

February 2, 2018

Ms. Patti McLauchlin
Administrator, City of Key West
Employee's Retirement Plan
City of Key West
1300 White Street
Key West, Florida 33040

Re: Retirement Plan for Employees of the City of Key West

Dear Patti:

As requested, we are pleased to enclose ten (10) copies of the October 1, 2016 Chapter 112.664 Compliance Report for the Retirement Plan for Employees of the City of Key West (Plan).

We will timely upload the required data to the State's online portal.

Please note we understand the following items must be posted on the Plan's website and must be posted on any website containing budget information relating to the City or actuarial or performance information relating to the Plan:

- this compliance report
- most recent financial statement
- most recent actuarial valuation report
- a link to the Division of Retirement Actuarial Summary Fact Sheet
   http://www.dms.myflorida.com/workforce\_operations/retirement/local\_retirement\_plans/local\_retirement\_section/actuarial\_summary\_fact\_sheets
- for the previous five years a side-by-side comparison of the Plan's assumed rate of return compared to the actual rate of return as well as the percentages of cash, equity, bond and alternative investments in the Plan portfolio
- the Plan's funded ratio as determined in the most recent actuarial valuation 97.2% on a market value of assets basis as of October 1, 2016 under the Entry Age Normal Actuarial Cost Method

We appreciate the opportunity to work with the Board on this important assignment.

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

Sincerest regards,

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

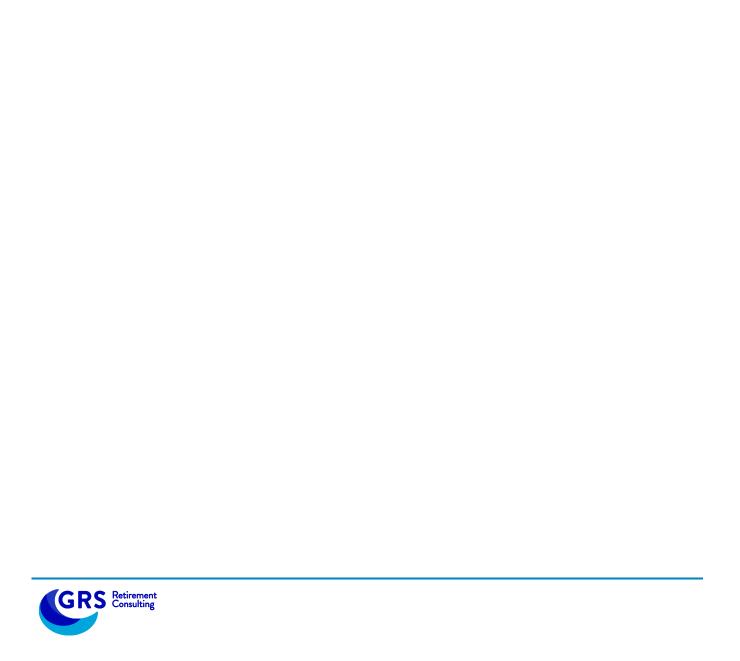
Enclosures

# Retirement Plan for Employee of the City of Key West

CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the October 1, 2016 Funding Actuarial Valuation Report and the Plan's Financial Reporting for the Year Ended September 30, 2016







February 2, 2018

General Employees' Retirement Committee c/o Ms. Patti McLauchlin Administrator – General Employees' Pension Plan City of Key West 1300 White Street Key West, Florida 33040

Re: October 1, 2016 Chapter 112.664 Compliance Report

**Dear Committee Members:** 

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Retirement Committee (Committee) of the Retirement Plan for Employees of the City of Key West (Plan) to prepare a disclosure report to satisfy the requirements set forth in Chapter 112.664, F.S. and as further required pursuant to Chapter 60T-1.0035, F.A.C.

This report was prepared at the request of the Committee and is intended for use by the Committee and those designated or approved by the Committee. This report may be provided to parties other than the Committee only in its entirety and only with the permission of the Committee.

The purpose of the report is to provide the required information specified in Chapter 112.664, F.S. and to supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report was based upon information furnished by the City and the Committee concerning Plan benefits, Plan provisions and Plan members as used in the corresponding Actuarial Valuation Reports for the Valuation Dates indicated. Financial information was provided by the City and Committee as of September 30, 2016. We reviewed the information provided for internal and year-to-year consistency, but did not audit the data. The Plan is responsible for the accuracy of the data.

Retirement Committee February 2, 2018 Page Two

Except where specific assumptions are required by Chapter 112.664, F.S, this report was prepared using actuarial assumptions adopted by the Committee as described in Section C. The Committee's assumptions are based on the results of an actuarial experience study for the period October 1, 2007 – September 30, 2012 and represent an estimate of future Plan experience. The mortality assumptions are prescribed by statute.

The investment return assumption of 2% higher than the investment return assumption utilized in the Actuarial Valuation Report does neither represent an estimate of future Plan experience nor observation of the estimates inherent in market data. This assumption is provided as a counterpart to the Chapter 112.664, F.S. requirement to utilize an investment return assumption of 2% lower than the investment return assumption utilized in the Actuarial Valuation Report. The inclusion of the additional 2% higher assumption shows a more complete assessment of the range of potential results as opposed to the *one-sided* range required by statute.

If all actuarial assumptions are met and if all current and future minimum required contributions are paid Plan assets will be sufficient to pay all Plan benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. Plan minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act with normal cost determined as a level percent of covered payroll and a level percent of pay amortization payment using an initial amortization period of 20 years.

The Plan's funded ratio as of October 1, 2016 is 97.2% defined as the ratio of the market value of Plan assets to the actuarial accrued liability under the Entry Age Normal Actuarial Cost Method.

The Plan's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of Plan assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the Plan sponsor.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement plans. To the best of our knowledge the information contained in this report is accurate and presents the actuarial position of the Plan as of the valuation date as required by statute. 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.



Retirement Committee February 2, 2018 Page Three

With respect to the reporting standards for defined benefit retirement plans contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

To the best of our knowledge and belief, the results are complete and accurate, and in our opinion, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

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

Enrolled Actuary No. 17-02802 Senior Consultant & Actuary Jennifer M. Borregard, M.A.A.A Enrolled Actuary No. 17-07624 Consultant & Actuary

Jennifee Borregard

Date: February 2, 2018



# **TABLE OF CONTENTS**

<u>Section</u>	<u>Title</u>	<u>Page</u>
Α	Chapter 112.664, F.S. Results	
	<ol> <li>Net Pension Liability</li> <li>Using financial reporting assumptions per GASB Statement No. 67 and No. 68</li> <li>Using assumptions required under Section 112.664(1)(a), F.S.</li> <li>Using assumptions required under Section 112.664(1)(b), F.S.</li> <li>Using assumptions required under Section 112.664(1)(a), F.S. plus 2%</li> </ol>	1 2 3 4
	<ol> <li>Asset and Benefit Payments Projection</li> <li>Using financial reporting assumptions per GASB Statement No. 67 and No. 68 using assumptions required under Section 112.664(1)(a), F.S.</li> <li>Using assumptions required under Section 112.664(1)(b), F.S.</li> <li>Using assumptions required under Section 112.664(1)(a), F.S. plus 2%</li> </ol>	and 5 6 7
	Actuarially Determined Contribution	8
	Unfunded Actuarial Accrued Liabilities Bases and Amortization payments	9
В	Summary of Plan Provisions	10
С	Actuarial Assumptions and Cost Methods Used for Funding	14
D	Glossary	18

# **SECTION A**

**CHAPTER 112.664, F.S. RESULTS** 

# **Net Pension Liability**

# Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68

	Measurement Date	Septe	mber 30, 2016
A.	Total Pension Liability (TPL)		
	Service Cost	\$	1,269,240
	Interest		3,499,027
	Benefit Changes		0
	Difference Between Actual and Expected Experience		1,253,381
	Assumption Changes		(97,983)
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Other		0
	Net Change in Total Pension Liability	\$	3,188,641
	Total Pension Liability (TPL) - (beginning of year)		45,600,168
	Total Pension Liability (TPL) - (end of year)	\$	48,788,809
В.	Plan Fiduciary Net Position		
υ.	Contributions - City	\$	730,895
	Contributions - Member	Ψ	769,999
	Net Investment Income		3,502,440
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Administrative Expenses		(202,210)
	Other		0
	Net Change in Plan Fiduciary Net Position	\$	2,066,100
	Plan Fiduciary Net Position - (beginning of year)	·	47,155,911
	Plan Fiduciary Net Position - (end of year)	\$	49,222,011
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	\$	(433,202)
	Valuation Date	0	ctober 1, 2015

### **Certain Key Assumptions**

Investment Return Assumption

7.5%

#### Mortality Table:

For healthy male participants, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.



# Net Pension Liability Using Assumptions Required Under 112.664(1)(a), F.S.

	Measurement Date	Sept	ember 30, 2016
A.	Total Pension Liability (TPL)		
	Service Cost	\$	1,279,945
	Interest		3,443,383
	Benefit Changes		0
	Difference Between Actual and Expected Experience		1,221,949
	Assumption Changes		0
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Other		0
	Net Change in Total Pension Liability	\$	3,210,253
	Total Pension Liability (TPL) - (beginning of year)		44,780,989
	Total Pension Liability (TPL) - (end of year)	\$	47,991,242
В.	Plan Fiduciary Net Position		
	Contributions - City	\$	730,895
	Contributions - Member	·	769,999
	Net Investment Income		3,502,440
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Administrative Expenses		(202,210)
	Other		0
	Net Change in Plan Fiduciary Net Position	\$	2,066,100
	Plan Fiduciary Net Position - (beginning of year)		47,155,911
	Plan Fiduciary Net Position - (end of year)	\$	49,222,011
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	\$	(1,230,769)
	Valuation Date		October 1, 2015

### **Certain Key Assumptions**

Investment Return Assumption 7.5%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.



# Net Pension Liability Using Assumptions Required Under 112.664(1)(b), F.S.

	Measurement Date	Sep	tember 30, 2016
A.	Total Pension Liability (TPL)		
	Service Cost	\$	1,906,134
	Interest		3,178,001
	Benefit Changes		0
	Difference Between Actual and Expected Experience		1,684,388
	Assumption Changes		0
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Other		0
	Net Change in Total Pension Liability	\$	4,033,499
	Total Pension Liability (TPL) - (beginning of year)		55,575,285
	Total Pension Liability (TPL) - (end of year)	\$	59,608,784
В.	Plan Fiduciary Net Position		
	Contributions - City	\$	730,895
	Contributions - Member		769,999
	Net Investment Income		3,502,440
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Administrative Expenses		(202,210)
	Other		0
	Net Change in Plan Fiduciary Net Position	\$	2,066,100
	Plan Fiduciary Net Position - (beginning of year)		47,155,911
	Plan Fiduciary Net Position - (end of year)	\$	49,222,011
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	\$	10,386,773
	Valuation Date		October 1, 2015

### **Certain Key Assumptions**

Investment Return Assumption 5.5%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.



### **Net Pension Liability**

# Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

	Measurement Date	Septer	nber 30, 2016
A.	Total Pension Liability (TPL)		
	Service Cost	\$	903,748
	Interest		3,570,580
	Benefit Changes		0
	Difference Between Actual and Expected Experience		880,673
	Assumption Changes		0
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Other		0
	Net Change in Total Pension Liability	\$	2,619,977
	Total Pension Liability (TPL) - (beginning of year)		37,158,861
	Total Pension Liability (TPL) - (end of year)	\$	39,778,838
В.	Plan Fiduciary Net Position		
٥.	Contributions - City	\$	730,895
	Contributions - Member	*	769,999
	Net Investment Income		3,502,440
	Benefit Payments		(2,735,024)
	Contribution Refunds		0
	Administrative Expenses		(202,210)
	Other		0
	Net Change in Plan Fiduciary Net Position	\$	2,066,100
	Plan Fiduciary Net Position - (beginning of year)		47,155,911
	Plan Fiduciary Net Position - (end of year)	\$	49,222,011
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	\$	(9,443,173)
	Valuation Date	0	ctober 1, 2015

### **Certain Key Assumptions**

Investment Return Assumption

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.



9.5%

# Asset and Benefit Payment Projection Not Reflecting Any Future Contributions Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68

	Market Value of Assets	Expected Investment	Projected Benefit	Market Value of Assets
FYE	(BOY)	Return	Payments	(EOY)
2017	\$ 48,521,137	\$ 3,526,020	\$ 2,814,226	\$ 49,232,931
2018	49,232,931	3,569,307	3,065,557	49,736,681
2019	49,736,681	3,601,951	3,193,442	50,145,190
2020	50,145,190	3,629,108	3,280,083	50,494,215
2021	50,494,215	3,651,998	3,361,907	50,784,306
2022	50,784,306	3,669,624	3,464,702	50,989,228
2023	50,989,228	3,681,961	3,540,181	51,131,008
2024	51,131,008	3,689,963	3,605,685	51,215,286
2025	51,215,286	3,694,464	3,650,980	51,258,770
2026	51,258,770	3,695,997	3,694,003	51,260,764
2027	51,260,764	3,695,746	3,703,973	51,252,537
2028	51,252,537	3,694,825	3,711,529	51,235,833
2029	51,235,833	3,693,360	3,716,811	51,212,382
2030	51,212,382	3,691,526	3,718,694	51,185,214
2031	51,185,214	3,689,912	3,708,143	51,166,983
2032	51,166,983	3,690,583	3,657,417	51,200,149
2033	51,200,149	3,694,816	3,613,974	51,280,991
2034	51,280,991	3,702,847	3,564,979	51,418,859
2035	51,418,859	3,715,913	3,497,128	51,637,644
2036	51,637,644	3,735,623	3,414,961	51,958,306
2037	51,958,306	3,763,123	3,329,098	52,392,331
2038	52,392,331	3,799,511	3,233,600	52,958,242
2039	52,958,242	3,845,719	3,139,896	53,664,065
2040	53,664,065	3,902,731	3,038,475	54,528,321
2041	54,528,321	3,971,362	2,943,583	55,556,100
2042	55,556,100	4,052,108	2,852,430	56,755,778
2043	56,755,778	4,145,869	2,758,214	58,143,433
2044	58,143,433	4,254,281	2,650,240	59,747,474
2045	59,747,474	4,378,621	2,549,748	61,576,347
2046	61,576,347	4,519,530	2,456,586	63,639,291
2047	63,639,291	4,678,272	2,356,487	65,961,076

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City or Members:

99.99

#### **Certain Key Assumptions**

Investment return assumption

7.5%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Plan assets does not include future contributions from the City or Members. For this reason, this projection should not be viewed as representative of the amount of time the Plan can sustain benefit payments. Under the Government Accounting Standards Board standards which include City and Member contributions, the Plan is expected to be able to pay all future benefit payments.



# Asset and Benefit Payment Projection Not Reflecting Any Future Contributions Using Assumptions Required Under 112.664(1)(b), F.S.

	Market Value of Assets	Expected Investment	Projected Benefit	Market Value of Assets
FYE	(BOY)	Return	Payments	(EOY)
2017	\$ 48,521,137	\$ 2,585,508	\$ 2,814,226	\$ 48,292,419
2018	48,292,419	2,565,502	3,065,557	47,792,364
2019	47,792,364	2,534,220	3,193,442	47,133,142
2020	47,133,142	2,495,403	3,280,083	46,348,462
2021	46,348,462	2,449,828	3,361,907	45,436,383
2022	45,436,383	2,396,626	3,464,702	44,368,307
2023	44,368,307	2,335,652	3,540,181	43,163,778
2024	43,163,778	2,267,467	3,605,685	41,825,560
2025	41,825,560	2,192,527	3,650,980	40,367,106
2026	40,367,106	2,111,040	3,694,003	38,784,144
2027	38,784,144	2,023,683	3,703,973	37,103,854
2028	37,103,854	1,931,044	3,711,529	35,323,368
2029	35,323,368	1,832,961	3,716,811	33,439,518
2030	33,439,518	1,729,294	3,718,694	31,450,118
2031	31,450,118	1,620,188	3,708,143	29,362,163
2032	29,362,163	1,506,850	3,657,417	27,211,596
2033	27,211,596	1,389,852	3,613,974	24,987,474
2034	24,987,474	1,268,973	3,564,979	22,691,468
2035	22,691,468	1,144,698	3,497,128	20,339,038
2036	20,339,038	1,017,742	3,414,961	17,941,819
2037	17,941,819	888,432	3,329,098	15,501,153
2038	15,501,153	757,017	3,233,600	13,024,570
2039	13,024,570	623,574	3,139,896	10,508,247
2040	10,508,247	488,173	3,038,475	7,957,945
2041	7,957,945	350,710	2,943,583	5,365,072
2042	5,365,072	210,795	2,852,430	2,723,438
2043	2,723,438	68,289	2,758,214	33,513
2044	33,513	-	2,650,240	-
2045	-	-	2,549,748	-
2046	-	-	2,456,586	-
2047	-	-	2,356,487	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City or Members:

27.00

#### **Certain Key Assumptions**

Investment return assumption

5.5%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Plan assets does not include future contributions from the City or Members. For this reason, this projection should not be viewed as representative of the amount of time the Plan can sustain benefit payments. Under the Government Accounting Standards Board standards which include City and Member contributions, the Plan is expected to be able to pay all future benefit payments.



# Asset and Benefit Payment Projection Not Reflecting Any Future Contributions

#### Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

	Market Value of Assets	Expected Investment	Projected Benefit	Market Value of Assets
FYE	(BOY)	Return	Payments	(EOY)
2017	\$ 48,521,137	\$ 4,466,700	\$ 2,814,226	\$ 50,173,611
2018	50,173,611	4,610,932	3,065,557	51,718,986
2019	51,718,986	4,751,253	3,193,442	53,276,796
2020	53,276,796	4,894,848	3,280,083	54,891,561
2021	54,891,561	5,044,099	3,361,907	56,573,753
2022	56,573,753	5,198,690	3,464,702	58,307,741
2023	58,307,741	5,359,589	3,540,181	60,127,149
2024	60,127,149	5,529,109	3,605,685	62,050,573
2025	62,050,573	5,709,536	3,650,980	64,109,129
2026	64,109,129	5,902,915	3,694,003	66,318,041
2027	66,318,041	6,112,256	3,703,973	68,726,324
2028	68,726,324	6,340,659	3,711,529	71,355,455
2029	71,355,455	6,590,159	3,716,811	74,228,803
2030	74,228,803	6,863,031	3,718,694	77,373,140
2031	77,373,140	7,162,279	3,708,143	80,827,276
2032	80,827,276	7,492,996	3,657,417	84,662,854
2033	84,662,854	7,859,580	3,613,974	88,908,461
2034	88,908,461	8,265,399	3,564,979	93,608,881
2035	93,608,881	8,715,382	3,497,128	98,827,135
2036	98,827,135	9,215,286	3,414,961	104,627,460
2037	104,627,460	9,770,674	3,329,098	111,069,035
2038	111,069,035	10,387,469	3,233,600	118,222,905
2039	118,222,905	11,071,842	3,139,896	126,154,851
2040	126,154,851	11,830,524	3,038,475	134,946,899
2041	134,946,899	12,670,583	2,943,583	144,673,900
2042	144,673,900	13,599,274	2,852,430	155,420,744
2043	155,420,744	14,625,005	2,758,214	167,287,535
2044	167,287,535	15,757,830	2,650,240	180,395,125
2045	180,395,125	17,008,150	2,549,748	194,853,527
2046	194,853,527	18,386,426	2,456,586	210,783,367
2047	210,783,367	19,904,840	2,356,487	228,331,720

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City or Members:

99.99

#### **Certain Key Assumptions**

Investment return assumption

9.5%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Plan assets does not include future contributions from the City or Members. For this reason, this projection should not be viewed as representative of the amount of time the Plan can sustain benefit payments. Under the Government Accounting Standards Board standards which include City and Member contributions, the Plan is expected to be able to pay all future benefit payments.



ACTUARIALLY DETERMINED CONTRIBUTION				
	Valuation Assumptions and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S.  Assumptions	112.664(1)(a), F.S. Assumptions Plus 2% on Investment Return Assumption	
A. Valuation Date	October 1, 2016	October 1, 2016	October 1, 2016	
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	September 30, 2018	September 30, 2018	September 30, 2018	
C. Annual payroll of Active Employees	\$ 12,688,183	\$ 12,688,183	\$ 12,688,183	
<ul> <li>D. Total Minimum Funding Requirement</li> <li>1. Total Normal Cost</li> <li>2. Amortization of Unfunded Actuarial Accrued Liability</li> <li>3. Interest Adjustment</li> <li>4. Total Minimum Funding Requirement</li> <li>(1. + 2. + 3., not less than 1.)</li> </ul>	\$ 1,630,153 42,870 60,471 \$ 1,733,494	\$ 2,335,803 939,407 87,658 \$ 3,362,868	\$ 1,209,906 (790,794) 19,005 \$ 1,209,906	
E. Expected Payroll of Active Employees for Following Plan Year (\$ / % of pay) (C x 1.015)	\$ 12,878,506 101.50%	\$ 12,878,506 101.50%	\$ 12,878,506 101.50%	
<ul><li>F. Expected Contribution Sources (\$ / % of pay)</li><li>1. City</li><li>2. Member</li><li>3. Total</li></ul>	\$ 991,645 7.70% 772,710 6.00% \$ 1,764,355 13.70%	\$ 2,640,094 20.50%	\$ 450,748 3.50%	



#### **Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments**

						Αn	nortization Paym	ent		<u>-</u>
				١	Valuation and					Remaining
		Cur	rent Unfunded	112	2.664(1)(a), F.S.	11	L2.664(1)(b), F.S.	13	12.664(1)(a), F.S.	Funding
	<u>Amortization Base</u>		<u>Liabilities</u>		<u>Assumptions</u>		<u>Assumptions</u>	Ass	umptions Plus 2%	<u>Period</u>
10/01/2016	Method Change - Initial Unfunded	\$	480,867	\$	39,300	\$	33,864	\$	45,000	20 years
10/01/2016	Assumption Change		43,681		3,570		3,076		4,088	20 years
10/01/2016	Assumption Change - 112.664(1)(b), F.S. Assumptions		12,815,152		N/A		902,467		N/A	20 years
10/01/2016	Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%		(8,974,841)		N/A		N/A		(839,882)	20 years



# **SECTION B**

SUMMARY OF PLAN PROVISIONS

### A. Effective Date:

January 1, 1973, as amended through Ordinance 09-04.

### B. Eligibility Requirements:

Full-time employee, other than police officers and firefighters.

### C. <u>Credited Service:</u>

Service in completed calendar months from date of employment to the earlier of date of retirement or termination.

### D. Earnable Compensation:

Base salary paid including overtime pay *pick-up* contributions, but excluding bonuses, expense allowances, unused accumulated leave time, etc.

# E. <u>Final Monthly Compensation (FMC)</u>:

Average monthly rate of earnable compensation during the best thirty-six (36) consecutive months out of the last one hundred twenty (120) months preceding date of retirement (or termination).

#### F. Employee Contributions:

6% of basic annual compensation.

#### G. Normal Retirement:

- (1) <u>Eligibility:</u> The earlier of attainment of age 60 and completion of 10 years of credited service or completion of 20 years of credited service, irrespective of age. Employees participating in the plan prior to March 1, 1993 may retire fully vested at age 60 with 5 years of credited service. Employees hired on or after March 1, 1993 may retire at age 60 with 5 years of credited service but less than 10 years of credited service with reduced benefits.
- (2) <u>Benefit:</u> 2.5% times FMC times credited service. 1.25% times FMC times credited service for employees hired on or after March 1, 1993 with less than 10 years of credited service.



### H. Early Retirement:

- (1) Eligibility: Attainment of age 55 and completion of 10 years credited service.
- (2) <u>Benefit</u>: Benefit accrued to date of retirement, reduced by 1/15<sup>th</sup> for each year prior to normal retirement to reflect commencement of benefit at an earlier age.

#### I. Deferred Retirement:

- (1) Eligibility: Continued employment beyond normal retirement date.
- (2) <u>Benefit</u>: Benefit accrued at deferred retirement date based on credited service and FMC at deferred retirement date.

### J. Disability Retirement:

- (1) <u>Eligibility:</u> Total and permanent qualifying disability. If non-service incurred, requires completion of ten (10) years of credited service.
- (2) Benefit: Benefit (payable for ten (10) years certain and life thereafter or prior recovery)

#### <u>Incurred in Line-of-Duty:</u> Greatest of (a), (b) or (c), where

- (a) is 42% of FMC as of date of disability,
- (b) is the benefit supported by the present value of accrued benefit as of date of disability deferred to normal retirement date and
- (c) is the benefit supported by eighteen (18) times FMC.

  Benefit under (c) shall not exceed 60% of anticipated retirement benefit.

#### Not Incurred in Line-of-Duty: Greater of (a) or (b), where

- (a) is the benefit supported by the present value of accrued benefit as of date of disability deferred to normal retirement date and
- (b) is the benefit supported by eighteen (18) times FMC.



#### K. Death Benefit:

Benefit to beneficiary (payable for ten (10) years certain and life thereafter) which can be supported by the greater of A or B, where A is the single-sum value of the accrued benefit at date of death deferred to normal retirement date and B is the lesser of (i) and (ii), where (i) is 18 times FMC at date of death and (ii) is 100 times the anticipated monthly normal retirement benefit.

### L. <u>Vested Benefit Upon Termination:</u>

#### (1) Eligibility:

Vesting schedule with no vesting until completion of 5 years of credited service (50%) increasing by 10% per year until 100% vesting upon completion of 10 years of credited service.

### (2) Benefit at payable at Normal Retirement Date:

Benefit equal to accrued benefit based upon credited service and FMC at date of termination times vested percentage.

### M. Cash Termination Benefit:

- (1) Accumulated employee contributions without interest for non-vested employees.
- (2) Accumulated employee contributions without interest in lieu of deferred vested benefit for vested employees.

## N. Normal Form of Retirement Income:

Monthly life annuity with guaranteed return of employee contributions.



# O. <u>Deferred Retirement Option Plan (DROP):</u>

- (1) Eligibility: Upon meeting the eligibility for normal or early retirement.
- (2) Participation in the DROP must be exercised within the first thirty (30) years of employment; provided, however, that participation in the DROP, when combined with participation in the retirement plan as an active member may not exceed thirty (30) years. The maximum period of participation in the DROP is five (5) years.
- (3) An employee's account in the DROP program shall be credited with interest based upon the actual earnings of the retirement fund.
- (4) No payment may be made from the DROP until the employee actually separates from service with the City.

### P. Cost of Living Adjustment (COLA):

Effective January 1, 2006, members receiving benefits received a 2.0% ad hoc COLA.

### Q. Changes From Previous Valuation:

None.



# **SECTION C**

ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING

# Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation (as of October 1, 2016)

### A. Mortality

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

	Pre-retirement		Post-ret	tirement
Sample	Futur	Future Life		re Life
Ages	Expectancy (Years)		Expectan	cy (Years)
(2016)	Male	Female	Male	Female
55	30.30	33.37	29.88	33.15
60	25.37	28.35	25.21	28.25
62	23.47	26.40	23.37	26.33
	Pre-reti	irement	Post-ret	tirement
Sample		rement e Life		tirement re Life
Sample Ages		e Life	Futui	
•	Futur	e Life	Futui	re Life
Ages	Futur Expectan	re Life cy (Years)	Futur Expectan	re Life cy (Years)
Ages (2036)	Futur Expectan Male	re Life cy (Years) Female	Futui Expectan Male	re Life cy (Years) Female



# <u>Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation</u> (as of October 1, 2016)

#### B. Investment Return

7.5%, net of investment expenses, compounded annually - includes inflation of 2.75%.

# C. Allowances for Expenses or Contingencies

Previous year's actual administrative expenses added to normal cost.

# D. Employee Withdrawal Rates

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

<u>Service</u>	Withdrawal Rates
0-1	22%
1-2	22%
2-3	16%
3-4	16%
4-5	10%
5-6	10%
6-7	9%
7-8	9%
8-9	8%
9-10	8%
10+	4%

# E. <u>Disability Rates</u>

Class (01) Inter-Company disability rates were used with separate rates for males and females. 50% of all disablements are assumed to be service related.

# F. Marital Assumptions

100% of all active participants are assumed to be married.

Females are assumed to be three years younger than their male spouses.



# Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation (as of October 1, 2016)

### G. Salary Increase Factors

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

<u>Service</u>	Salary Increase
0-1	6.00%
1-2	6.00%
2-3	5.00%
3-4	5.00%
4-5	5.00%
5-6	4.75%
6-7	4.75%
7-8	4.50%
8-9	4.25%
9-10	4.00%
10+	3.75%

### H. Assumed Retirement Age

Rates of early retirement were used in accordance with the following table.

<u>Age</u>	Retirement Rate
55	15%
56 - 59	5%

Rates of normal retirement were used in accordance with the following table.

<u>Age</u>	Retirement Rate
Less than 55	15%
55 - 59	40%
60 - 61	25%
62 - 64	35%
65 - 74	50%
75 & older	100%

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

### I. Payroll Growth Assumption

Payroll is assumed to increase at a rate equal to the historical 10-year average (1.5% as of October 1, 2016) - not less than 0.0%.



# Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation (as of October 1, 2016)

#### J. Valuation of Assets

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The smoothed actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of plan assets and whose upper limit is 120% of the fair market value of plan assets.

#### K. Actuarial Cost Methods

#### Normal Retirement, Termination, Death and Disability Benefits: Entry Age Normal

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

#### L. Changes from Previous Valuation

#### Actuarial Cost Method was:

#### Normal Retirement, Termination, Death and Disability Benefits: Aggregate

Under this method the excess of the Actuarial Present Value of Projected Benefits of the group included in the valuation, over the sum of the Smoothed Actuarial Value of Assets is allocated as a level percentage of earnings of the group between the valuation date and the assumed retirement age. This allocation is performed for the group as a whole, not as a sum of individual allocations. The portion of this Actuarial Present Value allocated to a specific year is called the Normal Cost. Under this method, actuarial gains (losses) reduce (increase) future Normal Costs.

#### Mortality was:

For healthy male participants, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.



# **SECTION D**

**G**LOSSARY

#### **GLOSSARY**

**Actuarial Accrued Liability** 

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

**Actuarial Assumptions** 

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

**Actuarial Cost Method** 

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

**Actuarial Equivalent** 

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

**Actuarial Present Value** 

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

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

**Actuarial Valuation** 

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

**Actuarial Value of Assets** 

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



#### **Amortization Method**

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

#### **Amortization Payment**

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

#### **Amortization Period**

The period used in calculating the Amortization Payment.

# Annual Required Contribution

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

#### **Closed Amortization Period**

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

#### **Employer Normal Cost**

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

# Equivalent Single Amortization Period

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

#### Experience Gain/Loss

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

#### **Funded Ratio**

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



**GASB** Governmental Accounting Standards Board.

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

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

Open Amortization Period An open amortization period is one which is used to determine the

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

covered payroll.

**Unfunded Actuarial Accrued** 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.