%
2018*	20,398,759	19,440,841	957,918	95.30%	3,305,740	28.98%

<sup>\*</sup> These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



# NOTES TO EMPLOYERS NET PENSION LIABILITY GASB Statement No. 67

Valuation Date: October 1, 2017
Measurement Date: September 30, 2018

# Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method Entry Age Normal

Inflation 2.5%

Salary Increases 3.5% to 6.5% depending on service, including inflation

Investment Rate of Return 7.25%

Retirement Age Experience-based table of rates that are specific to the type of

eligibility condition

Mortality RP-2000 Combined Healthy Participant Mortality Table (for pre-

retirement mortality) and the RP-2000 Mortality Table for Annuitants

(for post-retirement mortality), with mortality improvements

projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates currently in use for Regular Class members of the Florida Retirement System

(FRS), as mandated by Florida Statutes Chapter 112.63.

Other Information:

Notes See Discussion of Valuation Results in Section A of this report.



# SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

FY Ending September 30,	De	ctuarially etermined ntribution	Actual atribution*	_	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	\$	366,204	\$ 366,204	* \$	-	\$ 2,388,786	15.33%
2015		344,236	344,236		-	2,284,123	15.07%
2016		317,957	317,957		-	2,757,140	11.53%
2017		338,551	338,551		-	3,124,004	10.84%
2018**		417,970	417,970		-	3,305,740	12.64%

<sup>\*</sup> A receivable City contribution for the fiscal year ending September 30, 2014 of \$12,537, deposited after September 30, 2014, is reflected in the 2014 fiscal year actual contribution figure and excluded from the 2015 fiscal year.



<sup>\*\*</sup> These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

# NOTES TO SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

Valuation Date: October 1, 2016

Notes Actuarially determined contributions are calculated as of October 1,

which is one year prior to the expected contribution date and the beginning of the fiscal year in which the contribution is due.

# Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method Entry Age Normal
Amortization Method Level Dollar, Closed

Remaining Amortization Period 20 years (single equivalent period)

Asset Valuation Method 5-year smoothed market

Inflation 3.0%

Salary Increases 4.0% to 8.0% depending on service, including inflation

Investment Rate of Return 7.5%

Retirement Age Experience-based table of rates that are specific to the type of

eligibility condition

Mortality RP-2000 Combined Healthy Participant Mortality Table (for pre-

retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality), with mortality

improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates currently in use for Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes

Chapter 112.63.

Other Information:

Notes See Discussion of Valuation Results in the October 1, 2016 Actuarial

Valuation Report (dated May 3, 2017).



# SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 7.25% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.25%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these 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 (7.25%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.25%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

	Cur	rent Single Discount *	¢	
1% Decrease		Rate Assumption	1% Increase	
 6.25%		7.25%		8.25%
\$ 3,042,224	\$	957,918	\$	(793,245)

<sup>\*</sup> These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



# **SECTION D**

**M**ISCELLANEOUS INFORMATION

	RECONCILIATION OF MEMBERSH	IIP DATA	
		From 10/1/16 To 10/1/17	From 10/1/15 To 10/1/16
A.	Active Members		
1.	Number Included in Last Valuation	70	52
2.	New Members Included in Current Valuation	15	28
3.	Non-Vested Employment Terminations	(9)	(5)
4.	Vested Employment Terminations	(3)	(1)
5.	DROP Participation	0	(1)
6.	Service Retirements	0	(2)
7.	Disability Retirements	0	(1)
8.	Deaths	0	0
9.	Transfer from General Employees	0	0
10.	Number Included in This Valuation	73	70
В.	Terminated Vested Members	1	
1.	Number Included in Last Valuation	6	8
2.	Additions from Active Members	3	1
3.	Lump Sum Payments/Refund of Contributions	(2)	(1)
4.	Payments Commenced	0	(2)
5.	Deaths	0	0
6.	Other	0	0
7.	Number Included in This Valuation	7	6
C.	DROP Plan Members		
1.	Number Included in Last Valuation	11	15
2.	Additions from Active Members	0	1
3.	Retirements	(4)	(6)
4.	Deaths Resulting in No Further Payments	0	0
5.	Other - Data Adjustment	0	1
6.	Number Included in This Valuation	7	11
D.	Service Retirees, Disability Retirees and Benefici	aries	
1.	Number Included in Last Valuation	80	70
2.	Additions from Active Members	0	3
3.	Additions from Terminated Vested Members	0	2
4.	Additions from DROP Plan	4	6
5.	Deaths Resulting in No Further Payments	(3)	0
6.	Deaths Resulting in New Survivor Benefits	0	0
7.	End of Certain Period - No Further Payments	0	0
8.	Other - Data Adjustment	1_	(1)_
9.	Number Included in This Valuation	82	80



				Δ	ctive Mer	nbers as	of Octobe	r 1, 2 <mark>017</mark>					
							Valuation						
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35+	Totals
20-24 NO.	4	4	2	0	0	0	0	0	0	0	0	0	10
TOT PAY		135,877	68,447	0	0	0	0	0	0		0	0	312,435
AVG PAY		33,969		0	0	0	0	0			0	0	31,244
25-29 NO.	6	5	0	0	1	0	0	0	0	0	0	0	12
TOT PAY	167,192	161,071	0	0	41,361	0	0	0	0	0	0	0	369,624
AVG PAY	27,865	32,214	0	0	41,361	0	0	0	0	0	0	0	30,802
30-34 NO.	2	4	0	0	1	2	1	0	0	0	0	0	10
TOT PAY		141,930	0	0		78,809	49,850	0	0		0	0	,
AVG PAY	27,865	35,482	0	0	75,669	39,404	49,850	0	0	0	0	0	40,199
35-39 NO.	1	1	1	0	0	1	0	1	0	0	0	0	5
TOT PAY	46,949		32,330	0	0	,	0	42,363	0		0	0	,
AVG PAY	46,949	36,373	32,330	0	0	38,918	0	42,363	0	0	0	0	39,387
40-44 NO.	0	0	2	1	0		0	0			0	0	5
TOT PAY	0	0	157,912	80,264		146,886	0	0			0	0	385,062
AVG PAY	0	0	78,956	80,264	0	73,443	0	0	0	0	0	0	77,012
45-49 NO.	1	1	1	0	0	0	2	1	1		0	0	8
TOT PAY	42,254		37,284	0	0	0	•			51,651	0	0	430,868
AVG PAY	42,254	36,373	37,284	0	0	0	64,608	40,716	93,373	51,651	0	0	53,859
50-54 NO.	0	0	1	0	0	0	4	1	0	0	1	0	7
TOT PAY	0	0	44,529	0	0	0	225,522	58,618	0	0	56,964	0	
AVG PAY	0	0	44,529	0	0	0	56,380	58,618	0	0	56,964	0	55,090
55-59 NO.	0	3	1	0	0	2	2	4	0	0	0	1	13
TOT PAY	0	143,672	33,322	0	0	65,837	73,380	209,981	0	0	0	51,604	577,796
AVG PAY	0	47,891	33,322	0	0	32,918	36,690	52,495	0	0	0	51,604	44,446
60-64 NO.	0	1	0	0	0	0	0	0	0	0	0	0	
TOT PAY	0	32,424	0	0	0	0	0	0	0	0	0	0	32,424
AVG PAY	0	32,424	0	0	0	0	0	0	0	0	0	0	32,424
65-99 NO.	1	0	0	0	1	0	0	0	0	0	0	0	2
TOT PAY	22,089	0	0	0	88,826	0	0	0	0	0	0	0	110,915
AVG PAY	22,089	0	0	0	88,826	0	0	0	0	0	0	0	55,458
TOT NO.	15	19	8	1	3	7	9	7	1	1	1	1	73
TOT AMT	442,326	687,720	373,824	80,264	205,856	330,450	477,969	351,678	93,373	51,651	56,964	51,604	3,203,679
AVG AMT	29,488	36,196	46,728	80,264	68,619	47,207	53,108	50,240	93,373	51,651	56,964	51,604	43,886



	Inactive Members as of October 1, 2017													
	Terminat	ed Vested	Disa	abled	Re	etired	Benef	iciaries	Total					
		Total		Total		Total		Total		Total				
		Annual		Annual		Annual		Annual		Annual				
Age	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits				
Under 20	-	-	-	-	-	-	-	-	-	-				
20 - 24	-	-	-	-	-	-	-	-	-	-				
25 - 29	-	-	-	-	-	-	-	-	-	-				
30 - 34	-	-	-	-	-	-	-	-	-	-				
35 - 39	1	9,360	-	-	-	-	-	-	1	9,360				
40 - 44	1	15,983	-	-	-	-	1	7,236	2	23,219				
45 - 49	-	-	-	-	-	-	-	-	-	-				
50 - 54	1	3,216	1	22,125	1	27,459	-	-	3	52,800				
55 - 59	4	38,083	-	-	8	188,267	-	-	12	226,350				
60 - 64	-	-	-	-	11	254,008	1	11,537	12	265,545				
65 - 69	-	-	-	-	12	133,818	-	-	12	133,818				
70 - 74	-	-	-	-	14	226,786	3	20,487	17	247,273				
75 - 79	-	-	-	-	10	129,284	1	2,021	11	131,305				
80 - 84	-	-	1	7,905	12	152,182	1	12,104	14	172,191				
85 - 89	-	-	-	-	3	42,413	3	19,232	6	61,645				
90 - 94	-	-	-	-	2	17,685	2	18,728	4	36,413				
95 - 99	-	-	-	-	2	33,811	-	-	2	33,811				
100 & Over	-	-	-	-	-	-	-	-	-	-				
Total	7	66,642	2	30,030	75	1,205,713	12	91,345	96	1,393,730				





**SUMMARY OF PLAN PROVISIONS** 

# **SUMMARY OF PLAN PROVISIONS**

#### A. Ordinances

The Plan was established under the Code of Ordinances for the City of Miami Springs, Florida, Chapter 35, Article I, and was most recently amended under Ordinance No. 1080-2015 passed and adopted on May 27, 2015. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

# **B.** Effective Date

January 1, 1960

#### C. Plan Year

October 1 through September 30

# D. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

### E. Eligibility Requirements

All employees, except police officers and firefighters, who work at least 1000 hours per year. Employees appointed to director positions (City Manager, Assistant City Manager, or Department Director) after May 27, 2015 have the option to join the Plan.

#### F. Credited Service

Service is measured as the total number years and fractional parts of years of service rendered to the City. No service is credited for any periods of employment for which the member received a refund of their contributions.

#### G. Compensation

Salary or wages paid for personal services rendered to the City, but not including allowances for food, clothing, shelter, or travel expense.

# H. Final Average Salary (FAS)

The average of the highest Compensation over any 5 years of Credited Service out of the last 10 years prior to termination or retirement. Compensation for FAS excludes overtime and lump sum payments at retirement for unused sick leave and vacation pay.



#### I. Normal Retirement

Eligibility: A member may retire on the first day of the month coincident with or next

following the earlier of:

(1) age 62 and 5 years of Credited Service, or

(2) when age plus Credited Service equals 75 years.

Benefit: 1.75% of FAS multiplied by each year of Credited Service prior to 10/1/89, plus

2.50% of FAS multiplied by each year of Credited Service after 10/1/89; former program A members receive credit at the rate of 1.00% for service prior to

10/1/89.

**Normal Form** 

of Benefit: Single life Annuity; other options are also available.

COLA: None

### J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon

attainment of age 55 and 10 years of Credited Service.

Benefit: The Normal Retirement Benefit is reduced by .25% for each month by which the

Early Retirement date precedes the Normal Retirement date.

Normal Form

of Benefit: Single life Annuity; other options are also available.

COLA: None

# K. Delayed Retirement

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

# L. Service Connected Disability

Eligibility: Any member who has 10 or more years of Credited Service and becomes totally

and permanently disabled and rendered incapacitated for duty in the employ of the City is immediately eligible for a disability benefit. The 10 year requirement is

waived if the member is receiving Worker's Compensation.

Benefit: The accrued Normal Retirement Benefit taking into account compensation earned

and service credited as of the date of disability payable immediately. If a member is receiving Worker's Compensation, the minimum benefit is 25% of salary; upon termination of Worker's Compensation, benefit is recomputed by allowing

additional service credit from date of retirement to age 60.



**Normal Form** 

of Benefit: Payable for life or until recovery from disability; other options are also available.

COLA: None

# M. Non-Service Connected Disability

Eligibility: Any member who has 10 or more years of Credited Service and becomes totally

and permanently disabled and rendered incapacitated for duty in the employ of the City is immediately eligible for a disability benefit. The 10 year requirement is

waived if the member is receiving Worker's Compensation.

Benefit: The accrued Normal Retirement Benefit taking into account compensation earned

and service credited as of the date of disability payable immediately. If a member is receiving Worker's Compensation, the minimum benefit is 25% of salary; upon termination of Worker's Compensation, benefit is recomputed by allowing

additional service credit from date of retirement to age 60.

Normal Form

of Benefit: Payable for life or until recovery from disability; other options are also available.

COLA: None

#### N. Death in the Line of Duty

Eligibility: Members with 10 or more years of Credited Service are eligible for survivor

benefits.

Benefit: The beneficiary will receive the member's accrued Normal Retirement Benefit

taking into account compensation earned and service credited as of the date of

death.

**Normal Form** 

of Benefit: Payable immediately as though the member had retired on the date of death and

elected the 100% Joint & Survivor option.

COLA: None

The beneficiary of a plan member who dies with less than 10 years of Credited Service will receive a refund of the member's accumulated contributions with interest.

### O. Other Pre-Retirement Death

Eligibility: Members with 10 or more years of Credited Service are eligible for survivor

benefits.

Benefit: The beneficiary will receive the member's accrued Normal Retirement Benefit

taking into account compensation earned and service credited as of the date of

death.



**Normal Form** 

of Benefit: Payable immediately as though the member had retired on the date of death and

elected the 100% Joint & Survivor option.

COLA: None

The beneficiary of a plan member who dies with less than 10 years of Credited Service will receive a refund of the member's accumulated contributions with interest.

#### P. Post-Retirement Death

Benefit determined by the form of benefit elected upon retirement.

#### Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a 10 Year Certain and Life Annuity and the 50% and 100% Joint and Survivor options.

#### R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion

of 5 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of

termination. Benefit begins on the member's Normal Retirement date determined as though the member had remained in full-time employment. Alternatively, a member may elect a refund of their own accumulated contributions with interest or, if the member had 10 years of Credited Service, a reduced Early Retirement

Benefit any time after age 55.

**Normal Form** 

of Benefit: Single life Annuity; other options are also available.

COLA: None

Members terminating employment with less than 5 years of Credited Service will receive a refund of their own accumulated contributions with interest.

## S. Refunds

Eligibility: All members terminating employment with less than 5 years of Credited Service

are eligible. Optionally, vested members (those with 5 or more years of Credited

Service) may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions with interest. Interest is credited at a rate

that is determined by the Board each year.



#### T. Member Contributions

5.0% of Compensation; when the total annual required contribution is greater than 15% of payroll, the amount over 15% is shared equally by the City and the members.

### **U. Employer Contributions**

Any additional amount determined by the actuary needed to fund the plan properly according to State laws. When the total annual required contribution is greater than 15% of payroll (the threshold of 15% of payroll is comprised on the City contribution of 10% of payroll and the member contribution rate of 5% of pay), the amount over 15% is shared equally by the City and the members.

#### V. Cost of Living Increases

Not Applicable

# W. 13<sup>th</sup> Check

Not Applicable

# X. Deferred Retirement Option Plan

Eligibility: Plan members are eligible for the DROP upon the attainment of the earlier of:

(1) age 62 and 5 years of Credited Service, or

(2) when age plus Credited Service equals 75 years.

Members must make a written election to participate in the DROP.

Benefit: The member's Credited Service and FAS are frozen upon entry into the DROP. The

monthly retirement benefit as described under Normal Retirement is calculated

based upon the frozen Credited Service and FAS.

Maximum

DROP Period: 60 months

Interest

Credited: The member's DROP account is credited or debited at an interest rate to be set

by the Board.

**Normal Form** 

of Benefit: The plan member may elect from 1 of the 2 following options:

(1) Lump Sum, or

(2) Any other form of payment selected by the participant, approved by the Board

and conforming to all applicable laws.

COLA: None



# Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a Miami Springs General Employees' Retirement System liability if continued beyond the availability of funding by the current funding source.

# Z. Changes from Previous Valuation

There were no changes in plan provisions since the previous valuation.

