GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

CITY OF SARASOTA POLICE OFFICERS' PENSION FUND

ACTUARIAL VALUATION REPORT AS OF SEPTEMBER 30, 2015

ANNUAL EMPLOYER CONTRIBUTION IS DETERMINED BY THIS VALUATION FOR THE PLAN YEAR ENDING SEPTEMBER 30, 2017

OUTLINE OF CONTENTS

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March 16, 2016

The Board of Trustees
City of Sarasota Police Officers' Pension Fund
Sarasota, Florida

The results of the September 30, 2015 Annual Actuarial Valuation of the City of Sarasota Police Officers' Pension Fund are presented in this report.

The computed contribution rate shown on page B-2 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

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

The purpose of the valuation is to measure the Plan's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2017, and to provide the actuarial information for Governmental Accounting Standards Board (GASB) Statements No. 67 for the fiscal year ending September 30, 2015. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2016. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The findings in this report are based on data or other information through September 30, 2015. 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 the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

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

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

In addition, this report was prepared using assumptions approved by the Board as described in the section of this report entitled Actuarial Assumptions and Methods.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by 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. In my opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

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

Respectfully submitted,

Peter N. Strong, FSA, MAAA
Enrolled Actuary No. 14-06975

Jeffrey Amrose, MAAA
Enrolled Actuary No. 14-06599

Section A

Valuation Results, Commentary and Statement by Enrolled Actuary

ACTUARIAL VALUATION PROCESS

An actuarial valuation is the process by which a balance between revenues (participant contributions, employer contributions and investment income) and obligations (benefits and expenses) is determined and funded condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

A. Covered person information about:

- each person receiving pension payments
- each former participant with a vested pension not yet payable
- each former participant who is not vested and has not claimed a member contribution refund
- each active participant

B. Financial Information (assets, revenues, and expenditures)

C. Benefit Provisions (Retirement Ordinance)

D. Actuarial Assumptions about the volume and incidence of future activities

E. Actuarial Cost Method (entry age) for allocating benefit costs to time periods

F. Mathematical linking of the person information, financial information, benefit provisions, experience estimates and actuarial cost method

G. Determination of:

- contribution rate for the plan year
- current funded condition

Items A, B and C are furnished by the pension office and constitute the current knowns about the Fund. Since the majority of activities will occur in the future, estimates must be made about these future activities (Item D).

Under the Entry Age Actuarial Cost Method, each year's differences between projected and actual Fund activities (experience gains/losses), decrease/increase the Unfunded Actuarial Accrued Liability. This treatment of experience gains/losses leaves the Normal Cost unaffected by year to year experience fluctuations and is thereby more likely to satisfy the level percent-of-payroll Funding Objective set out on page B-1. Normal Cost changes occur only in response to changes in benefits, actuarial assumptions and/or age at hire patterns.

OBSERVED EXPERIENCE

The City's contribution requirement for the fiscal year beginning October 1, 2016 is 71.89% of payroll compared to 78.40% for this fiscal year beginning October 1, 2015. The equivalent dollar contribution is projected to be $7.56 million for the fiscal year ending September 30, 2017 compared to $7.79 million for the fiscal year ending September 30, 2016.

The funded condition, as measured by the ratio of the funding value of assets to the actuarial accrued liabilities, is 76.3%, compared to last year's 73.5%.

The decreased contribution rate is attributable to investment returns that were more favorable than expected, in addition to demographic experience gains and lower than expected salary increases. The key elements of experience were:

- The rate of return on the funding value of assets was 8.3% versus the projected 7.0% (favorable). The return based on the market value was 0.6%.
- Salaries increased by 5.0% on average compared to an expected average increase of 5.6% (favorable).
- 8 terminations versus 2 expected (favorable).
- 2 retirements versus 4 expected (favorable).
- 5 retiree deaths (2 have beneficiaries, so 3 net) with $181,520 annual benefit versus 2.8 (with $159,805 in annual benefits) expected (favorable). We note that because the average age of the retirees who died was under 65, there was a significant experience gain (over $700,000) due to mortality experience.

The net result of all fiscal and demographic activity was an experience gain of $3,707,568. This caused a decrease in the total adjusted contribution requirement of 2.82% of covered payroll.

The City's underlying contribution rate was also affected by the net effect of demographic changes impacting normal cost and fluctuations in Chapter 185 receipts. One of these demographic changes is the change in covered pensionable payroll. Covered pensionable payroll was $9,694,205 as of September 30, 2014 and was projected to be $9,936,560 for the fiscal year beginning October 1, 2015. However, expected covered pensionable payroll for active members as of the start of the fiscal year beginning October 1, 2015 is $10,256,818. This has caused the amortization of the unfunded liability, when expressed as a percentage of pay, to be lower this year than it was expected to be last year.

Pension payroll is now 115.9% of active participant payroll (down from 118.3% last year). In the absence of a growing workforce, this percentage is expected to gradually increase with the passage of time. The contribution requirement anticipates continuation of this trend.

ACTUARIAL ASSUMPTIONS AND METHODS

There were no changes in assumptions or methods since the last actuarial valuation.

CHANGES IN PLAN PROVISIONS

There were no changes in benefits since the September 14, 2015 Actuarial Impact Statement (AIS). This AIS reflected a change in the interpretation of the ordinance such that the Normal Form of payment for benefits attributable to service performed prior to October 1, 2012 is a joint and 2/3 survivor annuity rather than a 10-year certain and life thereafter annuity.

RELATIONSHIP TO MARKET VALUE

If Market Value had been the basis for the valuation, the City contribution rate for the fiscal year ending September 30, 2016 would have been 68.94% and the funded ratio would have been 77.9% (versus 81.6% last year). In the absence of other gains and losses, the City contribution rate should decrease to that level over the next few years.

VARIABILITY OF FUTURE CONTRIBUTION RATES

The Actuarial Cost Method used to determine the contribution rate is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary significantly from year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

In addition to asset returns mentioned above, another potential area of variability has to do with the annual payment on the unfunded accrued liability (UAL). This payment is computed as a level percent of covered payroll under the assumption that covered payroll will rise by 2.5% per year. According to the Florida Administrative Code, this payroll growth assumption may not exceed the average growth over the last ten years, which is less than 0% (as it has been since 2012). Therefore the UAL continues to be amortized as a level dollar amount this year.

As mentioned on the previous page, covered payroll as of the valuation date increased from the previous valuation date. This caused the amortization payments to be 3.35% lower this year as a percentage of covered pay than they were expected to be.

In 2012, the Division of Retirement changed its interpretation in 2012 regarding the use of State Chapter Money, and additional guidance allowed continued use of State Chapter Money, even though benefits were reduced to less than March 1999 levels, as long as the Plan passes an annual minimum benefits test. The Plan passed this test for the fiscal year ending September 30, 2015, so State Chapter Money can be used to help meet the required contribution. Senate Bill 172 was signed into law in 2015. This legislation provides a great deal of flexibility with regard to the use of State Chapter money, as long as mutual consent exists between the City and the Union. The provisions of Senate Bill 172 become effective when the first collective bargaining agreement is entered into subsequent to July 1, 2015.

Actuarial Confirmation of the Use of State Chapter Money	
1. Base Amount Previous Plan Year	$ 544,301
2. Amount Received for Previous Plan Year	570,973
3. Benefit Improvements Made in Previous Plan Year	0
4. Excess Funds for Previous Plan Year: (2) - (1) - (3)	0
5. Accumulated Excess at Beginning of Previous Year	843,796
6. Prior Excess Used in Previous Plan Year	0
7. Accumulated Excess as of Valuation Date (Available for Benefit Improvements): (4) + (5) - (6)	843,796
8. Base Amount this Plan Year	570,973

The Accumulated Excess shown in line 7 is being held in reserve to pay for additional benefits. The reserve is subtracted from Plan assets (see Section C of this Report). The Base Amount in line 8 is the amount the employer may take as a credit against its required contribution.

Section B
Detailed Valuation Results

FUNDING OBJECTIVE

The funding objective for the Pension Fund is to establish and receive contributions, expressed as percents of active participant covered payroll, which are generally level from year to year when funding assumptions are realized and benefits are unchanged. This objective meets the requirements of Part VII, Chapter 112, Florida Statutes.

CONTRIBUTION RATES

The Pension Fund is supported by participant contributions, City contributions, Chapter 185 Florida Statutes receipts, and investment income on Pension Fund assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

(1) cover the costs allocated to the current year (normal cost) by the actuarial cost methods described in Section D ; and

(2) finance over a period of future years the actuarial costs not covered by present assets and anticipated future normal costs (unfunded actuarial accrued liability).

Initial financing periods used for the valuation are:

30 years for experience gains and losses occurring after 9/30/02;
25 years for benefit changes occurring after 9/30/02;
25 years for global actuarial assumption/method changes occurring after 9/30/02;
10 years for actuarial assumption/method changes occurring after 9/30/02 that apply only to retirees;

Contribution requirements for the fiscal years beginning October 1, 2015 and October 1, 2016 are shown on page B-2.

CONTRIBUTIONS TO FINANCE BENEFITS OF THE PENSION FUND

Contributions for Fiscal Year Ending	Conributions Expressed as Percents of Active Member Payroll for Fiscal Year Ending 9/30/2017	9/30/2016*
	% of Pay	% of Pay
Normal Cost		
Service pensions	26.51 %	26.87 %
Disability pensions		
Service connected	6.21	6.07
Non-service connected	0.73	0.74
Pre-retirement survivor pensions		
Service connected	0.28	0.29
Non-service connected	0.04	0.04
Termination Benefits		
Deferred service pensions	1.18	1.21
Refunds of member contributions	0.43	0.43
Total Normal Cost	35.38 %	35.65 %
Unfunded Actuarial Accrued Liability		
Retired members and beneficiaries	0.00 %	0.00 %
Active and vested terminated members	38.97	43.52
Total Unf'd. Actuarial Accrued Liability	38.97 %	43.52 %
Administrative Expenses	1.84 %	1.96 %
Total Unadjusted Computed Contribution	76.19 %	81.13 %
Adjustments to Computed Contribution		
FS 112.64 (5) Compliance	9.13 %	10.75 %
Full funding credit	0.00	0.00
Total Adjustments	9.13 %	10.75 %
Total Contribution Requirement	85.32 %	91.88 %
Member portion	8.00 %	8.00 %
Chapter 185 Portion **	5.43 %	5.48 %
City portion #	71.89 %	78.40 %
Estimated City Portion in Dollars (millions)	$ 7.56	$ 7.79
Expected covered payroll in contribution year (millions)	$ 10.51	$ 9.94

* From September 14, 2015 Actuarial Impact Statement.
** Based on estimate of respective fiscal year's payroll; if actual payroll is more than estimated, then City's portion will increase accordingly.

Please refer to page B-8 for a schedule of financing periods.
\# *The Pension Ordinance specifies a minimum City contribution of 8% of payroll.*

FS 112.64 requires City contributions to be deposited not less frequently than quarterly. Member contributions, which are in addition to the City contributions, must be deposited immediately.

FS 185.11 requires that Chapter 185 monies be deposited within 5 days of receipt.

Procedures for determining dollar contribution amounts are shown on page B-3.

Comparative contribution amounts for prior fiscal years are shown on page B-9.

DETERMINING DOLLAR CONTRIBUTIONS

For any period of time, the percent-of-payroll contribution rate needs to be converted to dollar amounts. We recommend that the City continues its current use of the following procedure.

Contribute dollar amounts at the end of each payroll period which are equal to the City's percent-of-payroll contribution requirement multiplied by the ***active participant covered payroll*** for the period. This amount may need to be adjusted at the end of the year to reflect the actual Chapter 185 contribution as a percentage of the actual participant covered payroll. This adjustment is made to ensure the total City plus State contribution equals 77.32% of covered pay for the fiscal year ending September 30, 2017.

Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Pension Fund benefits and to include non-payroll amounts that are covered compensation for Pension Fund benefits.

FUNDING PROGRESS INDICATORS

There is no single all-encompassing measure of a pension plan's funding progress and current funded status.

A traditional indicator has been the relationship of the funding value of assets to actuarial accrued liability - a measure that is influenced by the choice of actuarial cost method. This relationship is shown on page B-7.

We believe a better understanding of funding progress and status can be achieved using the following indicators which are less dependent on the actuarial cost method:

Indicator (1) - The gains or losses realized in the operation of the Pension Fund. Gains and losses are expected to cancel each other over a period of years but sizable year to year fluctuations are common. Further details on the derivation of the gain (loss) are shown on page B-6.

Indicator (2) - The ratio of the funding value of assets to the actuarial accrued liability using the entry age actuarial cost method. The ratio is expected to increase over time but the basic trend may be interrupted by benefit improvements and market volatility.

Indicator (3) - The ratio of the unfunded actuarial accrued liability to valuation payroll. In a soundly financed pension fund, the amount of the unfunded actuarial accrued liability will be controlled and prevented from increasing in the absence of benefit improvements. The ratio is expected to decrease over time but the basic trend may be interrupted by benefit improvements.

FUNDING PROGRESS INDICATORS - HISTORICAL COMPARISON ($AMOUNT IN MILLIONS)

	Indicator (1)	Indicator (2)			Indicator (3)		
Valuation Date	**Gain (Loss)**	**Funding Value of Assets**	**AAL**	**Percent Funded**	**Unfunded AAL**	**Active Participant Payroll**	**Ratio to Payroll**
September 30, 1993	$ 0.36	$ 44.28	$ 42.90	103.2 %	$ (1.38)	$ 7.75	(17.8) %
September 30, 1994	(0.98)	48.20	48.75	98.9	0.55	7.93	6.9
September 30, 1995	2.65	54.44	52.42	103.9	(2.02)	8.15	(24.8)
September 30, 1996	1.86	61.86	58.11	106.5	(3.75)	8.28	(45.3)
September 30, 1997	5.40	72.39	63.50	114.0	(8.89)	8.57	(103.7)
September 30, 1998	4.97	83.94	71.44	117.5	(12.50)	9.00	(138.9)
September 30, 1999	7.35	95.36	78.27	121.8	(17.09)	9.45	(180.7)
September 30, 2000	(5.17)	104.93	92.67	113.2	(12.26)	10.13	(121.0)
September 30, 2001	(3.98)	108.12	99.83	108.3	(8.29)	9.93	(83.4)
September 30, 2002	(7.67)	106.61	108.59	98.2	1.98	10.23	19.4
September 30, 2003	(9.17)	103.45	116.01	89.2	12.56	10.78	116.5
September 30, 2004	(8.03)	110.36	123.77	89.2	13.41	10.50	127.7
September 30, 2005	(0.95)	119.64	134.05	89.3	14.41	11.06	130.3
September 30, 2006	1.94	129.48	141.98	91.2	12.50	11.65	107.3
September 30, 2007	1.70	142.17	152.66	93.1	10.49	12.11	86.6
September 30, 2008	(1.77)	149.20	161.04	92.6	11.84	11.73	100.9
September 30, 2009	(5.79)	153.44	170.84	89.8	17.40	11.05	157.5
September 30, 2010	(6.32)	155.91	187.61	83.1	31.70	10.51	301.6
September 30, 2011	(8.31)	154.85	202.22	76.6	47.37	10.38	456.4
September 30, 2012	(5.88)	154.43	218.38	70.7	63.95	9.41	679.6
September 30, 2013	(0.42)	160.73	225.74	71.2	65.01	9.28	700.5
September 30, 2014	3.81	173.32	235.82	73.5	62.50	9.69	645.0
September 30, 2015	**3.71**	**184.69**	**241.96**	**76.3**	**57.27**	**10.26**	**558.2**

AAL represents actuarial accrued liability calculated using the entry age actuarial cost method.

EXPERIENCE GAIN (LOSS)

	Year Ended	
DERIVATION	**9/30/15**	**9/30/14**
(1) UAAL at start of year	$62,498,176	$65,009,404
(2) Normal cost for year (City normal cost plus expenses x last reported payroll)	2,745,725	2,515,589
(3) Employer and State contributions for year	8,435,377	8,223,214
(4) Interest accrued .07 x [(1) + ½ [(2) – (3)]]	4,175,735	4,350,891
(5) Expected UAAL before changes [(1) + (2) - (3) + (4)]	60,984,259	63,652,670
(6) Effect of assumption changes	None	None
(7) Effect of cost method changes	None	None
(8) Effect of benefit changes	None	2,651,796
(9) Expected UAAL after changes	60,984,259	66,304,466
(10) Actual UAAL	57,276,691	62,498,176
(11) Gain (loss) (9) - (10)	3,707,568	3,806,290
(12) % of AAL at start of year	1.6 %	1.7 %
(13) Gain (loss) due to investments	2,214,865	4,255,566
(14) Gain (loss) due to other sources	1,492,703	(449,276)

UAAL represents unfunded actuarial accrued liability.

AAL represents actuarial accrued liability.

UNFUNDED ACTUARIAL ACCRUED LIABILITY

	September 30, 2015	9/30/2014*
A. Actuarial present value of future benefits	$ 271,071,542	$ 263,931,024
B. Actuarial present value of future normal costs	29,109,196	28,114,734
C. Actuarial accrued liability	241,962,346	235,816,290
D. Actuarial value of assets	184,685,655	173,318,114
E. Unfunded actuarial accrued liability	57,276,691	62,498,176
F. Funded Ratio: D/C	76.3%	73.5%

* From September 14, 2015 Actuarial Impact Statement.

SOURCES AND FINANCING OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

Source of Unfunded Act. Accrued Liability	Unfunded Act. Accrued Liability: Initial Amount	Initial Fin. Per.	Current Amount	Remaining Financing Period 9/30/15	% of Payroll Contribution	FS112.64(5) Compliance
Experience (Gains) Losses						
9/30/2003	9,167,167	30	10,430,682	18	8.21	1.56
9/30/2004	8,026,003	30	8,669,576	19	6.59	1.31
9/30/2005	950,062	30	1,020,080	20	0.75	0.16
9/30/2006	(1,938,847)	30	(2,066,775)	21	(1.48)	(0.32)
9/30/2007	(1,703,202)	30	(1,834,872)	22	(1.27)	(0.29)
9/30/2008	1,768,602	30	1,936,966	23	1.31	0.31
9/30/2009	5,793,265	30	6,312,620	24	4.16	1.03
9/30/2010	6,317,627	30	6,697,939	25	4.31	1.10
9/30/2011	8,306,540	30	8,426,489	26	5.31	1.40
9/30/2012	5,884,828	30	5,808,355	27	3.59	0.98
9/30/2013	423,791	30	409,197	28	0.25	0.07
9/30/2014	(3,806,290)	30	(3,738,572)	29	(2.23)	(0.64)
9/30/2015	(3,707,568)	30	(3,707,568)	30	(2.17)	(0.65)
Benefit Changes						
9/30/2012	(8,932,604)	25	(8,664,885)	22	(6.01)	(1.37)
9/30/2014	2,651,796	25	2,590,865	24	1.71	0.42
Assumption or Cost Method Changes						
9/30/2004	(7,833,581)	25	(7,613,578)	14	(7.14)	(1.06)
9/30/2010	7,832,283	25	8,045,985	20	5.92	1.24
9/30/2011	6,334,919	25	6,273,163	21	4.48	0.98
9/30/2012	18,845,854	25	18,281,024	22	12.68	2.90
Totals	**54,380,645**		**57,276,691**		**38.97 %**	**9.13 %**

Note: The sum of the last two columns are added together when determining the funding requirement.

CITY/CHAPTER 185 CONTRIBUTION REQUIREMENT: HISTORICAL COMPARISION

Valuation Date	Applicable Fiscal Year	Percent Covered Payroll Contribution					Dollar Contribution (Amount in Millions)			
		Normal Cost	Expenses	UAAL	Adjustments	Total	Projected City	Actual		
								City	Chap. 185	Total
9/30/91 (c)	91-92	17.94	2.31	(2.45)	0.00	17.80	$ 1.23	0.74	0.51	1.25
9/30/92	92-93	17.80	2.44	(1.94)	0.00	18.30	1.39	0.90	0.48	1.38
9/30/93	93-94	17.78	2.47	(2.41)	0.00	17.84	1.41	0.92	0.48	1.40
9/30/94 (d)	94-95	17.60	2.75	(0.42)	0.00	19.93	1.62	1.12	0.50	1.62
9/30/95	95-96	17.49	3.28	(4.19)	0.00	16.58	1.38	0.89	0.54	1.43
9/30/96	96-97	17.54	4.37	(7.11)	0.00	14.80	1.25	0.74	0.60	1.34
9/30/97	97-98	17.64	5.69	(14.74)	0.00	8.59	0.75	0.74	0.64	1.38
9/30/98 (d)	98-99	17.57	4.91	(21.80)	0.00	0.68	0.74 @	0.76	0.62	1.38
9/30/99	99-00	17.67	6.85	(31.72)	0.00	0.00	0.77 @	0.76	0.61	1.37
9/30/00	00-01	18.21	6.78	(29.14)	0.00	0.00	0.81 @	0.77	0.63	1.40
9/30/01	01-02	17.95	5.78	(24.82)	(0.09)	0.00	0.79 @	0.77	0.64	1.41
9/30/02 (d)	02-03	24.86	1.26	(25.94)	0.00	0.18	0.82	0.81	0.64	1.45
9/30/02 (d)	03-04	24.86	1.26	2.23	0.00	28.35	2.33	2.28	0.64	2.92
9/30/03	04-05	25.03	1.20	9.11	0.00	35.34	3.25	3.16	0.64	3.80
9/30/04 (d)	05-06	24.27	0.98	9.87	0.19	35.31	3.19	3.30	0.64	3.94
9/30/05	06-07	24.91	1.30	10.25	0.00	36.46	3.52	3.69	0.64	4.33
9/30/06	07-08	25.03	1.07	9.08	0.00	35.18	3.59	3.54	0.64	4.18
9/30/07	08-09	25.73	0.99	8.02	0.00	34.74	3.70	3.36	0.64	4.00
9/30/08	09-10	25.66	1.29	9.26	0.24	36.45	3.77	3.37	0.57	3.94
9/30/09	10-11	25.47	1.28	13.35	1.44	41.54	4.10	3.57	0.57	4.14
9/30/10 (d)	11-12	26.19	1.22	23.47	5.17	56.05	5.51	4.88	0.54	5.42
9/30/11 (b)	12-13	21.32	1.32	26.89	6.16	55.69	5.95	5.32	0.55	5.87
9/30/12 (a)	13-14	24.45	2.01	49.29	10.58	86.33	7.79	7.68	0.54	8.22
9/30/13	14-15	25.95	2.05	45.97	11.85	85.82	7.62	7.86	0.57	8.43
9/30/14	15-16	27.65	1.96	43.52	10.75	83.88	7.79			
9/30/15	**16-17**	**27.38**	**1.84**	**38.97**	**9.13**	**77.32**	**7.56**			

(a) After change in benefits and actuarial assumptions.

(b) Based on Actuarial Impact Statement.

(c) After change in actuarial assumptions, actuarial cost method and termination of dedicated bond portfolio.

(d) After change in actuarial assumptions or methods.

@ Based on 8% from City. The Pension Ordinance specifies a minimum City contribution of 8%.

ACTUARIAL BALANCE SHEET - SEPTEMBER 30, 2015

Present Resources and Expected Future Resources

A. Net assets available for benefits		
1. Funding value of assets	$	184,685,655
B. Actuarial present value of expected future City and Ch. 185 contributions		
1. For normal costs		21,868,636
2. For unfunded actuarial accrued liability		57,276,691
3. Total		79,145,327
C. Actuarial present value of expected future member contributions		7,240,560
D. Total Present and Future Resources	$	271,071,542

Actuarial Present Value of Expected Future Benefit Payments and Reserves

A. To retired members and beneficiaries	$	191,212,053
B. To vested terminated members		1,133,682
C. To present active members		
1. Allocated to service rendered prior to valuation date		49,616,611
2. Allocated to service likely to be rendered after valuation date		29,109,196
3. Total		78,725,807
D. Total Actuarial Present Value of Expected Future Benefit Payments	$	271,071,542

Section C

Summary of Benefit Provisions
and Valuation Data

SUMMARY OF PROVISIONS CONSIDERED FOR ACTUARIAL VALUATION (AS OF SEPTEMBER 30, 2015)

A. Ordinances

Plan established under the Code of Ordinances for the City of Sarasota, Florida, Chapter 24, Article II, and Division 3 and was most recently amended under Ordinance No. 15-5149, which was effective September 25, 2015. The Plan is also governed by certain provisions of Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

November 16, 2009 (Restatement); Effective date of most recent amendment: September 25, 2015

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

All actively employed full-time police officers participate in the plan as a condition of employment, exclusive of the Chief of Police who may elect not to participate.

F. Credited Service

Service is measured as the total number of years and fractional parts of years for which a police officer made Member Contributions to the plan. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation/Salary

The total compensation for services rendered to the City as a police officer reportable on the member's W-2 form, plus all amounts deferred under deferred compensation plans, but excluding allowances for clothing and equipment and all lump sum payments paid at the time of retirement or termination except lump sum payments of retroactive pay received pursuant to the provisions of a negotiated union contract. Beginning October 1, 2012, salary shall exclude pay for overtime worked after that date in excess of 300 hours in any calendar year.

H. Final Average Compensation (FAC)

For members eligible for normal retirement as of September 30, 2012, one-twelfth of the average Compensation for the highest 3 years out of the last 10 years of Credited Service prior to termination or retirement.

For members not eligible for normal retirement as of September 30, 2012, one-twelfth of the average Compensation for the highest 5 years out of the last 10 years of Credited Service prior to termination or retirement. In no event shall average Compensation for members employed prior to October 1, 2012 be less than one-twelfth of the average salary of the highest 3 years out of the last 10 years of Credited Service ending September 30, 2012.

I. Normal Retirement

Eligibility: A member may retire at the earlier of:

(1) age 50 and 10 years of Credited Service, or
(2) 25 years of Credited Service regardless of age.

Benefit: 3.0% of FAC multiplied by years of Credited Service. Benefit is limited to 100% of FAC and the provisions of Internal Revenue Code Section 415.

Normal Form of Benefit: For members eligible for normal retirement as of September 30, 2012, a lifetime annuity with automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death. Spousal benefits are payable for life. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's pension amount will be equally shared by each eligible child. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student. Optional forms of benefits are also available.

For members not eligible for normal retirement as of September 30, 2012, a lifetime annuity automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death for benefits attributable to service performed prior to October 1, 2012, and a 10 year certain and life thereafter annuity for benefits attributable to service performed after September 30, 2012. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. Optional forms of benefits are also available.

J. Early Retirement

Not Applicable

K. Delayed Retirement

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

L. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: Accrued Normal Retirement Benefit on the date of disability calculated using the greater of actual Credited Service or 25 years.

Normal Form of Benefit: For members eligible for normal retirement as of September 30, 2012, a lifetime annuity with automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death. Spousal benefits are payable for life. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's pension amount will be equally shared by each eligible child. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student.

For members not eligible for normal retirement as of September 30, 2012, a lifetime annuity automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death for benefits attributable to service performed prior to October 1, 2012, and a 10 year certain and life thereafter annuity for benefits attributable to Service performed after September 30, 2012. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. Optional forms of benefits are also available.

COLA: Each service-connected disabled retiree and surviving beneficiary will receive a 3.2% increase in benefits at the end of February of each year. The adjustment will be prorated if the member retired during the preceding calendar year.

M. Non-Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled is immediately eligible for a disability benefit.

Benefit: 2.5% of FAC multiplied by years of Credited Service up to a maximum of 40 years. In addition, each eligible child is also paid 5% of the member's last monthly salary.

Normal Form of Benefit: For members eligible for normal retirement as of September 30, 2012, a lifetime annuity with automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death. Spousal benefits are payable for life. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's pension amount will be equally shared by each eligible child. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student.

For members not eligible for normal retirement as of September 30, 2012, a lifetime annuity automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death for benefits attributable to service performed prior to October 1, 2012, and a 10 year certain and life thereafter annuity for the benefits attributable to service performed after September 30, 2012. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. Optional forms of benefits are also available.

N. Death in the Line of Duty

Eligibility: All members who die as a result of an act occurring in the performance of service for the City are eligible for survivor benefits regardless of Credited Service.

Benefit: For members eligible for normal retirement as of September 30, 2012, the spouse will be paid 2/3 of the member's accrued Normal Retirement Benefit calculated using the greater of service credited on the date of death or 25 years. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's pension amount will be equally shared by each eligible child.

For members not eligible for normal retirement as of September 30, 2012, the spouse will be paid a 10 year term certain annuity in the amount of the member's accrued Normal Retirement Benefit calculated using the greater of service credited on the date of death or 25 years. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's pension amount will be equally shared by each eligible child.

Normal Form of Benefit: For members eligible for normal retirement as of September 30, 2012, single life annuity paid for the life of the spouse. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student.

For members not eligible for normal retirement as of September 30, 2012, a 10 year term certain annuity payable to the spouse or the member's estate. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student.

O. Other Pre-Retirement Death

Eligibility: All members are eligible for survivor benefits regardless of Credited Service.

Benefit: For members eligible for normal retirement as of September 30, 2012, the spouse will be paid 2/3 of the member's benefit calculated using the following formula: 2.5% of the member's FAC multiplied by years of Credited Service up to a maximum of 40 years. If the member was already eligible for Normal Retirement, the benefit accrual rate utilized will be 3.0% with a maximum benefit of 100% of FAC. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's benefit amount will be equally shared by each eligible child.

For members not eligible for normal retirement as of September 30, 2012, the spouse or member's estate will be paid a 10 year term certain annuity in the amount of the member's benefit calculated using the following formula: 2.5% of the member's FAC multiplied by years of Credited Service up to a maximum of 40 years. If the member was already eligible for Normal Retirement, the benefit accrual rate utilized will be 3.0% with a maximum benefit of 100% of FAC. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary.

Normal Form of Benefit: For members eligible for normal retirement as of September 30, 2012, single life annuity paid for the life of the spouse. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student.

For members not eligible for normal retirement as of September 30, 2012, a 10 year term certain annuity payable to the spouse or the member's estate. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student.

COLA: For members eligible for normal retirement as of September 30, 2012, each surviving beneficiary will receive a 3.2% increase in benefits at the end of February of each year. The adjustment will be prorated if the member retired during the preceding calendar year.

For members not eligible for normal retirement as of September 30, 2012, each surviving beneficiary will receive a 3.2% increase in benefits attributable to service performed prior to October 1, 2012 at the end of each February. For benefits attributable to service performed on or after October 1, 2012, each surviving beneficiary will receive a 1.0% increase in benefits starting after the deceased member would have otherwise attained age 65 at the end of February of each year. The adjustment will be prorated if the member retired or would have reached age 65 during the preceding calendar year.

P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity or the 50%, 66 2/3%, 75% and 100% Joint and Survivor options.

R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins at age 55. Alternatively, members can elect a reduced Early Retirement benefit any time after age 50. If the terminated member dies prior to retirement, payments to beneficiaries under the Normal Form will commence when the member would have reached age 50.

Normal Form of Benefit: For members eligible for normal retirement as of September 30, 2012, a lifetime annuity with automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death. Spousal benefits are payable for life. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. If there is no spouse, 2/3 of the retiree's pension amount will be equally shared by each eligible child. Children's benefits terminate upon death, attainment of age 18, or attainment of age 23 if a full time student. Optional forms of benefits are also available.

For members not eligible for normal retirement as of September 30, 2012, a lifetime annuity automatic continuation of 2/3 of the pension payable to the spouse upon the retiree's death for benefits attributable to service performed prior to October 1, 2012, and a 10 year certain and life thereafter annuity for benefits attributable to service performed after September 30, 2012. During periods when a spouse is paid, each eligible child is also paid 5% of the deceased member's last monthly salary. Optional forms of benefits are also available.

COLA: For members eligible for normal retirement as of September 30, 2012, each retiree and surviving beneficiary will receive a 3.2% increase in benefits at the end of February of each year. The adjustment will be prorated if the member retired during the preceding calendar year.

For members not eligible for normal retirement as of September 30, 2012, each retiree and surviving beneficiary will receive a 3.2% increase in benefits attributable to service performed prior to October 1, 2012 at the end of each February. For benefits attributable to service performed on or after October 1, 2012, each retiree and surviving beneficiary will receive a 1.0% increase in benefits starting after attainment of age 65 at the end of February of each year. The adjustment will be prorated if the member retired or attained age 65 during the preceding calendar year.

S. Refunds

Eligibility: All members terminating employment with less than 10 years of Credited Service are eligible. Optionally, vested members (those with 10 or more years of Credited Service) may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions with interest. The current rate of interest is 5% annually.

T. Member Contributions

8% of Compensation

U. Employer Contributions

The required City contribution is the amount determined by the actuary needed to fund the plan properly according to State laws. The minimum required City contribution is 8% of compensation.

V. Cost of Living Increases

COLA applies to all benefit recipients (Normal Retirement, Early Retirement, Disability, Death and Vested Termination).

COLA: For members eligible for normal retirement as of September 30, 2012, and for all service-connected disabilities regardless of normal retirement eligibility status, each retiree and surviving beneficiary will receive a 3.2% increase in benefits at the end of February of each year. The adjustment will be prorated if the member retired during the preceding calendar year.

For members not eligible for normal retirement as of September 30, 2012, except for service-connected disabilities, each retiree and surviving beneficiary will receive a 3.2% increase in benefits attributable to service performed prior to October 1, 2012 at the end of each February. For benefits attributable to service performed on or after October 1, 2012, each retiree and surviving beneficiary will receive a 1.0% increase in benefits starting after attainment of age 65 at the end of February of each year. The adjustment will be prorated if the member retired or attained age 65 during the preceding calendar year.

W. 13th Check

Not Applicable

X. Deferred Retirement Option Plan

Eligibility: Plan members who meet one of the following criteria are eligible for the DROP:

(1) age 50 with 10 years of Credited Service, or
(2) 25 years of Credited Service regardless of age.

Members who meet eligibility must submit a written election to participate in the DROP.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.

Maximum DROP Period: 60 months

Interest Credited: The member's DROP account is credited at a rate equal to 2.5% per annum compounded quarterly, effective October 1, 2012. This was changed from 6.5% per annum compounded quarterly prior to October 1, 2012.

Normal Form of Benefit: Lump Sum

COLA: For members eligible for normal retirement as of September 30, 2012, each retiree and surviving beneficiary will receive a 3.2% increase in benefits at the end of February of each year. The adjustment will be prorated if the member retired during the preceding calendar year.

For members not eligible for normal retirement as of September 30, 2012, each retiree and surviving beneficiary will receive a 3.2% increase in benefits attributable to service performed prior to October 1, 2012 at the end of each February. For benefits attributable to service performed on or after October 1, 2012, each retiree and surviving beneficiary will receive a 1.0% increase in benefits starting after attainment of age 65 at the end of February of each year. The adjustment will be prorated if the member retired or attained age 65 during the preceding calendar year.

Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Sarasota Police Officers' Pension Fund liability if continued beyond the availability of funding by the current funding source.

Z. Changes from Previous Valuation

The Ordinance has been reinterpreted since the previous valuation such that the Normal Form of payment for benefits attributable to service performed prior to October 1, 2012 is a joint and 2/3 survivor annuity rather than a 10-year certain and life thereafter annuity.

ACCOUNTING INFORMATION SUBMITTED FOR VALUATION

Statement of Plan Assets at Market Value

Item	September 30 2015	September 30 2014
A. Cash and Cash Equivalents (Operating Cash)	$ 1,642,051	$ 1,124,663
B. Receivables:		
1. Member Contributions	$ -	$ -
2. Employer Contributions	-	-
3. State Contributions	-	-
4. Investment Income and Other Receivables	275,687	304,567
5. Prepaid Expenses	16,793	16,450
6. Total Receivables	$ 292,480	$ 321,017
C. Investments		
1. Short Term Investments	$ 2,217,932	$ 3,312,389
2. Domestic Equities	76,996,166	99,262,425
3. International Equities	31,472,337	30,072,727
4. Domestic Fixed Income	55,396,356	39,990,615
5. International Fixed Income	-	-
6. Real Estate	24,931,648	22,134,732
7. Private Equity	-	-
8. Total Investments	$ 191,014,439	$ 194,772,888
D. Liabilities		
1. Benefits Payable	$ -	$ -
2. Accrued Expenses and Other Payables	(137,935)	(190,118)
3. Total Liabilities	$ (137,935)	$ (190,118)
E. Total Market Value of Assets Available for Benefits	$ 192,811,035	$ 196,028,450
F. Reserves		
1. DROP account	$ (3,398,369)	$ (4,908,932)
2. State Contribution Reserve	(843,796)	(843,796)
3. Total Reserves	$ (4,242,165)	$ (5,752,728)
G. Market Value Net of Reserves	$ 188,568,870	$ 190,275,722
H. Allocation of Investments		
1. Short Term Investments	1.2%	1.7%
2. Domestic Equities	40.3%	51.0%
3. International Equities	16.5%	15.4%
4. Domestic Fixed Income	29.0%	20.5%
5. International Fixed Income	0.0%	0.0%
6. Real Estate	13.0%	11.4%
7. Private Equity	0.0%	0.0%
8. Total Investments	100.0%	100.0%

Reconciliation of Plan Assets

Item	September 30 2015	September 30 2014
A. Market Value of Assets at Beginning of Year	$ 196,028,450	$ 181,137,540
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	$ 825,351	$ 760,571
b. Employer Contributions	7,864,404	7,678,913
c. State Contributions	570,973	544,301
d. Purchased Service Credit	-	-
e. Total	$ 9,260,728	$ 8,983,785
2. Investment Income		
a. Interest, Dividends, and Other Income	$ 3,371,511	$ 4,276,694
b. Beginning of Year Market Value Adjustment, per Auditor	$ -	-
c. Net Realized Gains/(Losses)	12,492,919	17,269,987
d. Net Unrealized Gains/(Losses)	(13,548,609)	(1,470,101)
e. Investment Expenses	(1,143,840)	(1,233,689)
f. Net Investment Income	$ 1,171,981	$ 18,842,891
3. Benefits and Refunds		
a. Regular Monthly Benefits (including DROP distributions)	$ (10,716,432)	$ (9,276,095)
b. Refunds	(7,000)	(7,368)
c. DROP Distributions	(2,737,635)	(3,462,469)
d. Increase in State Reserve	-	-
e. Thirteenth Check Distribution	-	-
f. Total	$ (13,461,067)	$ (12,745,932)
4. Administrative Expenses and Miscellaneous Items		
a. Administrative Expenses	$ (189,057)	$ (189,834)
b. Miscellaneous	-	-
c. Total	$ (189,057)	$ (189,834)
5. Transfers	$ -	$ -
C. Total Market Value of Assets Available for Benefits	$ 192,811,035	$ 196,028,450
D. Reserves - DROP Account		
1. DROP account	$ (3,398,369)	$ (4,908,932)
2. State Contribution Reserve	(843,796)	(843,796)
3. Total Reserves	$ (4,242,165)	$ (5,752,728)
E. Market Value Net of Reserves	$ 188,568,870	$ 190,275,722

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	Valuation Date - 09/30/2015	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
A.	Actuarial Value of Assets Beginning of Year	$ 160,731,920	$ 173,318,114				
B.	Market Value End of Year	190,275,722	188,568,870				
C.	Market Value Beginning of Year	174,254,673	190,275,722				
D.	Non-Investment/Administrative Net Cash Flow	(2,821,842)	(2,878,833)				
E.	Investment Income						
	E1. Actual Market Total: B-C-D	18,842,891	1,171,981				
	E2. Assumed Rate of Return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
	E3. Assumed Amount of Return	11,152,470	12,031,509				
	E4. Amount Subject to Phase-In: E1–E3	7,690,421	(10,859,528)				
F.	Phase-In Recognition of Investment Income						
	F1. Current Year: 0.20 x E4	1,538,084	(2,171,906)				
	F2. First Prior Year	2,515,709	1,538,084	(2,171,906)			
	F3. Second Prior Year	2,925,172	2,515,709	1,538,084	(2,171,906)		
	F4. Third Prior Year	(2,592,194)	2,925,172	2,515,709	1,538,084	(2,171,906)	
	F5. Fourth Prior Year	(131,205)	(2,592,194)	2,925,171	2,515,707	1,538,084	(2,171,906)
	F5. Total Phase-Ins	4,255,566	2,214,865	4,807,058	1,881,885	(633,822)	(2,171,906)
G.	**Actuarial Value of Assets End of Year**						
	G1. Preliminary Actuarial Value of Assets End of Year: A+D+E3+F5	173,318,114	184,685,655				
	G2. Upper Corridor Limit: 120%*B	228,330,866	226,282,644				
	G3. Lower Corridor Limit: 80%*B	152,220,578	150,855,096				
	G4. Funding Value End of Year	$ 173,318,114	$ 184,685,655				
H.	Difference between Market & Actuarial Value of Assets	$ 16,957,608	$ 3,883,215				
I.	**Actuarial Rate of Return**	9.7%	8.3%				
J.	**Market Value Rate of Return**	10.9%	0.6%				
K.	**Ratio of Actuarial Value of Assets to Market Value**	91.1%	97.9%				

History of Investment Return Rates

Plan Year Ending September 30 of	Actuarial	Market
2006	9.1	8.5
2007	10.7	16.0
2008	6.4	(11.3)
2009	4.8	(0.5)
2010	4.1	8.9
2011	2.3	(0.5)
2012	2.5	20.2
2013	7.1	15.2
2014	9.7	10.9
2015	8.3	0.6
Average returns:		
Last five years:	5.9	9.0
Last ten years:	6.5	6.4

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

Reconciliation of Deferred Retirement Option Plan (DROP) Accounts		
Value at Beginning of Period	$	4,908,932
Adjustment to Account Balances	+	15,136
Payments Credited to Accounts	+	1,089,729
Investment Earning Credited	+	122,207
Withdrawals from Accounts	-	2,737,635
Value at End of Period		3,398,369

RETIRED PARTICIPANT AND BENEFICIARY DATA (INCLUDING DROP)

HISTORICAL COMPARISON

Year Ended	Added			Removed		Net Increase		End of Period		Expected Deaths	
	No.	Annual Benefits	COLA Adjustment	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Benefits
9/30/1991	0		$ 27,354	0		0	$ 27,354	39	$ 756,326		
9/30/1992	1	$ 35,656	21,930	1	$ 8,919	0	48,667	39	804,993		
9/30/1993	5	130,924	21,658	1	16,233	4	136,349	43	941,342	1.1	$ 20,539
9/30/1994	4	143,886	22,157	1	51,614	3	114,429	46	1,055,771	1.1	22,804
9/30/1995	2	92,935	22,583	0	-	2	115,518	48	1,171,289	1.1	24,349
9/30/1996	6	269,857	22,581	0	-	6	282,438	54	1,453,727	0.9	18,841
9/30/1997	7	323,921	29,660	0	-	7	353,581	61	1,807,308	1.0	21,779
9/30/1998	6	245,946	20,001	1	16,728	5	249,219	66	2,056,527	1.1	25,774
9/30/1999	18	670,206	20,467	1	41,542	17	649,131	83	2,705,658	1.3	30,482
9/30/2000	16	638,424	35,249	0	9,157	16	664,516	99	3,370,174	1.2	31,555
9/30/2001	5	182,670	147,180	1	27,379	4	302,471	103	3,672,645	2.1	54,009
9/30/2002	5	216,776	177,870	1	13,709	4	380,937	107	4,053,582	2.2	60,248
9/30/2003	6	213,719	107,969	1	32,107	5	289,581	112	4,343,163	2.2	64,058
9/30/2004	9	340,512	135,480	0	27,361	9	448,631	121	4,791,794	2.5	79,681
9/30/2005	10	568,937	147,454	4	197,298	6	519,093	127	5,310,888	2.8	89,575
9/30/2006	9	422,948	151,391	3	134,698	6	439,641	133	5,750,529	2.8	94,658
9/30/2007	11	481,953	168,198	2	44,517	9	605,634	142	6,356,163	2.5	88,303
9/30/2008	12	539,279	223,020	5	198,353	7	563,946	149	6,920,109	2.6	97,406
9/30/2009	12	592,348	308,780	1	50,844	11	850,284	160	7,770,393	2.7	104,910
9/30/2010	18	741,229	230,274	3	128,182	15	843,321	175	8,613,714	2.8	115,712
9/30/2011	10	413,278	269,476	2	18,692	8	664,062	183	9,277,776	2.4	100,586
9/30/2012	13	675,549	253,851	0	-	13	929,400	196	10,207,176	2.7	115,421
9/30/2013	11	550,449	297,245	1	4,468	10	843,226	206	11,050,402	2.7	106,841
9/30/2014	4	237,836	327,221	2	113,949	2	451,108	208	11,501,510	2.8	159,805
9/30/2015	**4**	**207,968**	**359,178**	**3**	**181,520**	**1**	**385,626**	**209**	**11,887,136**	**3.5**	**170,099**

RETIRED PARTICIPANTS AND BENEFICIARIES

HISTORICAL COMPARISON

Valuation Date	% Increase in Pension Payroll	No. of Active Participants Per Retired	Pensions as % of Active Partic. Payroll	Average Annual Pensions
9/30/1988	5.5 %	4.1	12.4 %	$ 17,085
9/30/1989	16.4	4.2	13.3	18,321
9/30/1990	4.7	4.6	11.5	18,692
9/30/1991	3.8	4.8	11.3	19,393
9/30/1992	6.4	4.9	10.8	21,892
9/30/1993	16.9	4.4	12.1	20,288
9/30/1994	12.2	4.0	13.3	22,952
9/30/1995	10.9	3.8	14.4	25,463
9/30/1996	24.1	3.4	17.6	26,921
9/30/1997	24.3	3.1	21.1	29,628
9/30/1998	13.8	2.9	22.9	31,160
9/30/1999	31.6	2.2	28.6	32,598
9/30/2000	24.6	1.9	33.3	34,042
9/30/2001	9.0	1.7	37.0	35,657
9/30/2002	10.4	1.7	39.6	37,885
9/30/2003	7.1	1.6	40.3	38,777
9/30/2004	10.3	1.4	45.6	39,602
9/30/2005	10.8	1.3	48.0	41,818
9/30/2006	8.3	1.3	49.4	43,237
9/30/2007	10.5	1.2	52.5	44,762
9/30/2008	8.9	1.1	59.0	46,444
9/30/2009	12.3	0.9	70.3	48,565
9/30/2010	10.9	0.8	81.9	49,221
9/30/2011	7.7	0.8	89.4	50,698
9/30/2012	10.0	0.7	108.4	52,077
9/30/2013	8.3	0.6	119.0	53,643
9/30/2014	4.1	0.6	118.6	55,296
9/30/2015	**3.4**	**0.7**	**115.9**	**56,876**

Valuation Date	Active Members	Vested Term. Members	Participant Valuation Payroll	Average Age	Average Service	Average Pay
9/30/1987	123	3	$ 3,856,108	35.0 yrs.	9.9 yrs.	$ 31,350
9/30/1988	144	3	4,807,385	34.8	9.4	33,385
9/30/1989	161	2	5,244,009	34.9	9.0	32,571
9/30/1990	179	1	6,345,502	35.1	8.8	35,450
9/30/1991	187	1	6,721,295	35.6	9.3	35,943
9/30/1992	192	1	7,432,385	36.3	9.8	38,710
9/30/1993	188	0	7,748,885	37.0	10.5	41,217
9/30/1994	182	1	7,934,717	37.8	11.1	43,597
9/30/1995	184	2	8,148,957	38.4	11.7	44,288
9/30/1996	183	3	8,276,177	38.4	11.6	45,225
9/30/1997	187	3	8,567,549	38.5	11.4	45,816
9/30/1998	190	3	8,999,106	38.5	11.7	47,364
9/30/1999	186	3	9,453,374	37.8	11.0	50,825
9/30/2000	187	4	10,133,296	37.0	10.0	54,189
9/30/2001	180	6	9,926,972	37.6	10.7	55,150
9/30/2002	181	7	10,228,377	37.8	10.7	56,510
9/30/2003	181	6	10,781,332	38.4	11.1	59,565
9/30/2004	173	6	10,502,803	38.8	11.6	60,710
9/30/2005	171	6	11,061,515	39.1	11.4	64,687
9/30/2006	177	7	11,646,108	38.8	11.1	65,797
9/30/2007	175	7	12,112,890	38.6	11.0	69,217
9/30/2008	163	7	11,730,064	39.3	11.6	71,964
9/30/2009	151	6	11,052,554	39.7	12.0	73,196
9/30/2010	144	5	10,512,610	39.3	11.7	73,004
9/30/2011	141	3	10,375,692	39.4	11.6	73,586
9/30/2012	135	3	9,411,970	38.6	10.9	69,718
9/30/2013	131	3	9,282,221	38.4	10.5	70,857
9/30/2014	128	3	9,694,205	39.2	11.2	75,736
9/30/2015	**139**	**4**	**10,256,818**	**38.7**	**10.4**	**73,790**

Number Added To and Removed from Active Participation

Year Ended	Number Added During Year A	Number Added During Year E *	Normal Retirement and DROP A	Normal Retirement and DROP E	Disability Retirement A	Disability Retirement E	Died In Service A	Died In Service E	Terminations Vested A	Terminations Other A	Terminations Totals A	Terminations Totals E	Active Members End of Year
9/30/1994	4	12	4	1	1	0	0	0	2	5	7	7	182
9/30/1995	5	3	2	1	0	1	0	0	0	1	1	6	184
9/30/1996	14	15	6	2	0	0	0	0	1	8	9	6	183
9/30/1997	14	10	5	3	2	1	0	0	1	2	3	6	187
9/30/1998	12	9	2	3	4	0	0	0	2	1	3	6	190
9/30/1999	14	18	14	5	3	1	0	0	0	1	1	7	186
9/30/2000	18	17	12	5	1	0	1	0	2	1	3	7	187
9/30/2001	6	13	4	1	1	1	0	0	2	6	8	8	180
9/30/2002	13	12	5	3	0	1	0	0	1	6	7	7	181
9/30/2003	10	10	4	6	1	1	1	0	0	4	4	3	181
9/30/2004	3	11	7	7	1	1	0	0	0	3	3	4	173
9/30/2005	10	12	8	6	2	1	0	0	0	2	2	3	171
9/30/2006	16	10	5	4	2	1	0	0	1	2	3	3	177
9/30/2007	14	16	8	9	1	1	0	0	0	7	7	4	175
9/30/2008	1	13	7	8	1	1	0	0	1	4	5	4	163
9/30/2009	0	12	9	8	2	1	0	0	0	1	1	3	151
9/30/2010	7	14	11	7	0	1	1	0	0	2	2	2	144
9/30/2011	10	13	6	7	1	1	0	0	0	6	6	2	141
9/30/2012	13	19	10	3	3	1	0	0	0	6	6	3	135
9/30/2013	9	13	9	5	0	1	0	0	1	3	4	3	131
9/30/2014	1	4	3	4	0	1	0	0	1	0	1	3	128
9/30/2015	22	11	2	4	1	1	0	0	2	6	8	2	139
9/30/2016				10		1		0				4	
22 Yr Totals 1994 - 2015	216	267	143	102	27	18	3	0	17	77	94	99	

*A = actual number; E = expected number; * Balancing item*

DISTRIBUTION OF AGE & SALARY AMONG ACTIVE PARTICIPANTS

	Years of Service to Valuation Date											
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30+	**Totals**
20-24 NO.	5	0	0	0	0	0	0	0	0	0	0	5
TOT PAY	202,919	0	0	0	0	0	0	0	0	0	0	202,919
AVG PAY	40,584	0	0	0	0	0	0	0	0	0	0	40,584
25-29 NO.	8	0	4	3	3	1	0	0	0	0	0	19
TOT PAY	337,890	0	229,199	194,501	203,878	69,586	0	0	0	0	0	1,035,054
AVG PAY	42,236	0	57,300	64,834	67,959	69,586	0	0	0	0	0	54,477
30-34 NO.	4	0	1	7	2	9	3	0	0	0	0	26
TOT PAY	181,783	0	60,076	441,307	140,119	667,524	221,007	0	0	0	0	1,711,816
AVG PAY	45,446	0	60,076	63,044	70,060	74,169	73,669	0	0	0	0	65,839
35-39 NO.	1	0	2	0	0	4	7	3	0	0	0	17
TOT PAY	41,998	0	116,781	0	0	302,411	600,891	247,796	0	0	0	1,309,877
AVG PAY	41,998	0	58,391	0	0	75,603	85,842	82,599	0	0	0	77,052
40-44 NO.	0	0	0	0	2	6	8	16	1	0	0	33
TOT PAY	0	0	0	0	105,905	435,379	630,185	1,346,653	88,246	0	0	2,606,368
AVG PAY	0	0	0	0	52,952	72,563	78,773	84,166	88,246	0	0	78,981
45-49 NO.	4	0	0	0	0	0	7	5	6	2	0	24
TOT PAY	175,455	0	0	0	0	0	532,638	408,369	587,837	177,316	0	1,881,615
AVG PAY	43,864	0	0	0	0	0	76,091	81,674	97,973	88,658	0	78,401
50-54 NO.	0	0	0	0	0	2	1	6	3	2	0	14
TOT PAY	0	0	0	0	0	143,861	69,811	474,185	252,968	189,861	0	1,130,686
AVG PAY	0	0	0	0	0	71,930	69,811	79,031	84,323	94,930	0	80,763
55+NO.	0	0	0	0	0	0	1	0	0	0	0	1
TOT PAY	0	0	0	0	0	0	83,430	0	0	0	0	83,430
AVG PAY	0	0	0	0	0	0	83,430	0	0	0	0	0
TOT NO.	22	0	7	10	7	22	27	30	10	4	0	139
TOT AMT	940,045	0	406,056	635,808	449,902	1,618,761	2,137,962	2,477,003	929,051	367,177	0	9,961,765
AVG AMT	42,729	0	58,008	63,581	64,272	73,580	79,184	82,567	92,905	91,794	0	71,667

SCHEDULE OF NON-ACTIVE PARTICIPANTS DATA

	Terminated Vested		Disabled		Retired		Deceased with Beneficiary		Total	
Age	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-
35-39	2	47,506	-	-	-	-	-	-	2	47,506
40-44	1	40,386	3	160,419	-	-	-	-	4	200,805
45-49	1	13,405	7	255,799	7	406,239	3	38,132	18	713,575
50-54	-	-	7	399,379	36	2,163,229	-	-	43	2,562,608
55-59	-	-	4	206,479	34	2,211,157	2	68,528	40	2,486,164
60-64	-	-	5	267,317	30	1,996,178	-	-	35	2,263,495
65-69	-	-	4	149,648	32	1,910,000	-	-	36	2,059,648
70-74	-	-	4	112,641	12	792,625	-	-	16	905,266
75-79	-	-	1	14,398	7	292,787	1	25,147	9	332,332
80-84	-	-	1	46,855	2	45,154	-	-	3	92,009
85-89	-	-	1	46,855	4	197,447	-	-	5	244,302
90-94	-	-	-	-	2	80,721	-	-	2	80,721
95-99	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-
Total	4	101,297	37	1,659,790	166	10,095,537	6	131,807	213	11,988,431
Average Age		42		59		62		56		61
Liability		1,133,682		25,576,065		163,781,769		1,854,219		192,345,735

Section D

The Actuarial Valuation Process
Summary of Actuarial Assumptions
and Definitions of Technical Terms

THE ACTUARIAL VALUATION PROCESS

An actuarial valuation is the mathematical process by which a pension plan contribution requirement is determined and its actuarial condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

A. ***Covered Person Data***, furnished by the plan administrator including:
- Retired participants and beneficiaries now receiving benefits
- Former participants with vested benefits not yet payable
- Active participants

B. + ***Asset Data*** (cash & investments), furnished by the plan administrator

C. + ***Fund Description Data***, furnished by the plan administrator

D. + ***Assumptions about various future activities of the plan*** (risk elements)

E. + ***The Actuarial Cost Method*** for allocating costs to time periods and determining the long-term planned pattern for employer contributions

F. + ***Mathematically combining the Data, the Estimates of Future Activities, and the Cost Method***

G. = Determination of:

Employer Contribution Requirement and Actuarial Condition

Items A, B and C constitute the current "knowns" about the Fund. A good deal of plan activity which will result in benefit payments has yet to occur. Accordingly, certain assumptions must be made about future plan activity. These assumptions (Item D) may be classified as demographic or fiscal. Demographic assumptions include future mortality rates, disability rates, rates of pre-retirement withdrawal from employment, and retirement ages. Fiscal assumptions consist of future salary increases and rates of investment return.

Demographic assumptions are generally selected on the basis of the Fund's historical activity, modified for expected future differences. Past activity of plans which are similar in nature to the plan being valued may be utilized if plan data or activities are insufficient to be reliable.

Fiscal assumptions, on the other hand, do not lend themselves to prediction on the basis of historical activity -- the reason being that both salary increases and investment return are impacted by inflation. Inflation defies reliable prediction. Fiscal assumptions are generally selected on the basis of what would be expected to occur in an inflation-free environment and then both are increased by some provision for long-term inflation.

This is a case where two wrongs may make a right. If inflation is higher than expected it will probably result in actual rates of salary increase and investment return which exceed the assumed rates. Salaries increasing faster than expected result in unexpected costs. Investment return exceeding the assumed rate result in unanticipated assets. To a large degree the additional assets will offset the additional cost over the long-term.

Once items A, B, C and D are available, the actuarial valuation process begins. The first step is to determine the plan's ***total actuarial present value*** for individuals in each of the 3 covered person categories.

Retired participants now receiving monthly payments;
Vested terminated participants not yet at retirement age;
Active participants.

The actuarial present value is the value today after taking into account the probabilities of payment and the effect of time, of plan promises to pay benefits in the future on the basis of both service already completed and projected future service.

The total actuarial present value is allocated between projected future service and completed service by the actuarial cost method (Item E) -- the ***individual entry age*** method being utilized for this valuation. The portion of the total actuarial present value allocated to projected future service is the ***actuarial present value of future normal costs*** **--** normal cost being the series of annual costs, from entry age to retirement age, which will accumulate to the actuarial present value of the individual's benefit at the time of retirement or death. The remainder of the total actuarial present value is the ***actuarial accrued liability***.

At this stage determination has been made of:

1. The total actuarial present value;
2. The actuarial present value of future normal cost; and
3. The actuarial accrued liability.

In the typical plan, the actuarial accrued liability may not be covered by the plan's accrued assets -- leaving an ***unfunded actuarial accrued liability***.

The next step in the valuation process is a determination of the contribution rate (Item G) required to support Fund benefits in accordance with the funding objective (page B-1).

The contribution rate is determined in two basic components:

1. The normal cost component; and

2. The component which will finance (pay off) the unfunded actuarial accrued liability over the periods indicated on page B-8.

Active participant covered payroll was projected to increase 0.00% a year in determining the level percent of payroll component for the unfunded actuarial accrued liability – Typically, this rate would be equal to our assumed inflation rate of 2.5%. However, under State Statutes, the rate is limited to the average annual payroll growth over the last 10 years, which was less than 0.00%. The characteristics of this method are shown on page D-4.

The actuarial estimates regarding the Inflation rate, Real Investment Return rate, and Salary Increase rates are used, in combination with the other estimates, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish rates of contribution which are expected to remain relatively level as a percent of total valuation payroll. The interest for the valuation was 7.00% a year compounded annually. It is composed of inflation and real investment return.

INFLATION RATE. 2.50% per annum, compounded annually, effective 9/30/12. This is the rate at which growth in the supply of money and credit is estimated to exceed growth in the supply of goods and services. It may be thought of as the rate of depreciation of the purchasing power of the dollar. There are a number of indices for measuring the inflation rate. The recent inflation rate as measured by the Consumer Price Index is shown in a table which follows.

REAL INVESTMENT RETURN RATE. 4.50% per annum, compounded annually, net of investment expenses, effective 9/30/12. This is the rate of return estimated to be produced by investing a pool of assets in an inflation-free environment. Recent real rates of investment return on the funding value of assets are shown in a table which follows.

SALARY INCREASE RATES. Participant salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) seniority and longevity, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) promotion and competition from other employers for personnel. A schedule of rates of increases in individual salaries for sample ages follows:

	Annual Rates of Salary Increase for Sample Years of Service					
Attributable to:	**1**	**2 to 4**	**5 to 10**	**11 to 15**	**16 to 20**	**21 to 25**
Seniority & longevity	8.2%	1.5%	1.2%	1.0%	0.8%	0.4%
General Increase in Wage Level Due to:						
Inflation	2.5	2.5	2.5	2.5	2.5	2.5
Other causes	2.0	2.0	2.0	2.0	2.0	2.0
Total	**12.7%**	**6.0%**	**5.7%**	**5.5%**	**5.3%**	**4.9%**

The valuation is based on the number of active participants remaining constant, and the total payroll for the group increasing at the rate of 2.5% a year (the estimated increase in wage levels due to inflation).

A schedule of recent salary change experience is shown in the following table:

Year Ended 9/30	Rate of Inflation		Rate of Inv. Return		Real Rate of Inv. Return		Salary Increases	
	A	E	A	E	A	E	A	E
1992	2.9 %	5.0 %	8.9 %	8.0 %	6.0 %	3.0 %	10.3 %	6.3 %
1993	2.7	5.0	9.4	8.0	6.7	3.0	6.8	6.2
1994	3.0	5.0	7.4	8.0	4.4	3.0	6.6	5.9
1995	2.6	4.5	11.2	8.0	8.6	3.5	3.1	5.5
1996	3.0	4.5	12.9	8.0	9.9	3.5	6.0	5.3
1997	2.2	4.5	17.2	8.0	15.0	3.5	5.8	5.3
1998	1.5	4.5	16.4	8.0	14.9	3.5	7.0	5.3
1999	2.6	4.5	14.8	8.0	12.2	3.5	6.7	5.9
2000	3.5	4.5	12.5	8.0	9.0	3.5	11.4	5.7
2001	2.6	4.5	4.4	8.0	1.8	3.5	2.4	5.8
2002	1.5	4.5	0.4	8.0	(1.1)	3.5	4.4	5.7
2003	2.3	3.1	(0.7)	8.0	(3.0)	4.9	6.1	5.9
2004	2.5	3.1	0.0	8.0	(2.5)	4.9	2.8	5.9
2005	4.7	3.1	9.0	8.0	4.3	4.9	12.7	5.7
2006	2.1	3.1	9.1	8.0	7.0	4.9	4.5	5.7
2007	2.8	3.1	10.7	8.0	7.9	4.9	7.6	5.7
2008	4.9	3.1	6.4	8.0	1.5	4.9	4.4	5.7
2009	(1.3)	3.1	4.8	8.0	6.1	4.9	3.1	5.7
2010	1.1	3.1	4.1	8.0	3.0	4.9	4.2	5.5
2011	3.9	3.1	2.3	8.0	(1.6)	4.9	4.4	5.5
2012	2.2	3.1	2.5	7.8	0.3	4.7	(0.5)	5.6
2013	1.2	2.5	7.1	7.0	5.9	4.5	5.0	5.5
2014	1.7	2.5	9.7	7.0	8.0	4.5	7.8	5.7
2015	0.0	2.5	8.3	7.0	8.3	4.5	5.0	5.6
Averages	2.3	3.7	7.8	7.9	5.4	4.1	5.7	5.7

The mortality table was the RP-2000 Combined Healthy Participant Mortality Tables for males and females. A provision for future mortality improvements is being made from the year 2000 to all future years using Scale AA. The mortality table is used to measure the probabilities of participants dying before retirement and the probabilities of each benefit payment being made after retirement. Seventy-five percent of pre-retirement deaths were assumed to be service connected.

Sample Attained Ages (in 2015)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.16 %	0.13 %	34.35	35.68
55	0.27	0.24	29.23	30.71
60	0.53	0.47	24.29	25.93
65	1.03	0.90	19.68	21.44
70	1.77	1.55	15.48	17.32
75	3.06	2.49	11.68	13.59
80	5.54	4.13	8.45	10.28

RATES OF SEPARATION FROM ACTIVE MEMBERSHIP. The rates do not apply to participants eligible to retire and do not include separation on account of death or disability. Separation rates are used to measure the probabilities of participants remaining in employment.

Sample Ages	Years of Service	Percent Separating Within Next Year
ALL	0	9.00%
	1	6.00
	2	4.80
	3	4.20
	4	3.60
25	5 & Over	3.60
30		3.06
35		1.62
40		0.96
45		0.66
50		0.60
55		0.60
60		0.60

RATES OF DISABILITY. Disability rates measure the probabilities of active participants becoming disabled.

Sample Ages	Percent Becoming Disabled Within Next Year
20	0.25%
25	0.26
30	0.32
35	0.40
40	0.53
45	0.89
50	1.75
55	2.71

Seventy-five percent of disabilities were assumed to be service connected.

RATES OF RETIREMENT. Rates of retirement are used to measure the probabilities of an eligible member retiring during the next year.

Normal Retirement Age	80%
Each of the next 4 years	20
Fifth year	100

EXPENSES. Non-investment related expenses are included as an additional employer contribution to provide for reimbursement of these expenses. Such expenses are assumed to be the amount paid in the preceding year.

ACTIVE MEMBER GROUP SIZE. The valuation was based on a constant active member group size.

MARITAL STATUS. Ninety percent of active participants who meet the age and service requirements for pre-retirement survivor benefits are estimated to be married. Female spouses are assumed to be 3 years younger than the male participant. Male spouses are assumed to be 3 years older than the female participant.

COST OF LIVING ADJUSTMENT. For members eligible for normal retirement as of September 30, 2012, and all service-connected disabilities, each retiree and surviving beneficiary will receive a 3.2% increase in benefits at the end of February of each year. The adjustment will be prorated if the member retired during the preceding calendar year. For members not eligible for normal retirement as of September 30, 2012, each retiree and surviving beneficiary will receive a 3.2% increase in benefits attributable to service performed prior to October 1, 2012 at the end of each February. For benefits attributable to service performed on or after October 1, 2012, each retiree and surviving beneficiary will receive a 1.0% increase in benefits starting after attainment of age 65 at the end of February of each year. The adjustment will be prorated if the member retired or attained age 65 during the preceding calendar year.

ASSET VALUATION METHOD. Smoothed market value where the difference between actual and expected returns is recognized over five years.

DEFINITIONS OF TECHNICAL TERMS

ACCRUED SERVICE. Service credited under the system which was rendered before the date of the actuarial valuation.

ACTUARIAL ACCRUED LIABILITY. The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as "accrued liability" or "past service liability."

ACTUARIAL ASSUMPTIONS. Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement estimates (rates of mortality, disability, turn-over and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic estimates (salary increases and investment income) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.

ACTUARIAL COST METHOD. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal costs and actuarial accrued liability. Sometimes referred to as the "actuarial valuation cost method."

ACTUARIAL EQUIVALENT. A single amount or series of amounts of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

ACTUARIAL PRESENT VALUE. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as "present value."

AMORTIZATION. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying it off with a lump sum payment.

EXPERIENCE GAIN (LOSS). The difference between actual actuarial costs and assumed actuarial costs -- during the period between two valuation dates.

FUNDING VALUE OF ASSETS. The value of assets derived by spreading the difference between actual and expected returns in equal dollar installments over five years. This treatment removes the timing of investment activities from the valuation process.

NORMAL COST. The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as "current service cost."

UNFUNDED ACTUARIAL ACCRUED LIABILITY. The difference between actuarial accrued liability and the actuarial value of system assets. Sometimes referred to as "unfunded past service liability," "unfunded accrued liability" or "unfunded supplemental present value."

Most retirement systems have unfunded actuarial accrued liability. It arises each time new benefits are added and each time an experience loss is realized.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to control the amount of unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).

Section E

The Actuarial Accrued Liability and Certain Other Disclosures Required by Statement No. 67 of the Governmental Accounting Standards Board

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

Fiscal year ending September 30,	2016*	2015	2014
Total pension liability			
Service Cost	$ 3,628,723	$ 3,290,606	$ 3,150,996
Interest	17,058,091	16,362,460	15,888,805
Benefit Changes	-	3,008,519	-
Difference between actual & expected experience	(2,051,254)	58,566	(55,573)
Assumption Changes	-	-	-
Benefit Payments	(12,405,030)	(13,454,067)	(12,738,564)
Refunds	(31,430)	(7,000)	(7,368)
Other (Adjustments)	-	-	-
Net Change in Total Pension Liability	6,199,100	9,259,084	6,238,296
Total Pension Liability - Beginning	248,121,571	238,862,487	232,624,191
Total Pension Liability - Ending (a)	$ 254,320,671	$ 248,121,571	$ 238,862,487
Plan Fiduciary Net Position			
Contributions - Employer (From City)	$ 8,032,446	$ 7,864,404	$ 7,678,913
Contributions - Employer (From State)	570,973	570,973	544,301
Contributions - Non-Employer Contributing Entity	-	-	-
Contributions - Member	820,545	825,351	760,571
Net Investment Income	13,384,718	1,171,981	18,842,891
Benefit Payments	(12,405,030)	(13,454,067)	(12,738,564)
Refunds	(31,430)	(7,000)	(7,368)
Administrative Expense	(189,057)	(189,057)	(189,834)
Other	-	-	-
Net Change in Plan Fiduciary Net Position	10,183,165	(3,217,415)	14,890,910
Plan Fiduciary Net Position - Beginning	192,811,035	196,028,450	181,137,540
Plan Fiduciary Net Position - Ending (b)	$ 202,994,200	$ 192,811,035	$ 196,028,450
Net Pension Liability - Ending (a) - (b)	51,326,471	55,310,536	42,834,037
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	79.82 %	77.71 %	82.07 %
Covered Employee Payroll	$ 12,500,000	$ 12,301,962	$ 12,654,736
Net Pension Liability as a Percentage of Covered Employee Payroll	410.61 %	449.61 %	338.48 %

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

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

FY Ending September 30,	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Plan Fiduciary Net Position as a % of Total Pension Liability	Covered Employee Payroll	Net Pension Liability as a % of Covered Employee Payroll
2014	$ 238,862,487	$ 196,028,450	$ 42,834,037	82.07%	$ 12,654,736	338.48%
2015	248,121,571	192,811,035	55,310,536	77.71%	12,301,962	449.61%
2016*	254,320,671	202,994,200	51,326,471	79.82%	12,500,000	410.61%

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

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

Valuation Date:	September 30, 2015
Measurement Date:	September 30, 2016

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Inflation	2.5%
Salary Increases	4.9% to 12.7% depending on service, including inflation
Investment Rate of Return	7.0%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	RP-2000 Combined Healthy Participant Mortality Tables for males and females with future mortality improvements projected from 2000 to all future years by using Scale AA

Other Information:

Notes	See Discussion of Valuation Results on page 1.

SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

FY Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Actual Contribution as a % of Covered Employee Payroll
2014	$ 8,207,512	$ 8,223,214	$ (15,702)	$ 12,654,736	64.98%
2015	8,415,647	8,435,377	(19,730)	12,301,962	68.57%
2016*	8,603,419	8,603,419	-	12,500,000	68.83%

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

NOTES TO SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

Valuation Date:	September 30, 2014
Notes	Actuarially determined contribution rates are calculated as of September 30, which is two year(s) prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	23 years (Single amortziation period)
Asset Valuation Method	5-year smoothed market
Inflation	2.5%
Salary Increases	4.9% to 12.7% depending on service, including inflation
Investment Rate of Return	7.0%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	RP-2000 Combined Healthy Participant Mortality Tables for males and females with future mortality improvements projected from 2000 to all future years by using Scale AA

Other Information:

Notes	Please see page 1 of the September 30, 2014 Actuarial Valuation, as well as the Actuarial Impact Statement dated September 14, 2015.

SINGLE DISCOUNT RATE AND SENSITIVITY ANALYSIS
GASB Statement No. 67

A single discount rate of 7.00% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.00%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (7.00%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.00%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption*

1% Decrease 6.00%	Current Single Discount Rate Assumption 7.00%	1% Increase 8.00%
$ 85,443,017	$ 51,326,471	$ 23,484,806

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

Section F

Summary of Valuation Results in State Format

SUMMARY OF VALUATION RESULTS IN STATE FORMAT - ($ AMOUNTS IN THOUSANDS)

		September 30, 2015	September 30, 2014
(a) Participant Data			
(i) Active participants	- number	139	128
	- annual payroll	$10,257	$9,694
(ii) Retired participants & beneficiaries (excl. disability)			
	- number	172	172
	- annualized benefit payroll	$10,227	$9,945
(iii) Disabled participants & beneficiaries			
	- number	37	36
	- annualized benefit payroll	$1,660	$1,557
(iv) Terminated vested participants			
	- number	4	3
	- annualized benefit payroll	$101	$65
(b) Assets			
(i) Funding value		$184,686	$173,318
(ii) Market value		188,569	190,276
(c) Actuarial Liabilities			
(i) Actuarial present value of active partic. benefits			
normal & early retirement		67,914	65,190
termination benefits - pensions		1,779	1,833
disability retirement		8,465	8,056
survivor benefits (pre-retirement)		392	401
termination benefits - refunds		176	158
Total		78,726	75,638
(ii) Actuarial present value of terminated vested participant benefits		1,134	905
(iii) Actuarial present value of retired partic. & beneficiary:			
normal/early retirement & survivors (excl. disability)		165,636	163,148
disability retirement & survivors		25,576	24,240
Total		191,212	187,388
(iv) Total actuarial present value of future benefit payments		271,072	263,931
(v) Payables		0	0
(vi) Actuarial accrued liability		241,962	235,816
(vii) Unfunded actuarial accrued liability (1)		57,276	62,498

(1) Refer to page B-8 for requested detail.

	September 30, 2015	September 30, 2014
(d) Actuarial Present Value of Accrued Benefits (calculated in accordance with FASB Statement 35)		
(i) Vested accrued benefits		
Retired participants and beneficiaries	$ 191,212	$ 186,664
Terminated participants	1,134	905
Active participants (includes non-forfeitable accum. partic. Contributions of $10,021 and $9,579)	40,551	35,852
Total	232,897	223,421
(ii) Non-vested accrued benefits	4,845	4,712
(iii) Total actuarial present value of acrued benefits	237,742	228,133
(iv) Actuarial p.v. of accrued benefits at beginning of year	228,133	221,978
(v) Changes attributable to:		
Amendments	3,331	0
Assumption change	0	0
Operation of decrements	18,229	17,771
Benefit payments (net basis)	(11,951)	(11,616)
(vi) Net Change	9,609	6,155
(vii) Actuarial p.v. of accrued benefits at end of year	237,742	228,133
(e) Plan costs for fiscal years beginning October 1, 2016 and October 1, 2015*		
(i) Normal costs		
Service Pensions	26.51 %	26.87 %
Disability pensions	6.94	6.81
Survivor pensions (pre-retirement)	0.32	0.33
Deferred service pensions	1.18	1.21
Refunds of member contributions	0.43	0.43
Total normal cost	35.38	35.65
(ii) Payment to amortize unfunded act. accr. liab.	48.10	54.27
(iii) Administrative expenses	1.84	1.96
(iv) Amount to be paid by participants	8.00	8.00
(v) Expected plan sponsor contribution		
% of payroll	77.32 %	83.88 %
Estimated dollars (minimum of 8% of payroll)	$ 8,129	$ 8,335

* Plan costs are displayed as a percentage of covered payroll. The covered payroll for the fiscal years beginning 10/1/2015 and 10/1/2014 is $10,256,818 and $9,694,205, respectively. The estimated covered payroll for the fiscal year beginning 10/1/2016 is $10,513,238.

			September 30, 2015	September 30, 2014
(f) Past Contributions (fiscal year ending 9/30/15 & 14)				
(i)	Required minimum:	Fund sponsor (including Chapter 185)	$ 8,416	$ 8,208
		Participants	785	761
		Total	9,201	8,969
(ii)	Actual:	Fund sponsor	7,864	7,679
		Chapter 185 taxes	571	544
		Participants	785	761
		Total	9,220	8,984
(g) Net Experience Gain (Loss)			3,708	3,806
(h) Other Disclosures				
(i)	Present value of active member future salaries			
	from attained age		$ 90,507	$ 86,292
	from entry age		Not applicable to individual EANC method	
(ii)	Present value of active member future contributions			
	from attained age		$ 7,241	$ 6,903
	from entry age		Not applicable to individual EANC method	

RECONCILIATION OF PARTICIPANTS
FOR THE PLAN YEAR ENDED SEPTEMBER 30, 2015

				Pension Recipients	
	Active Participants	Vested Terminated Participants	DROP	Service Retirees & Beneficiaries	Disability Retirees
No. at Start of Year	128	3	28	144	36
Increase (Decrease) From					
DROP	(2)		2	7	
Service Retirement	0	(1)	(7)		
Disability Retirement	(1)				1
Deaths	0			(3)	
Other Pension Terminations	(6)				
Vested Terminations	(2)	2		1	
Non-Vested Terminations	0				
New Entrants/Rehires	22				
No. End of Year	139	4	23	149	37