CITY OF BOCA RATON EXECUTIVE EMPLOYEES' RETIREMENT PLAN

2015 ACTUARIAL VALUATION

MARCH 2016

ACTUARIAL VALUATION AS OF OCTOBER 1, 2015 FOR THE PLAN YEAR BEGINNING OCTOBER 1, 2016 TO DETERMINE CONTRIBUTIONS TO BE PAID IN THE FISCAL YEAR ENDING SEPTEMBER 30, 2017



Actuarial Concepts

Management Advisors

Benefits Specialists

March 28, 2016

George S. Brown Chairman, EERP Board of Trustees City of Boca Raton EERP 201 West Palmetto Park Road Boca Raton, Florida 33432-3795

Dear Mr. Brown:

This report presents the results of the 2015 actuarial valuation of the City of Boca Raton Executive Employees' Retirement Plan. Actuarial Concepts was retained by the City to perform the actuarial valuation and prepare this report. This actuarial valuation 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 and, in our opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the Plan and/or paid from the Plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends that require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

The use of the valuation results for financial or administrative purposes, other than those outlined in the report, is not recommended without an advance review by Actuarial Concepts of the appropriateness of such application.

Members of our staff are available to discuss this report and related issues.

Very truly yours,

ACTUARIAL CONCEPTS

By: _____ Michael J. Tierney

ASA, MAAA, FCA, EA #14-1337

cc: Linda C. Davidson

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SECTION 1 KEY VALUATION RESULTS SUMMARY

The 2015 valuation of the City of Boca Raton Executive Employees' Retirement Plan ("Plan") presents a statement of the estimated financial position of the Plan as of October 1, 2015. Information in the report provides bases for determining contribution requirements and current funded status.

Key Results Synopsis

The major conclusions of the report are:

- The total City contribution for the 2015-2016 plan year is \$1,543,472.
- The total City contribution for the 2016-2017 plan year is \$1,585,811 if paid monthly. If paid as of October 1, 2016, the City contribution would be \$1,525,219.
- The Plan incurred actuarial gains of approximately \$73,000, due mainly to investment returns (actuarial value) in excess of that assumed.
- A new mortality table is proscribed by the State starting with the October 1, 2016 valuation. It is expected to increase liabilities for retirees as well as the values of future pensions for current active members.
- The Plan is 81% funded on an accrued benefit liability basis per State required disclosures (Chapter 112.63).
- The Plan is 75% funded on a projected liability measurement basis.

Change since Last Valuation

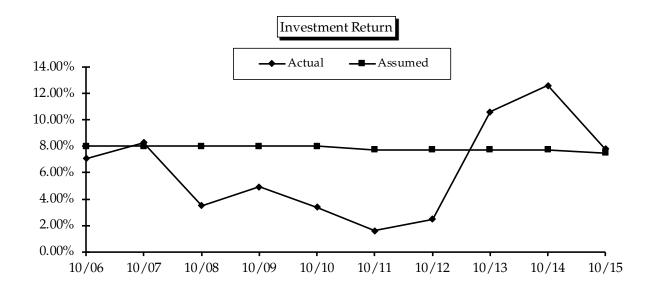
There have been no changes to Plan provisions or the actuarial cost method since the last valuation. The assumed morality rates have been updated to the valuation year.

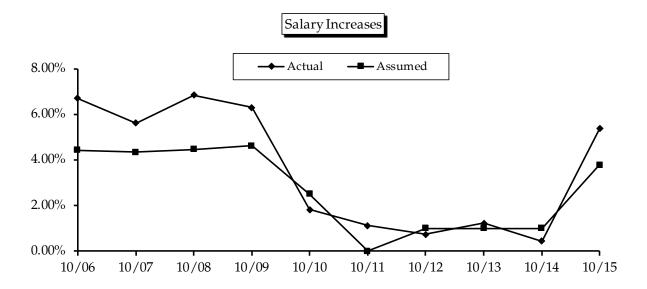
A summary of current Plan provisions is included in Appendix A. Actuarial assumptions and cost method are summarized in Appendix B, along with explanations of other valuation procedures.



Plan Experience

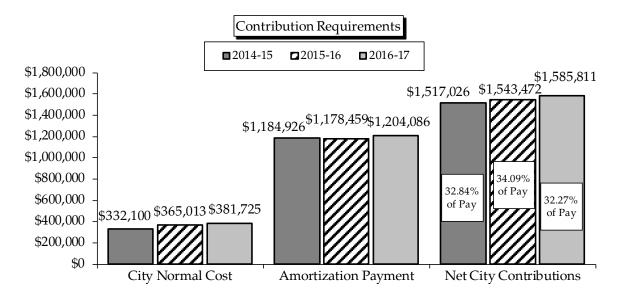
For the 12 months ended September 30, 2015, the actual experience under the Plan, in aggregate, was more favorable than expected, resulting in a net actuarial gain of approximately \$73,000. This gain was mainly attributable to an investment return greater than assumed, 7.8% versus 7.5%. There was a loss due to salary increases greater than assumed, 5.36% versus 3.78%. Other small demographic gains made up the difference.







City Contribution Requirements



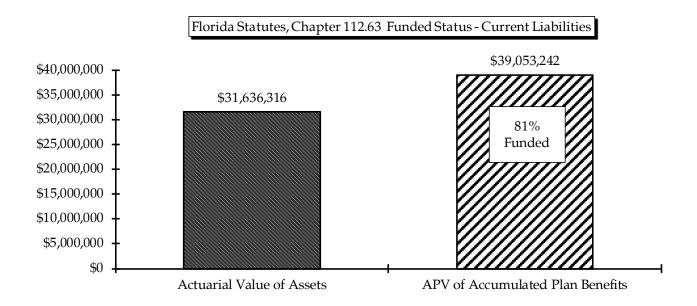
Annual Requirements*	2014-15	2015-16	2016-17
Normal Cost	\$ 840,230	\$ 863,018	\$ 922,334
Expected Member Contributions	508,130	498,005	540,609
City Normal Cost	\$ 332,100	\$ 365,013	\$ 381,725
Amortization Payment	1,184,926	1,178,459	1,204,086
Net City Normal Cost/Recommended Contribution	\$ 1,517,026	\$ 1,543,472	\$ 1,585,811
Recommended City Contribution if Paid			
at Beginning of Year	1,457,248	1,484,499	1,525,220

^{*} Assumed payable in 12 equal installments beginning October 31 of the year following the valuation date. Member contributions reduce the normal cost.

Contribution requirements have increased in dollar amount and decreased as a percentage of payroll since the last valuation.



Florida Statutes, Chapter 112.63 Funded Status – Current Liabilities



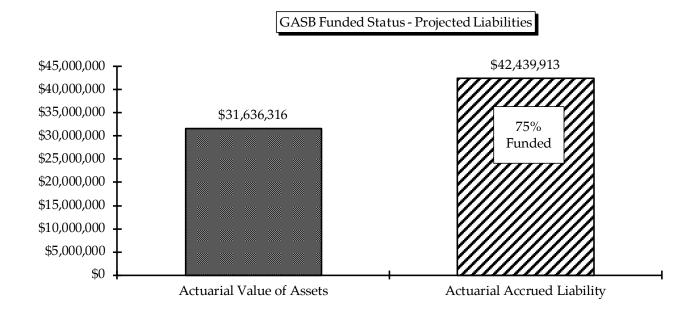
A comparison of current actuarial value of assets of the fund with the current actuarial present value (APV) of benefits accrued based on credited service and salary to date is now a required disclosure under Florida Statutes, Chapter 112.63. This measurement is often used as a surrogate for the liability if the Plan were to stop future benefit accruals. It is called "current liability" since it is based only on current earned benefits, even though the actual payment of those benefits extends many years into the future. The accumulated benefit liability APVs were developed using the statute required assumed rate of future investment return of 7.75%.

The current liability is normally expected to be more than 100% funded for an ongoing plan since the plan will ultimately be liable for a greater accrued benefit (the credited-projected benefit).

The Plan's current funded status is 81%.



GASB Funded Status - Projected Liabilities

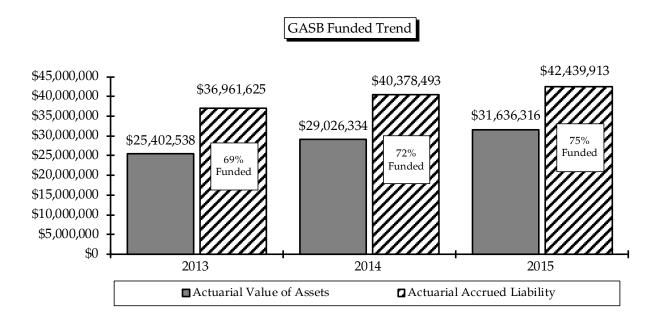


A comparison of assets with the actuarial present value (APV) of benefit liabilities projected per the GASB 27 guidelines, actuarial accrued liability (AAL), is used to judge the progress to date of funding the "ultimate" liability associated with benefits recognized per GASB 27. AAL is not normally expected to be 100% funded, but a maturing plan's funded ratio should increase over time. The AAL APVs were developed using an assumed rate of interest discount of 7.50%.

The Plan's GASB projected funded status is 75%.



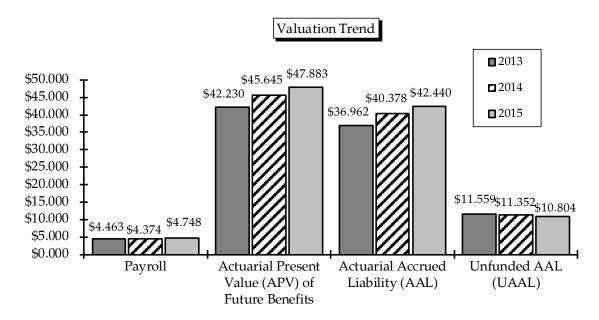
GASB Funded Trend



The GASB funded trend has increased since last year due mostly to favorable investment returns (on actuarial basis).

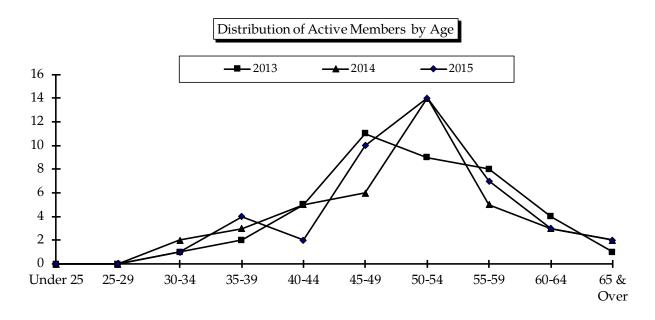


Valuation Trend



Plan liabilities have increased about as expected. In addition, liabilities will grow automatically due to the nature of the present value calculations, since discounts are removed as ongoing members progress closer to retirement. The UAAL decreased since last year due primarily to investment returns (actuarial basis) somewhat greater than that assumed.

Participation Trend



True Costs

It should be noted that the true costs of a retirement plan cannot be determined until its future unfolds. No one can precisely predict the interest earnings on fund assets, member termination rates, future salary levels, mortality experience, etc. Estimates based on experience with similar groups, along with the judgment of the actuary and the Plan sponsor, can provide a reasonable approximation of this true cost. As actual experience emerges under the Plan, it will be necessary to study the continued appropriateness of the techniques and assumptions used and to adjust the contribution rate as necessary.



SECTION 2

ACTUARIAL VALUATION DEVELOPMENT

Date and Basis of Valuation

Estimated liabilities for the benefits provided by City of Boca Raton Executive Employees' Retirement Plan and the contributions required to fund these liabilities have been determined as of October 1, 2015, based upon:

- 1. the provisions of the Plan, as applicable October 1, 2015, as summarized in Appendix A;
- 2. the actuarial assumptions and actuarial cost method, as summarized in Appendix B;
- 3. the statement of trust fund assets as of October 1, 2015, provided by the City, as summarized in Appendix C; and
- 4. the member data as of October 1, 2015, provided by the City, as summarized in Appendix D.

The trust fund asset information has been reconciled by the City. The member data has been supplied by the City and provided as representative of the current participating group. While the asset and member information was reviewed for overall reasonableness, Actuarial Concepts has relied on the City for this information and does not assume responsibility for either its accuracy or completeness.



Member Reconciliation

		Members					
		Actives	Retirees and Beneficiaries	DROP Retirees	Disabled Retirees	Vested Terminateds	Pending Refunds
Members at 10/	01/14	40	17	8	-	9	1
Increase (Decrease) D	ue to:						
Retirements		(1)	3	(1)	-	(1)	-
DROP Retirement		-	-	-	-	-	-
Nonvested Termina	ations	-	-	-	-	-	-
Vested Termination	ıs	(1)	-	-	-	1	-
New Entrants		4	-	-	-	-	-
Deaths		-	-	-	-	-	-
Rehires		-	-	-	-	-	-
Disableds		-	-	-	-	-	-
From LP Status		-	-	-	-	-	-
Lump-Sum Paymer	nt	-	-	-	-	-	-
Transfers		1					
Members at 10/	1/15	43	20	7	-	9	1

Valuation Financial Values

1	Destination				
1.	Participation (A. ii. M.)				40
	(a) Number of Active Members		43		
	(b) Number of Inactive Members (includes DROP Members)				37
	(c) Annualized Valuation Payroll for Contributing Members for Next 12			\$	4,748,431
	(d) Total Valuation Payroll (including any Members over Normal Retiren		-		4,748,431
2.	Actuarial Present Value (APV) of Future Benefits as of	10	/1/15		
	(a) Active Members				
	(1) Retirement				21,565,243
	(2) Withdrawal				310,035
	(3) Disability				491,539
	(4) Death				195,528
	(5) Refund of Contributions				102,649
	(6) Total			\$	22,664,994
	(b) Retirees and Beneficiaries				23,954,805
	(c) Disabled Retirees				-
	(d) Vested Terminated and Pending Refunds				1,263,036
	(e) Total APV Future Benefits			\$	47,882,835
3.	APV Apportionment of line 2(e)**				
	(a) APV of Total Future Normal Costs				5,442,922
	(b) Actuarial Accrued Liability [(2e)-(3a)]				42,439,913
	(c) Actuarial Value of Assets				31,636,316
	(d) Unfunded AAL (UAAL) [(3b)-(3c)]			\$	10,803,597
4.	Breakdown of UAAL on line 3(d)				
	(a) UAAL [3(d)]				10,803,597
	(b) Change in UAAL Due to Assumption Changes				
	(c) UAAL Before Change [(4a)-(4b)]			\$	10,803,597
	(d) Expected UAAL				10,876,772
	(e) Actuarial (Gain) Loss [(4c)-(4d)]			\$	(73,175)
		E	quiv. Annual		
5.	Contribution Requirements Due End of Month*** October	-16	Amount	%	6 of Payroll
	(a) Plan Normal Cost	\$	922,334		18.77%
	(b) Expense Normal Cost				0.00%
	(c) Total Plan Normal Cost	\$	922,334		18.77%
	(d) Amortization of UAAL	_	1,204,086	_	24.50%
	(e) Total Required Plan Contribution [(5c)+(5d)]	\$	2,126,420		43.27%
	(f) Estimated Member Contributions		540,609		11.00%
	(g) Net City Contribution [(5e)-(5f)]		1,585,811		32.27%
	(h) City Contribution if paid 10/1/15		1,525,220		31.03%

^{*} Excludes DROP Members.



^{**} Calculated in accordance with the Individual Entry Age Actuarial Cost Method.

^{***} Assumed payable in 12 equal installments at the end of each month beginning 10/31/16. Includes payroll growth rate of 3.5%.

Explanation of Financial Values

Actuarial Present Value of Future Benefits (line 2e)

The actuarial present value (APV) of future benefits is determined by first measuring the benefit amount that would be available for each member at various future dates (assuming future service credits earned and future salary increases awarded) under each of the events provided for by the Plan (retirement, disability, death, termination of employment). Then the future value of those benefit entitlements is determined by multiplying the various benefit amounts by the then current value of the annuities associated with those amounts. Finally, the APV of those future benefit values is determined by applying discounts to recognize the time value of money and probabilities of death, disability, termination of employment, etc.

APV of Total Future Normal Costs (line 3a)

The APV of future normal costs is that portion of the total APV of future benefits, as described above, that is assigned to future plan years by the Individual Entry Age Actuarial Cost Method (described in Appendix B).

Actuarial Accrued Liability (line 3b) and

Unfunded Actuarial Accrued Liability (line 3d)

The actuarial accrued liability (AAL) and the unfunded AAL (UAAL) (the AAL less the actuarial value of assets) are actuarial values generated under the Individual Entry Age Actuarial Cost Method, as described in Appendix B. These liability amounts are not the APV of benefits accrued to date by members but are actuarially determined amounts based on the accrual of Individual Entry Age normal cost amounts due prior to the valuation date. The liability for benefits accrued to date (the APV of accumulated benefits) is provided in Section 3.



Plan Normal Cost (line 4a)

The Plan normal cost for the 12-month period beginning on the valuation date has been determined by first calculating for each member an individual yearly normal cost (that changes in dollar amount as pay increases, but is constant as a percent of each individual's pay), then adding together to obtain the Plan normal cost amount as of the beginning of the year. This preliminary total is then adjusted for interest credits assuming contributions are made quarterly and an amount to allow for expected annual expenses.

Total Required Plan Contribution (line 4e) and

Net City Contribution (line 4g)

The total required contribution is the annual amount necessary to cover the normal cost and amortize the initial UAAL as of October 1, 2003, over a period of 30 years from October 1, 2003, over 30 years from date of inception for any changes to the Plan, assumptions or cost methodology, and over 15 years from date of inception for any actuarial gains or losses established after October 1, 2003. Each year's UAAL portion can be either positive or negative, with amortization credits occurring if negative. The City's <u>net</u> contribution is equal to the total required contribution less estimated member contributions.



Current Market Value of Assets vs. Expected Retirement Benefits

	Market Value of	Expected
	Assets with	Retirement
	Expected	Benefits of
	Interest Less	Current and
	Retirement	Emerging
Year	Benefits	Retirees
2014	\$ 30,913,847	\$ 2,088,013
2015	31,144,372	2,099,927
2016	31,380,273	2,133,684
2017	31,600,110	2,407,471
2018	31,562,647	2,578,342
2019	31,351,504	2,636,197
2020	31,066,670	2,826,782
2021	30,569,888	2,943,861
2022	29,918,769	3,044,355
2023	29,118,322	3,853,836
2024	27,448,360	4,207,527
2025	25,299,460	4,189,940
2026	23,006,980	4,445,301
2027	20,287,202	4,755,408
2028	17,053,335	4,736,677
2029	13,595,658	4,893,586
2030	9,721,746	5,090,163
2031	5,360,714	5,050,138
2032	712,630	5,082,441
2033	-	5,026,519
2034	-	4,962,959
2035	-	4,894,611
2036	-	4,884,431
2037	-	4,915,225
2038	-	5,076,164
2039	-	5,127,923
2040	-	5,014,172
2041	-	4,894,693
2042	-	4,771,135
2043	-	4,069,778
		, ,



Sensitivity Study - Estimated Valuation Financial Values at 5.5% Interest

This pro forma valuation estimates the effect on projected liabilities and contribution requirements if the Plan were to earn a return over the long term at a lower rate than the current assumed rate. A two percentage point difference in assumed rate was valued in accordance with State reporting requirements. Although projected liabilities would increase by about 32%, the net City contribution would increase by about 56% because the increase had no prior funding, whereas the present value of benefits based on current assumptions are partially funded. For returns between the current valuation rate and the pro forma rate, one can interpolate an estimate of resultant contribution requirements. Note if long term returns are greater than the current valuation assumed rate, the expected contribution requirements would be less than the current valuation requirement.



Sensitivity Study - Estimated Valuation Financial Values at 5.5% Interest

1.	Participation	
	(a) Number of Active Members	43
	(b) Number of Inactive Members (includes DROP Members)	37
	(c) Annualized Valuation Payroll for Contributing Members for Next 12 Months*	\$ 4,748,431
	(d) Total Valuation Payroll (including any Members over Normal Retirement Age)*	4,748,431
2.	Actuarial Present Value (APV) of Future Benefits as of 10/1/15	
	(a) Active Members	
	(1) Retirement	30,365,865
	(2) Withdrawal	492,816
	(3) Disability	744,993
	(4) Death	270,575
	(5) Refund of Contributions	87,433
	(6) Total	\$ 31,961,682
	(b) Retirees and Beneficiaries	29,257,213
	(c) Disabled Retirees	-
	(d) Vested Terminated and Pending Refunds	1,918,852
	(e) Total APV Future Benefits	\$ 63,137,747
3.	APV Apportionment of line 2(e)*	
	(a) APV of Total Future Normal Costs	9,131,120
	(b) Actuarial Accrued Liability [(2e)-(3a)]	54,006,627
	(c) Actuarial Value of Assets	31,636,316
	(d) Unfunded AAL (UAAL) [(3b)-(3c)]	\$ 22,370,311
4.	Breakdown of UAAL on line 3(d)	
	(a) UAAL [3(d)]	22,370,311
	(b) Change in UAAL Due to Assumption Changes	11,566,714
	(c) UAAL Before Change [(4a)-(4b)]	\$ 10,803,597
	(d) Expected UAAL	10,876,772
	(e) Actuarial (Gain) Loss [(4c)-(4d)]	\$ (73,175)
5.	Contribution Requirements Due End of Month** October-16 Equiv. Annual Amount	% of Payroll
	(a) Plan Normal Cost \$ 1,392,803	28.34%
	(b) Expense Normal Cost	0.00%
	(c) Total Plan Normal Cost \$ 1,392,803	28.34%
	(d) Amortization of UAAL 1,628,119	33.13%
	(e) Total Required Plan Contribution [(5c)+(5d)] \$ 3,020,922	61.47%
	(f) Estimated Member Contributions 540,609	11.00%
	(g) Net City Contribution [(5e)-(5f)] 2,480,313	50.47%
	(h) City Contribution if paid 10/1/15 2,409,700	49.03%

^{*} Excludes DROP Members.



^{**} Calculated in accordance with the Individual Entry Age Actuarial Cost Method.

^{***} Assumed payable in 12 equal installments at the end of each month beginning 10/31/16. Includes payroll growth rate of 3.5%.

Derivation of Current UAAL

Development of UAAL as of Valuation Date								
Unfunded Actuarial Accrued Liabi	ility (UAAL) as of	10/1/14	\$ 13	1,352,159				
2. Normal Cost - Year Ended	9/30/2015			830,044				
3. Interest Accrued on (1) and (2)				913,665				
4. Contributions - Year Ended	9/30/2015		,	2,086,627				
5. Interest Accrued on (4)				132,469				
6. Expected UAAL at	10/1/2015		10	0,876,772				
7. Changes Due to:								
(a) Actuarial Assumptions				-				
(b) Actuarial (Gain)/Loss				(73,175)				
(c) Total			\$	(73,175)				
8. UAAL at Valuation Date			10	0,803,597				

SECTION 3 ANALYSIS OF VALUATION RESULTS

Discussion of Valuation Results

If the participating group remained unchanged and all the actuarial assumptions were realized, the Plan's experience would be as anticipated, and there would be no actuarial gain or loss. If the experience were less favorable than anticipated, an actuarial loss would result; if more favorable, an actuarial gain would result.

For the 12 months ended September 30, 2015, the actual experience under the Plan, in aggregate, was more favorable than expected, resulting in a net actuarial gain of approximately \$73,000. This gain was mainly attributable to an investment return greater than assumed, 7.8% versus 7.5%. There was a loss due to salary increases greater than assumed, 5.36% versus 3.78%. Other small demographic gains made up the difference.

Future valuations will monitor the Plan's experience to determine whether actuarial gains or losses have occurred since the previous valuation. Recognition of these actuarial gains or losses will be made through adjustments to the UAAL and amortized as provided in Appendix B.

It should be noted that the true costs of a retirement plan cannot be determined until its future unfolds. No one can precisely predict the interest earnings on retirement fund assets, mortality rates to be experienced, member termination rates, future salary levels, etc. Estimates based on experience with similar groups, along with the judgment of the actuary and the Plan sponsor, can provide a reasonable approximation of this true cost. As actual experience emerges under the Plan, it will be necessary to study the continued appropriateness of the techniques and assumptions employed and to adjust the contribution rate as necessary.



Valuation Comparison Table

1. Member Data		10/01/14		10/01/15
(a) Active Members		40		43
(b) Retirees, Beneficiaries and Disableds (includes DROP Members)		25		27
(c) Vested Terminated and Limited Members		10		10
(d) Annualized Valuation Payroll for Contributing Members for Next 12 Months*	\$	4,374,217	\$	4,748,431
(e) Actuarial Present Value (APV) of Future Valuation Payroll	Ψ	29,519,800	Ψ	31,194,800
(f) Total Annual Benefit Payments		1,772,108		1,865,495
2. Assets		1,772,100		1,000,470
(a) Market Value		30,496,064		30,913,847
(b) Actuarial Value		29,026,334		31,636,316
3. Liabilities				0 1/00 0/0 10
(a) APV of Future Benefits				
(1) Active Members				
Retirement		20,025,921		21,565,243
Withdrawal		349,661		310,035
Disability		471,694		491,539
Death		196,800		195,528
Refund of Contributions		84,519		102,649
Total	\$	21,128,595	\$	22,664,994
(2) DROP Retirees	,	9,312,932	•	8,434,775
(3) Retirees and Beneficiaries		14,077,903		15,520,030
(4) Vested Terminateds and Pending Refunds		1,125,299		1,263,036
(5) Total	\$	45,644,728	\$	47,882,835
(b) APV of Vested Accrued Benefits	,	37,945,893	•	39,843,543
(c) APV of All Accrued Benefits		38,283,483		40,188,137
(d) Actuarial Accrued Liability (AAL)		, ,		-,,
(1) Retirement		15,302,637		16,692,847
(2) Withdrawal		171,753		134,483
(3) Disability		251,913		258,910
(4) Death		132,260		133,537
(5) Refund of Contributions		3,797		2,295
(6) Inactives		24,516,133		25,217,841
(7) Total	\$	40,378,493	\$	42,439,913
(e) Unfunded AAL (UAAL)	,	11,352,159	,	10,803,597
4. Breakdown of Plan Normal Costs		<u> </u>		
(a) Retirement		778,010		830,167
(b) Withdrawal		23,480		24,283
(c) Disability		39,911		43,822
(d) Death		11,367		11,513
(e) Refund of Contributions		10,250		12,549
(f) Total	\$	863,018	\$	922,334



Valuation Comparison Table (continued)

5.	Contribution Requirements* for Year Ended	C	09/30/16	09/30/17	
	(a) Plan Normal Cost**	\$	863,018	\$	922,334
	(b) Amortization Payment		1,178,459		1,204,086
	(c) Total Plan Requirements*	\$	2,041,477	\$	2,126,420
	(d) Estimated Member Contributions		498,005		540,609
	(e) Total City Requirements*	\$	1,543,472	\$	1,585,811
	(f) Total City Requirement Adjusted to End of Year***		1,595,836		1,639,611
6.	Past Contributions for Year Ended	9	/30/2015		
	(a) (1) Contribution Required by City EOY Adjusted	\$	1,570,185		
	(2) Contribution Required by Members EOY Adjusted		525,936		
	(b) (1) Actual City Contributions Paid		1,457,248		
	(2) Actual Member Contributions Paid		635,026		
	(c) (1) Actual City Contribution Interest Adjusted to End of Year		1,566,542		
	(2) Actual Member Contribution Interest Adjusted to End of Year		658,409		

^{*} Annual amounts assumed payable in 12 equal installments at the end of each month. Includes a payroll growth rate of 3.5%.



^{**} Normal cost is determined based on the Individual Entry Age Actuarial Cost Method.

^{***} Includes interest adjustments at the valuation rate on amounts to end of year.

Effect of Amortization Policy on Contribution Requirements

It is intended that the initial UAAL be amortized over a period of 30 years from October 1, 2003. Actuarial (gains) or losses will be amortized over 15 years from inception. The amortization schedule is presented below:

		Initial	Date of First	Years Remaining	Δm	ortization		utstanding Balance at
		Amount	Charge	10/1/15		Payment		10/1/15
UA	AAL Bases:							
1.	Initial	\$ 2,240,543	10/01/03	18	\$	84,427	\$	1,056,814
2.	2004 Loss	408,970	10/01/05	4		60,885		215,244
3.	2004 Increase	1,291,030	10/01/05	19		118,309		1,526,002
4.	2005 Loss	159,792	10/01/06	5		22,937		99,511
5.	2006 Loss	126,096	10/01/07	6		17,453		89,212
6.	2007 Gain	(102,389)	10/01/08	7		(13,665)		(80,022)
7.	2008 Loss	1,617,418	10/01/09	8		208,143		1,368,109
8.	2008 Increase	440,783	10/01/09	23		35,007		511,746
9.	2009 Loss	2,201,117	10/01/10	9		273,145		1,983,861
10.	2009 Decrease	(432,173)	10/01/10	24		(33,095)		(496,730)
11.	2010 Loss	557,597	10/01/11	10		66,725		528,957
12.	2010 Increase	693,920	10/01/11	25		51,245		788,416
13.	2011 Loss	1,777,394	10/01/12	11		205,346		1,759,237
14.	2011 Increase	519,511	10/01/12	26		37,052		583,480
15.	2012 Loss	1,331,895	10/01/13	12		148,486		1,363,560
16.	2012 Decrease	(328,136)	10/01/13	27		(22,594)		(363,687)
17.	2013 Gain	(154,216)	10/01/14	13		(16,598)		(162,260)
18.	2014 Gain	(957,633)	10/01/15	14		(99,483)		(1,029,355)
19.	2014 Increase	1,055,238	10/01/15	29		67,720		1,134,677
20.	2015 Gain	(73,175)	10/01/15	15		(7,359)		(73,175)
	Total				\$	1,204,086	\$	10,803,597



UAAL Repayment Schedule

		Amortization
End of Year	UAAL Balance	Payments
2015-2016	\$ 10,803,597	\$ 1,178,460
2016-2017	10,388,170	1,204,086
2017-2018	9,915,078	1,246,229
2018-2019	9,362,678	1,289,847
2019-2020	8,723,487	1,267,487
2020-2021	8,059,610	1,285,528
2021-2022	7,327,180	1,309,793
2022-2023	6,514,584	1,372,433
2023-2024	5,575,899	1,155,652
2024-2025	4,792,257	836,420
2025-2026	4,281,831	774,756
2026-2027	3,797,251	512,212
2027-2028	3,549,364	313,355
2028-2029	3,489,689	349,403
2029-2030	3,388,050	517,219
2030-2031	3,104,266	547,233
2031-2032	2,767,984	566,386
2032-2033	2,386,562	586,210
2033-2034	1,955,919	455,208
2034-2035	1,629,213	251,382
2035-2036	1,489,976	260,181
2036-2037	1,331,146	269,287
2037-2038	1,150,933	278,712
2038-2039	947,403	213,849
2039-2040	796,064	294,346
2040-2041	549,660	187,639
2041-2042	395,747	106,644
2042-2043	314,523	165,641
2043-2044	165,851	171,439
2044-2045	0	-

Current Liabilities/Asset Comparison*

Accumulated Plan Benefits		
	10/1/14	10/1/15
1. Actuarial Present Value (APV)** of Vested Accrued Benefits		
(a) Vested Terminated Participants	\$ 1,125,299	\$ 1,202,398
(b) Retirees and Beneficiaries	14,077,903	15,174,456
(c) DROP Retirees	9,312,932	8,234,699
(d) Active Participants	13,429,760	14,119,328
(e) Total APV** of Vested Accrued Benefits	\$ 37,945,893	\$ 38,730,880
2. APV** of Nonvested Accrued Benefits	337,590	322,362
3. APV** of Accumulated Plan Benefits [(1)+(2)]	\$ 38,283,483	\$ 39,053,242
4. Actuarial Value of Assets	29,026,334	31,636,316
5. Excess (if any) of APV** of Accumulated Plan		
Benefits over the Actuarial Value of Assets [(3)-(4)]	9,257,149	7,416,926
6. Percent Funded [(4)/(3)]	76%	81%
Statement of Changes in Accumulated Plan Benefits*		
1. APV** of Accumulated Plan Benefits at 10/1/14		\$ 38,283,483
2. Increase (Decrease) During the Year Attributable to:		
(a) Plan Amendment		-
(b) Change in Actuarial Assumptions		-
(c) System Changes		-
(d) Benefit Payments		(1,754,186)
(e) Change in Benefits and APV** Factors		2,523,945
3. APV** of Accumulated Plan Benefits at 10/1/15		\$ 39,053,242

^{*} Per Florida Statute 112.63 funded status.

^{**} Based on 7.75% interest, RP-2000 Combined Healthy Mortality Table-Dynamic with projection to valuation year and other assumed decrements as described in Appendix B.



Comparison of Actual and Assumed Salary Increases

Period Ended September 30	Actual Rate of Increase	Assumed Rate of Increase
2006	6.71%	4.43%
2007	5.62%	4.34%
2008	6.84%	4.46%
2009	6.29%	4.63%
2010	1.82%	2.50%
2011	1.12%	0.00%
2012	0.74%	1.00%
2013	1.23%	1.00%
2014	0.44%	1.00%
2015	5.36%	3.78%

Comparison of Actual and Assumed Investment Returns

Period Ended September 30	Actuarial Rate of Return	Market Rate of Return	Assumed Rate of Actuarial Return
2006	7.08%	7.65%	8.00%
2007	8.28%	12.74%	8.00%
2008	3.49%	-15.18%	8.00%
2009	4.92%	2.09%	8.00%
2010	3.38%	9.64%	8.00%
2011	1.58%	0.05%	7.75%
2012	2.48%	19.36%	7.75%
2013	10.62%	14.86%	7.75%
2014	12.61%	10.12%	7.50%
2015	7.80%	0.28%	7.50%

<u>Calculation of Actual Rate of Investment Return on Actuarial Value</u>

Plan	Plan Year Ended September 30, 2015				
R	=	, where			
		M1+M2-I			
Ι	=	the interest, dividends, plus appreciation or (depreciation)			
M1	=	beginning actuarial value			
M2	=	ending actuarial value			
R	=	2 X \$2,277,541			
		(\$29,026,334 + 31,636,316 - \$2,277,541)			
R	=	\$4,555,083			
		\$58,385,109			
R	=	7.80%			

Calculation of Actual Rate of Investment Return on Market Value

Plan `	Plan Year Ended September 30, 2015			
R	=	, where		
		M1+M2-I		
I	=	the interest, dividends, plus appreciation or (depreciation)		
M1	=	beginning market value		
M2	=	ending market value		
R	=	2 X \$85,342		
		(\$30,496,064 + \$30,913,847 - \$85,342)		
R	=	\$170,685		
		\$61,324,569		
R	=	0.28%		

Additional Disclosures

There are no additional disclosures required under Rules 22D-1.003(4)(f) and (g) of the State of Florida, Department of Management Services, Division of Retirement.



CITY OF BOCA RATON EXECUTIVE EMPLOYEES' RETIREMENT PLAN

SUMMARY OF PLAN PROVISIONS THAT AFFECT THE VALUATION

Definitions

1. Ordinances: Original Ordinance #4745

Amendment #4805 Amendment #4839 Amendment #4925 Amendment #5021 Amendment #5152

2. Plan Year: October 1 through September 30.

3. Member: All eligible managers hired on or after

December 1, 2003, and before November 1, 2007, must participate upon date of hire. All eligible managers hired after November 1, 2007 may elect to participate. Managers actively employed as of November 30, 2003, may elect to participate as of December 1, 2003. Managers are divided

into four divisions:

Division 1 – Positions classified as D-1, D-2 and

D-3

Division 2 - Positions designated as D-4 and

higher D classifications

Division 3 – Assistant City Manager, Senior Assistant City Attorney and all department

heads (positions classified as DD)

Division 4 – City Manager and City Attorney

4. Member Contributions: For all divisions, 11% of Compensation

accumulated at 5% interest, compounded

annually.

5. Vesting Service: The number of full and fractional years worked

from the later of date of hire or Effective Date to date of termination or retirement, plus any past

service purchased as provided below.

Actuarial Concepts

Vesting Service credit may be purchased for full-time employment with the City of Boca Raton prior to the Effective Date either by (1) payment to the Plan within 30 days of Effective Date of 70% of the full actuarial cost of such service credit, or (2) payment to the Plan before separation of employment or entry into DROP 100% of the full actuarial cost of such service credit. Service that is credited under the General or Police and Firefighters Plan may not be purchased unless the member transfers to this Plan.

Up to 5 additional years of Vesting Service credit may be purchased for periods of employment interrupted by military service by payment of the contributions that would have been required of the Member during such period of service, plus interest.

Total of Vesting Service plus any past service purchased as provided below.

Five additional years of Benefit Service credit purchased for prior full-time may employment with the federal government, including active duty in the armed forces, or any state, county or city government (excluding the City of Boca Raton), by payment of the full actuarial cost of such service credit. If such prior service is deemed ineligible for purposes of a higher benefit rate, may be purchased under the same terms and conditions that is equivalent to increased benefits that would be applicable if such prior service were eligible for purchase.

Base wages excluding all extra forms of compensation such as longevity pay, payments for car allowance, dependent medical insurance and lump-sum payouts of accumulated leave, but including salary reductions or deferrals to any salary reduction, deferred compensation or

6. Benefit Service:

7. Compensation:

tax-sheltered annuity program related to such base wages.

8. Average Final Compensation:

Divisions 1-3 – 1/60th of the average Compensation of the 130 best pay periods of the last 260 pay periods prior to termination.

Division 4 - 1/60th of the average Compensation of the 52 best pay periods of the last 260 pay periods prior to termination.

9. Accrued Benefit:

A monthly annuity benefit equal to a percentage of Average Final Compensation times Benefit Service payable in accordance with the standard form of annuity, starting at the Normal Retirement Date as provided below:

Division 1 – 3.05% Division 2 – 3.15% Division 3 – 3.25%

Division 4 - 4.55% for the first 10 years and 3.35% thereafter.

For employees who become Members after September 30, 2010, the lowest benefit multiplier in the EERP shall be equal to the greatest multiplier provided to Option C of the General Employees Pension Plan (GEPP).

Division 1 – Same percentage as greatest multiplier provided to Option C of the GEPP plus six-tenths (0.6).

Division 2 – Division 1 percentage plus one-tenth (0.10).

Division 3 – Division 2 percentage plus one-tenth (0.10)

Division 4 – Division 3 percentage plus one-tenth (0.10)

A Member's annual benefit may not exceed the lesser of 90% (80% for those who became Members after September 30, 2010) of the Member's Average Final Compensation or the

maximum adjusted benefit defined in IRC Section 415(b).

Standard Form of Annuity —

Division 1 – 25% joint-and-survivor

Division 2 – 50% joint-and-survivor

Division 3 – 75% joint-and-survivor

Division 4 – 100% joint-and-survivor

10. Normal Retirement:

Eligibility Date — The earliest of age 55 and completion of 10 years of Vesting Service and age 65 and completion of 6 years of Vesting Service. Special age-65 normal retirement eligibility to transition Members who join on Effective Date.

For employees who become Members after September 30, 2010, conditions for Normal Retirement are age 65 with at least 6 years of Vesting Service, or age 58 with at least 10 years of Vesting Service.

<u>Benefit</u> — Accrued Benefit payable as of the Normal Retirement Date in the standard form of annuity.

11. Early Retirement:

Members prior to October 1, 2010:

<u>Eligibility Date</u> — Age 50 and completion of 10 years of Vesting Service. Special involuntary termination conditions apply to Division 4 Members.

Benefit — Accrued Benefit as of the Early Retirement Date payable at Normal Retirement Date or payable at the Early Retirement Date and reduced for Division 1, 2 and 3 Members by 5/12% and for Division 4 Members 2/12% for each month by which commencement of benefit precedes Normal Retirement.

Members after September 30, 2010:

<u>Eligibility Date</u> — For employees who become Members after September 30, 2010, conditions for Early Retirement are age 53 with 10 years or more of Vesting Service.

Benefit — Same as other except "reduced for Division 1, 2 and 3 Members by 5/12% for each month by which Benefit Commencement Date precedes age 58; and for Division 4 Members by 1/6% for each month preceding age 58.

12. Disability Benefit:

<u>Eligibility</u> — Total and permanent disability; no service requirement.

Benefit — 60% of Average Final Compensation as of date of disability payable starting at age 65 as the standard form of benefit, with Average Final Compensation indexed at 2% per year from disability to age 65.

13. Death Benefit before Termination:

Members prior to October 1, 2010:

<u>Eligibility</u> — Death while actively employed.

Benefit —

Age 55 with 6 or More Years of Service — Accrued Benefit at time of Member's death payable to beneficiary for life as follows:

Division 1 –25% of Accrued Benefit Division 2 –50% of Accrued Benefit Division 3 –75% of Accrued Benefit Division 4 –100% of Accrued Benefit

6 or More Years of Service but Under Age 55

Division 1 –25% of Accrued Benefit Division 2 –50% of Accrued Benefit Division 3 –75% of Accrued Benefit

<u>6 or More Years of Service but Under Age 50</u> Division 4 –100% of Accrued Benefit



If the Member is actively employed but has less than 6 years of Vesting Service at date of death, the beneficiary shall receive a refund of Member Contributions with interest at 5%. Special eligibility conditions apply for Members who join the Plan on the Effective Date and die with less than 6 years of service.

Members after September 30, 2010:

The above is applicable except the references to age 55 shall be age 58 and to age 55 shall be age 53

14. Death Benefit after Termination:

If the Member terminated employment and is not eligible to receive immediate retirement benefits at date of death, the beneficiary shall receive a refund of Member Contributions with interest at 5%.

If the Member terminated employment and is eligible to receive immediate retirement benefits but payments have not yet commenced at date of death, payments shall be made to the beneficiary as if the Member had elected to receive benefits commencing on the day before the date of death or a refund of Member Contributions with interest at 5%, if greater.

If the Member dies after payment of retirement benefits has commenced, death benefits will be subject to the terms of the optional benefit form elected.

Special involuntary termination conditions apply to Members who joined as of the Effective Date.

15. Termination Benefit:

A terminating Member with less than 6 years of Vesting Service will receive a refund of Member



Contributions with interest at 5%. A terminating Member with 6 or more years of Vesting Service but less than 10 will receive the Accrued Benefit as of the termination date payable at age 65; or with 10 or more years of Vesting Service and less than age 50, payable at age 55.

Special vesting conditions apply to Members who joined on the Effective Date who terminated with less than 6 years of service, and special normal retirement conditions apply during the first 3 years of the Plan to Members who joined on the Effective Date and are involuntarily terminated under certain conditions.

16. Standard (Unreduced) Form of Payment:

Division 1-25% joint-and-survivor annuity Division 2-50% joint-and-survivor annuity Division 3-75% joint-and-survivor annuity Division 4-100% joint-and-survivor annuity

17. Optional Forms of Payment:

Life annuity; 5-years-certain-and-life; 100%/75%/50% joint-and-survivor annuity; actuarial equivalent to normal form.

18. Cost-of-Living Increase:

<u>Eligibility</u> — Members who began participating on the Effective Date are eligible irrespective of when termination occurs; all other Members are eligible if they terminate after becoming eligible for immediate early or normal retirement benefits.

<u>Benefit</u> — 2%-per-year increase for Divisions 1, 2 and 3 and 3%-per-year increase for Division 4 in current monthly benefit commencing on October 1 following 5 years after retirement (pro rata for less than 12 months since the fifth anniversary of retirement).

19. Health Supplement:

<u>Eligibility</u> — Members who terminate with 10 or more years of Benefit Service and are eligible for immediate early or normal retirement benefits.



Benefit — \$10 per month times Benefit Service payable to retirees under standard form of annuity, reduced 5% per year if Member had less than 25 years of service and retirement is before age 55 or age 58, as applicable. Not subject to optional forms of annuity; cost-of-living adjustments apply in the same percentage at the same time as applicable to the regular Plan benefit.

Special eligibility conditions apply to Members who joined the Plan on the Effective Date and purchased Vesting Service for at least 50% of their prior service, and reduction is 5% for Divisions 1, 2 and 3 or 2% for Division 4 Members.

Eligibility — Age 55 (or age 58 for employees who become Members after September 30, 2010) with 10 or more years of Vesting Service for Divisions 1, 2 and 3, and age 50 (or age 53 for employees who become Members after September 30, 2010) with 10 or more years of Vesting Service for Division 4 Members.

Benefit — Members may elect to retire from the Plan while still employed and accumulate monthly retirement payments in a separate account within the Plan for a period not to exceed 60 months. Separation from employment must occur within a 36-month period. DROP account is credited with fund earnings as elected by the Member.

20. DROP:

<u>ACTUARIAL ASSUMPTIONS AND ACTUARIAL COST METHOD SUMMARY</u>

Actuarial Assumptions

1. Investment Return: 7.50% per annum, compounded annually*; net of

investment expense.

2. Salary Increase Rate: Years of Service Rate*
2 and Under 6.0%
3 - 4 5.0
5 - 6 4.0
7 and Over 3.25

3. Mortality Rates: RP-2000 Combined Healthy Mortality Table-

Dynamic with projection to valuation year

Probability of Death Within One Year

After Attaining Age Shown

<u>Age</u>	<u>Male</u>	<u>Female</u>
25	0.0323%	0.1680%
35	0.0717	0.0402
45	0.1239	0.0882
55	0.2718	0.2409
65	1.0309	0.9003

4. Disability Mortality Rates:

Probability of Death Within One Year

After Attaining Age Shown

<u>Age</u>	<u>Male</u>	<u>Female</u>
25	0.17%	0.09%
35	0.37	0.21
45	0.66	0.48
55	1.50	1.25
65	5.53	4.62

^{*}Includes underlying long-term rate of inflation of 3% per annum.

Actuarial Concepts

5. Termination Rates:

Probability of Terminating Service (for reasons other than death, disability or retirement) Within One Year After Attaining Age and Service Shown

Males & Females

	Years of Service				
<u>Age</u>	<u>0 - 1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5+</u>
Under 25	15.0%	10.0%	8.0%	7.0%	7.0%
30	15.0	10.0	8.0	7.0	5.5
35	15.0	10.0	8.0	7.0	4.3
40	15.0	10.0	8.0	7.0	3.0
45	15.0	10.0	8.0	7.0	2.3
50 and Over	15.0	10.0	8.0	7.0	1.5

6. Retirement Rates:

Probability of Retiring
Within One Year
After Attaining Age and Vesting Service Shown

	Years of Service				
<u>Age</u>	<u>0 - 9</u>	<u> 10 - 19</u>	<u>20</u>		
50 - 54	0.0%	2.5%	10.0%		
55 - 61	0.0	10.0	25.0		
62 - 64	0.0	25.0	50.0		
65 - 69	0.0	50.0	50.0		
70 & Over	100.0	100.0	100.0		

7. Disability Rates:

 Age
 After Attaining Age Shown

 25
 0.06%

 35
 0.06

 45
 0.16

 55
 0.60

 65
 1.00

Probability of Disability

8. Marital Status and Spouse's Age:

85% of members assumed to be married; male spouses assumed three years older than female members, and female spouses assumed three years younger than male members.



9. Growth Rate of Future

Membership Payroll: 3.5% per year.

10. Underlying Long-term

Inflation Rate: 3.0% per year.

Actuarial Value of Assets

Determined by adjusting the expected value of assets as of any valuation date by a portion of the cumulative differences of the market value of assets and the expected actuarial value of assets starting prospectively from October 1, 2003. (As of October 1, 2003, expected value was set equal to market value.) Each difference is fully recognized over a period not to exceed five years. The expected actuarial value of assets as of any valuation date is determined by applying actual Plan contributions and disbursements and the assumed investment yield to the previous year's expected actuarial value of assets adjusted for any fully recognized cumulative differences. The adjustment is further modified, if necessary, by an amount sufficient to ensure that the actuarial value of assets is not less than 80% nor more than 120% of market value.



Long-Term Expected Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimates of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These estimates are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation are summarized in the following table:

Development of Long Term Discount Rate

		Real Risk		Total		
		Free	Risk	Expected	Policy	Policy
	Inflation	Return	Premium	Return	Allocation	Return
Domestic Equity	3%	2%	4.5%	9.5%	60.0%	5.70%
Foreign Equity	3%	2%	5.5%	10.5%	10.0%	1.05%
Domestic Bonds	3%	2%	0.5%	5.5%	15.0%	0.83%
Intnl Bonds	3%	2%	1.5%	6.5%	15.0%	0.98%
Treasuries	3%	2%	0.0%	5.0%	0.0%	0.00%
Real Estate	3%	2%	2.5%	7.5%	0.0%	0.00%
Cash	3%	0%	0.0%	3.0%	0.0%	0.00%
Total				-	100.00%	8.55%

Discount Rate

The discount rate used to measure the total pension liability was 7.5%. The projection of cash flows used to determine the discount rate assumed that City contributions will continue to be made at actuarially determined contribution rates based on the funding requirements of Florida Statutes, taking into account the applicable member rate. Based on those assumptions, the pension plan's net fiduciary position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was used as the discount rate and applied to all periods of projected benefit payments to determine the total pension liability.



Actuarial Cost Method

To determine the Plan's contribution requirements, the Individual Entry Age Actuarial Cost Method was used. Under this method, the cost of each member's projected retirement benefit is funded through a series of annual payments, determined as a level percentage of each year's earnings from age at hire to assumed exit age. This level percentage, known as normal cost, is thus computed as though the Plan had always been in effect. A yearly normal cost for each member is individually determined by multiplying each member's level percentage by the applicable yearly earnings, then adding together to obtain the normal cost amount for the Plan for that year. The accrued value of normal cost payments due prior to the valuation date is termed the actuarial accrued liability (AAL). This amount minus the actuarial value of assets is known as the unfunded actuarial accrued liability (UAAL). The annual cost of a plan has two components: normal cost and an amortization payment, which may vary between prescribed limits, toward the UAAL.

It is intended that the UAAL bases established due to increases or decreases in liabilities attributable to changes in plan provisions and/or actuarial assumptions be amortized over 30 years from inception through monthly contributions expressed as a level percentage of each month's payroll, incorporating an assumption that future payroll will grow at the rate of 3.5% per year. Increases or decreases in liabilities due to experience gains will be amortized over 15 years from inception.

The cost method uses the effective date of the Plan as the entry age for all members who joined as of the effective date. To the extent that past service is purchased, the increase in actuarial present values (APVs) is allocated entirely to the AAL and the entry age projected is unchanged. Future employee entry age will also be set at the date of Plan entry and will not change if past service is purchased. Members who transfer as active members from the general employees' plan will inherit the entry age associated with asset liability transfers to this Plan, if any.



Miscellaneous Valuation Procedures

- 1. Projected retirement benefits were limited to IRC Section 415 benefit limits applicable to the current plan year (for 2015, \$210,000), payable as a life annuity, beginning at or after age 62, reduced as applicable for earlier benefit commencement with assumed increases equal to the assumed long-term rate of inflation.
- 2. Projected earnings were limited to IRC Section 401(a)(17) compensation limits applicable to the current plan year (for 2015, \$265,000) with assumed increases equal to the assumed long-term rate of inflation.
- 3. Annual covered payroll is the amount of total pensionable earnings paid during the prior fiscal year for employees who are currently active members in the Plan. Valuation payroll is payroll expected to be paid during the current fiscal year, determined using prior-year covered payroll and the salary increase assumption by individual member.
- 4. Member information is current as of October 1, 2015.
- 5. No liability was recognized in the valuation for nonvested employees who have terminated, whether or not a break in service has occurred as of the valuation date, since any potential liability for this group is not significant. Note that upon rehire, any applicable prior employment service credits will be fully recognized in the valuation.



6. The effect of member contributions on the funding of normal cost requirements has been recognized through subtracting the member contribution rate from the total Plan normal cost rate to determine the net City portion.

TRUST FUND BALANCE AS OF 10/1/15	T FUND BALANCE AS OF 10/1/15	
		Value
Cash and Equivalents	\$	259,495
Diversified Small Cap Portfolio		4,378,973
Diversified Value Portfolio		2,822,004
International Blend Portfolio		3,081,499
Broad Market High Quality Bond Portfolio		3,924,857
Core Plus Fixed Income		5,741,320
High Quality Growth Portfolio		3,113,936
Russell 1000 Index Portfolio		9,114,750
Reserve - DROP		(1,608,206)
Accrued Contribution		-
Receivable for Employee Contributions		85,219
Total*	\$	30,913,847

Asset Percentage Weightings

Cash	0.80%
Equity	69.40%
Bond	29.80%
Real Estate	0.00%
Alternative Investments	0.00%
Total	100.00%

^{*} Excludes DROP account balances.

ANALYSIS OF CHANGES IN MARKET VALUE OF ASSETS

Market Value of Assets as of 10/1/14	\$ 30,496,064
Add:	
City Contributions	1,457,248
Member Contributions	635,026
Rollover Contributions	21,680
Prior Year Reserve - DROP	1,214,346
Realized Gains\(Losses)*	-
Unrealized Gains\(Losses)*	-
Investment Earnings	125,235
Net Appreciation (Depreciation)	0
Total Additions	\$ 3,453,535
Deduct:	
Benefit Payments	1,121,448
DROP Payments	238,878
Refund of Contributions	-
Reserve - DROP	1,608,206
Administrative Expenses	27,327
Investment Expenses	39,893
Total Deductions	\$ 3,035,752
Market Value of Assets as of 10/1/15**	30,913,847
(includes \$6,400,560 in accumulated member contributions)	

^{*} The FMTPF Fund is a Pooled Trust and the ability to distinguish this is not available.



^{**} Excludes DROP account balances.

ANALYSIS OF CHANGES IN ACTUARIAL VALUE OF ASSETS

Actuarial Value of Assets as of 10/1/14	\$ 29,026,334
Add:	
City Contributions	1,457,248
Member Contributions	635,026
Rollover Contributions	21,680
Prior Year Reserve - DROP	1,214,346
Realized Gains\(Losses)*	-
Unrealized Gains\(Losses)*	-
Investment Earnings	125,235
Net Appreciation (Depreciation)	2,192,199
Total Additions	\$ 5,645,734
Deduct:	
Benefit Payments	1,121,448
DROP Payments	238,878
Refund of Contributions	-
Reserve - DROP	1,608,206
Administrative Expenses	27,327
Investment Expenses	39,893
Total Deductions	\$ 3,035,752
Actuarial Value of Assets as of 10/1/15**	31,636,316
(includes \$6,400,560 in accumulated member contributions)	

^{*} The FMTPF Fund is a Pooled Trust and the ability to distinguish this is not available.



^{**} Excludes DROP account balances.

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS AS OF 10/1/15

1. Market Value of Assets as of 10/1/15*	\$ 30,913,847
2. Expected Value of Assets as of 10/1/15	30,750,402
3. Current Year's Difference	(2,269,739)
4. 20% of Current Difference [(3)x0.2]	(453,948)
5. Previous Year's Cumulative Adjustments*	1,339,862
6. Preliminary Actuarial Value of Assets [(2)+(4)+(5)]	31,636,316
7. 80% of Market Value [(1)x0.8]	24,731,078
8. 120% of Market Value [(1)x1.2]	37,096,616
9. Actuarial Value of Assets within 20% of Market Value Corridor at 10/1/15	31,636,316

^{*}Excludes DROP account balances.



DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS AS OF 10/1/15

Exp	pected Value			2015
Pre	evious Year's:	•		
1.	Expected Value		\$	27,954,394
2.	Previous Years' Fully Recognized Difference			278,243
3.	Interest on (1) and (2)			2,117,448
4.	Contributions with Interest			2,247,429
5.	Benefit Payments with Interest			1,818,779
6.	Administrative Expenses with Interest	_		28,333
Cui	ırrent Year's:			_
7.	Expected Value [(1)+(2)+(3)+(4)-(5)-(6)]		\$	30,750,402
Cui	imulative Differences			
1.	Market Value (MV)			30,913,847
2.	Expected Value (EV)	_		30,750,402
3.	Cumulative Difference [(1)-(2)]		\$	163,445
4.	Original Differences by Year			
	Initial		Inte	rest-Adjusted
	Year Amount	-		Amount
	(a) 2008 (3,480,347)			
	(b) 2009 (1,111,533)			
	(c) 2010 205,944			
	(d) 2011 (1,344,021)		\$	(1,807,450)
	(e) 2012 2,342,471			2,923,596
	(f) 2013 1,215,648			1,408,100
	(g) 2014 (84,708)			(91,061)
	(h) 2015 (2,269,739)			(2,269,739)
Act	tuarial Value			
1.	MV at 10/15			30,913,847
2.	EV at 10/15			30,750,402
3.	Current Year's Difference			(2,269,739)
4.	20% of Current Difference [(3)x0.2]			(453,948)
5.	Previous Years' Cumulative Adjustments			1,339,862 *
6.	Preliminary AV [(2)+(4)+(5)]			31,636,316
7.	80% of MV [(1)x0.8]			24,731,078
8.	120% of MV [(1)x1.2]			37,096,616
9.	AV within 20% MV Corridor at $10/15$			31,636,316

^{*} From "Cumulative Differences" $[(0.4 \times (4g)) + (0.6 \times (4f)) + (0.8 \times (4e)) + (1.0 \times (4d))]$



RECONCILIATION OF PLAN MEMBERS 10/01/14 - 10/01/15

	Actives	Retirees, Beneficiaries	DROP Retirees	Disabled Retirees	Vested Terminateds	Pending Refunds
10/01/14 Members	40	17	8	_	9	1
Increase (Decrease) Due to:						
Retirements	(1)	3	(1)	-	(1)	-
DROP Retirement	-	-	-	-	-	-
Nonvested Terminations	-	-	-	-	-	-
Vested Terminations	(1)	-	-	-	1	-
New Entrants	4	-	-	-	-	-
Deaths	-	-	-	-	-	-
Rehires	-	-	-	-	-	-
Disableds	-	-	-	-	-	-
From LP Status	-	-	-	-	-	-
Lump-Sum Payment	-	-	-	-	-	-
Transfers	1	-	-	-	-	-
10/01/15 Members	43	20	7		9	1

ACTIVE MEMBERS 10/01/15	Number
Vested Active	31
Non-Vested Active	12
Total	43

INACTIVE MEMBERS 10/01/15

	Number	Annual Benefit Amount		
Retirees and Beneficiaries				
Currently Receiving Payments	20	\$ 1,237,258		
DROP Retirees	7	628,237		
Disableds Receiving Payments	-	-		
Vested Terminated Members				
Entitled to Future Benefits	9	282,614		
Pending Refunds	1	*		
Total	37	\$ 2,148,109		

^{*} Reserve equals \$45,322

Actuarial Concepts

RECONCILIATION OF DROP ACCOUNT

Value as of 9/30/15

Value as of 9/30/14	\$ 1,214,345.99
Payments Credited to Account	639,253.86
Investment Earnings Credited	(6,515.51)
Withdrawals	(238,878.43)

\$ 1,608,205.91

DISTRIBUTION OF ACTIVE MEMBERS BY ATTAINED AGE AND COMPLETED YEARS OF VESTING SERVICE AS OF 10/01/15

Completed Years of Service

Attained Age	0	1	2	3 - 4	5 - 9	10 - 14	15- 19	20 -24	25 - 29	30 - 34	35 & Over	Total
Under 25	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	1	0	0	0	0	0	0	0	1
35-39	0	0	0	3	1	0	0	0	0	0	0	4
40-44	1	0	0	1	0	0	0	0	0	0	0	2
45-49	1	0	1	1	3	1	1	2	0	0	0	10
50-54	1	1	0	0	4	2	2	1	3	0	0	14
55-59	0	0	0	1	2	1	2	0	0	1	0	7
60	0	0	0	0	1	0	0	0	0	0	0	1
61	0	0	0	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0
63	0	0	0	0	0	0	0	1	0	0	0	1
64	0	0	0	0	0	1	0	0	0	0	0	1
65 & Over	0	0	0	0	2	0	0	0	0	0	0	2
Total	3	1	1	7	13	5	5	4	3	1	0	43

Average Age at Entry = 39.6 Average Age at Valuation = 50.9 Average Years of Service = 11.3



<u>DISTRIBUTION OF ACTIVE MEMBERS AND EARNINGS</u> <u>BY AGE AND SEX AS OF 10/01/15</u>

		Males			Females		Combined			
		2014-15	Average		2014-15			2014-15	Average	
Attained Age	<u>Number</u>	Earnings	Earnings	Number	<u>Earnings</u>	<u>Earnings</u>	<u>Number</u>	<u>Earnings</u>	<u>Earnings</u>	
Under 25	-	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	
25-29	-	-	-	-	-	-	-	-	-	
30-34	1	44,381	44,381	-	-	-	1	44,381	44,381	
35-39	2	179,162	89,581	2	158,229	79,115	4	337,391	84,348	
40-44	1	91,635	91,635	1	86,126	86,126	2	1 <i>77,7</i> 61	88,881	
45-49	5	553,525	110,705	5	435,513	87,103	10	989,038	98,904	
50-54	9	997,391	110,821	5	638,968	127,794	14	1,636,359	116,883	
55-59	3	388,338	129,446	4	414,649	103,662	7	802,987	114,712	
60	1	151,655	151,655	-	-	-	1	151,655	151,655	
61	-	-	-	-	-	-	-	-	-	
62	-	-	-	-	-	-	-	-	-	
63	1	98,508	98,508	-	-	-	1	98,508	98,508	
64	1	165,506	165,506	-	-	-	1	165,506	165,506	
65 & Over	-	-	-	2	221,125	110,563	2	221,125	110,563	
Total	24	\$ 2,670,101	\$ 111,254	19	\$ 1,954,610	\$ 102,874	43	\$ 4,624,711	\$ 107,551	

