# RETIREMENT PLAN FOR THE GENERAL EMPLOYEES OF THE CITY OF CLERMONT, FLORIDA

ACTUARIAL VALUATION AS OF OCTOBER 1, 2016

DETERMINES THE CONTRIBUTION FOR THE 2016/17 FISCAL YEAR



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January 22, 2017

#### Introduction

This report presents the results of the October 1, 2016 actuarial valuation for the Retirement Plan for the General Employees of the City of Clermont, Florida. The report is based on the participant data and asset information provided by the pension plan administrator and, except for a cursory review for reasonableness including a comparison to the data provided for the previous valuation, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2016 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2016/17 plan year. In addition, this report provides a projection of the long-term funding requirements of the plan, statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an <u>estimate</u> of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table IV-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment returns would have on the normal cost rate.

#### Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the 2016/17 plan year. The minimum required contribution is \$8,767, which is \$8,767 greater than the minimum required contribution that was developed in the prior valuation.

The normal cost rate is \$8,193. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate increased by \$513 due to investment losses, increased by another \$7,054 due to demographic experience, and increased by \$626 due to the assumption change that is discussed below. The market value of assets earned 0.62% during the 2014/15 plan year and 8.29% during the 2015/16 plan year, whereas a 7.00% annual investment return was required to maintain a stable contribution rate.



Chapter 112, Florida Statutes, sets forth the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City must contribute an amount equal to the annual normal cost of the plan plus an adjustment as necessary to reflect interest on any delayed payment of the contribution beyond the valuation date. On this basis, the City's 2016/17 minimum required contribution will be equal to \$8,767. Furthermore, if an actuarial valuation is not prepared as of October 1, 2017, then the \$8,767 contribution amount will also apply for the 2017/18 plan year.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is \$408,134. As illustrated in Table I-A, current assets are sufficient to cover \$358,184 of this amount and the 2016/17 employer contribution will cover \$8,767 of this amount, leaving \$41,183 to be covered by future employer contributions. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

#### Contents of the Report

Tables I-D through I-G provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-F provide information concerning the assets of the trust fund. Tables III-A through III-D provide statistical information concerning the plan's participant population. In particular, Table III-D gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables IV-A and IV-B provide a summary of the actuarial assumptions and methods that are used to value the plan's benefits as of October 1, 2016, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

#### Assumption Change

Pursuant to the requirements of State law, the mortality basis has been changed from a 2015 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Combined Mortality Table. This change increased the minimum required contribution for the 2016/17 plan year by \$670.

#### Certification

This actuarial valuation was prepared by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of 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 which may require a material change in plan costs or required contribution rates have been taken into account in the valuation.



For the firm,

Chall J. Cm

Charles T. Carr Consulting Actuary Southern Actuarial Services Company, Inc.

Enrolled Actuary No. 14-04927

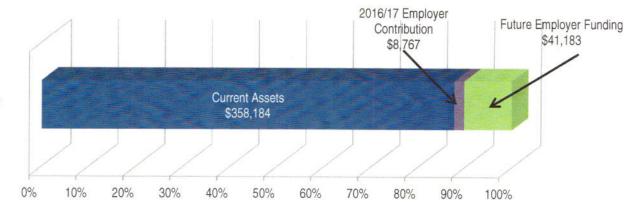
The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



# Minimum Required Contribution

### Table I-A

**Funding Source** 



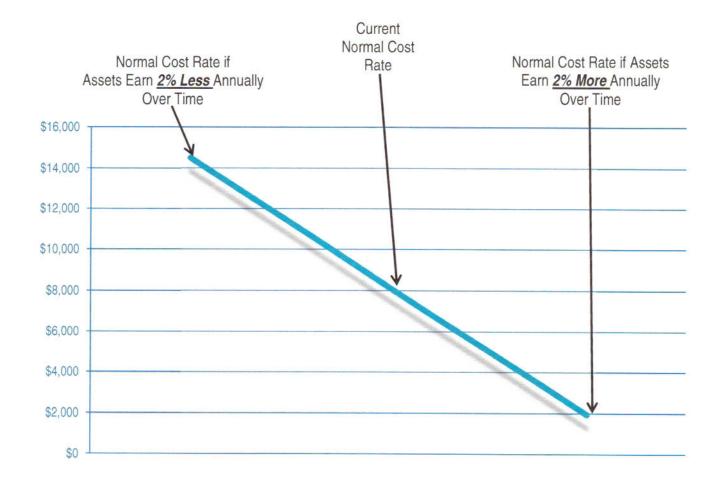
#### For the 2016/17 Plan Year

Present Value of Future Benefits	\$388,699
Present Value of Future Administrative Expenses	\$19,435
Actuarial Value of Assets	(\$358,184)
Present Value of Future Employee Contributions	\$0
Present Value of Future Normal Costs	\$49,950
Present Value of Future Life	÷ 42.6774
Normal Cost Rate	= \$1,170
Expected Lives	x 7.0000
Normal Cost	\$8,193
Adjustment to Reflect an End-of-Year Employer Contribution	\$574
Minimum Required Contribution	\$8,767



### Sensitivity Analysis

Table I-B



The line above illustrates the sensitivity of the normal cost rate to changes in the long-term investment return.



# Gain and Loss Analysis

Table I-C

Previous normal cost rate	\$0
Increase (decrease) due to investment gains and losses Increase (decrease) due to demographic experience	\$513 \$7,054
Increase (decrease) due to plan amendments Increase (decrease) due to actuarial assumption changes Increase (decrease) due to actuarial method changes	\$0 \$626 \$0
Current normal cost rate	\$8,193



### Present Value of Future Benefits

Table I-D

	Old Assumptions	Old Assumptions	New Assumptions
	w/o Amendment	w/ Amendment	w/ Amendment
Actively Employed Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$273,122	\$273,122	\$293,168
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$88,568	\$88,568	\$95,531
DROP participants	\$0	\$0	\$0
Sub-total	\$361,690	\$361,690	\$388,699
Grand Total	<u>\$361,690</u>	\$361,690	\$388,699
Present Value of Future Payroll	\$0	\$0	\$0
Present Value of Future Employee Contribs.	\$0	\$0	\$0
Present Value of Future Employer Contribs.	\$21,591	\$21,591	\$49,950
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# Present Value of Accrued Benefits

Table I-E

	Old Assumptions	Old Assumptions	New Assumptions
	w/o Amendment	w/ Amendment	w/ Amendment
Actively Employed Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$273,122	\$273,122	\$293,168
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$88,568	\$88,568	\$95,531
DROP participants	\$0	\$0	\$0
Sub-total	\$361,690	\$361,690	\$388,699
Grand Total	<u>\$361,690</u>	<u>\$361,690</u>	\$388,699
Funded Percentage	99.03%	99.03%	92.15%



### Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$273,122	\$273,122	\$293,168
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$88,568	\$88,568	\$95,531
DROP participants	\$0	\$0	\$0
Sub-total	\$361,690	\$361,690	\$388,699
Grand Total	\$361,690	\$361,690	\$388,699



# Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$273,122	\$273,122	\$293,168
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$88,568	\$88,568	\$95,531
DROP participants	\$0	\$0	\$0
Sub-total	\$361,690	\$361,690	\$388,699
Grand Total	\$361,690	<u>\$361,690</u>	\$388,699



### Actuarial Value of Assets

Table II-A

Market Value o	f Assets as	of October 1	, 2016	\$358,184
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Minus advance employer contributions \$0

Actuarial Value of Assets as of October 1, 2016 \$358,184

Historical Astronial	Value of Assets
Historical Actuarial	value of Assets
October 1, 2007	\$822,401
October 1, 2008	\$646,405
October 1, 2009	\$573,379
October 1, 2010	\$546,940
October 1, 2011	\$488,225
October 1, 2012	\$499,902
October 1, 2013	\$487,714
October 1, 2014	\$458,926
October 1, 2015	\$391,547
October 1, 2016	\$358,184

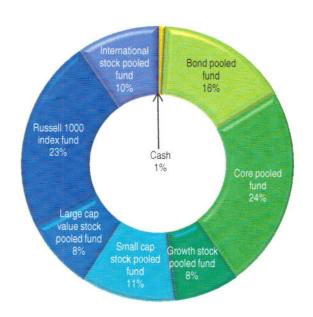


### Market Value of Assets

### Table II-B

#### As of October 1, 2016

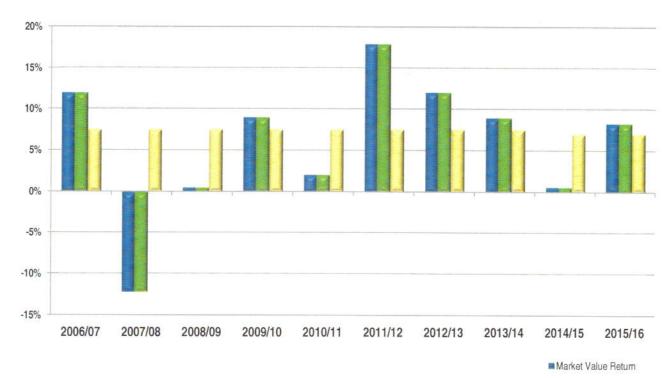
Market Value of Assets	\$358,184
Cash	\$2,865
Bond pooled fund	\$55,877
Core pooled fund	\$85,248
Growth stock pooled fund	\$27,222
Small cap stock pooled fund	\$40,475
Large cap value stock pooled fund	\$29,371
Russell 1000 index fund	\$82,024
International stock pooled fund	\$35,102



#### **Historical Market Value of Assets** October 1, 2007 \$822,401 October 1, 2008 \$646,405 October 1, 2009 \$573,379 October 1, 2010 \$546,940 October 1, 2011 \$488,225 October 1, 2012 \$499,902 October 1, 2013 \$487,714 October 1, 2014 \$458,926 October 1, 2015 \$391,547 October 1, 2016 \$358,184



Investment Return Table II-C



### Annual Investment Returns

	Market	Actuarial	
Plan	Value	Value	Assumed
Year	Return	Return	Return
2006/07	11.96%	11.96%	7.50%
2007/08	-12.23%	-12.23%	7.50%
2008/09	0.51%	0.51%	7.50%
2009/10	8.97%	8.97%	7.50%
2010/11	2.08%	2.08%	7.50%
2011/12	17.90%	17.90%	7.50%
2012/13	12.02%	12.02%	7.50%
2013/14	8.95%	8.95%	7.50%
2014/15	0.62%	0.62%	7.00%
2015/16	8.29%	8.29%	7.00%
10yr. Avg.	5.59%	5.59%	7.40%



■ Actuarial Value Return

Assumed Return

Asset Reconciliation		Table II-D
	Market Value	<b>Actuarial Value</b>
As of October 1, 2013	\$458,926	\$458,926
Increases Due To:		
Employer Contributions	\$0	\$0
Total Contributions	\$0	\$0
Interest and Dividends Realized Gains (Losses) Unrealized Gains (Losses)	\$0 \$0 \$32,442	
Total Investment Income	\$32,442	\$32,442
Other Income	\$0	
Total Income	\$32,442	\$32,442
Decreases Due To:		
Monthly Benefit Payments	(\$124,919)	(\$124,919)
Total Benefit Payments	(\$124,919)	(\$124,919)
Investment Expenses Administrative Expenses	\$0 (\$8,265)	(\$8,265)
Advance Employer Contribution		\$0
Total Expenses	(\$133,184)	(\$133,184)
As of October 1, 2016	\$358,184	\$358,184



### Historical Trust Fund Detail

Table II-E

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		Realiz	ed	Unrealized	
Plan	Employer	Interest / Gain	s/	Gains /	Other
Year	Contribs.	<u>Dividends</u> <u>Loss</u>	es	Losses	Income
2006/07	\$18,998	\$0	\$0	\$91,254	\$0
2007/08	\$0	\$0	\$0	-\$95,689	\$0
2008/09	\$0	\$0	\$0	\$3,091	\$0
2009/10	\$3,051	\$0	\$0	\$48,093	\$0
2010/11	\$3,051	\$0	\$0	\$10,637	\$0
2011/12	\$0	\$0	\$0	\$81,168	\$0
2012/13	\$0	\$0	\$0	\$56,009	\$0
2013/14	\$0	\$0	\$0	\$40,560	\$0
2014/15	\$0	\$0	\$0	\$2,613	\$0
2015/16	\$0	\$0	\$0	\$29,829	\$0

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ΕX	n	0	27	0	0	0
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#### Other Actuarial Adjustments

	Monthly			Advance
Plan	Benefit	Admin.	Invest.	Employer
<u>Year</u>	<b>Payments</b>	Expenses	Expenses	Contribs.
2006/07	\$79,539	\$2,589	\$0	\$0
2007/08	\$75,537	\$4,770	\$0	\$0
2008/09	\$73,988	\$2,129	\$0	\$0
2009/10	\$73,214	\$4,369	\$0	\$0
2010/11	\$70,296	\$2,107	\$0	\$0
2011/12	\$66,212	\$3,279	\$0	\$0
2012/13	\$66,212	\$1,985	\$0	\$0
2013/14	\$66,212	\$3,136	\$0	\$0
2014/15	\$63,484	\$6,508	\$0	\$0
2015/16	\$61,435	\$1,757	\$0	\$0

Note: Information was not available to separate the investment expenses from the investment income nor was information available to separate the investment income by source.



### Other Reconciliations

# Table II-F

### Advance Employer Contribution

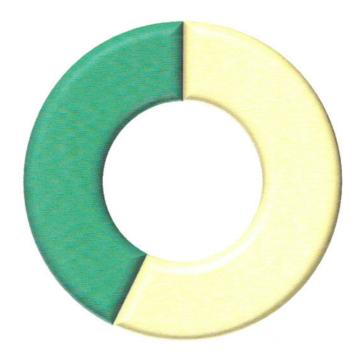
Advance Employer Contribution as of October 1, 2014	\$0
Additional Employer Contribution	\$0
Minimum Required Contribution	\$0
Net Increase in Advance Employer Contribution	\$0
Advance Employer Contribution as of October 1, 2015	\$0
Additional Employer Contribution	\$0
Minimum Required Contribution	\$0
Net Increase in Advance Employer Contribution	\$0
Advance Employer Contribution as of October 1, 2016	\$0



# Summary of Participant Data

### Table III-A

### As of October 1, 2016



Participant Distribution by Status

Actively Employed Participants	
<ul> <li>Active Participants</li> </ul>	0
DROP Participants	0
Inactive Participants	
<ul> <li>Deferred Vested Participants</li> </ul>	0
Due a Refund of Contributions	0
Deferred Beneficiaries	0
Participants Receiving a Benefit	
Service Retirements	4
Disability Retirements	0
Beneficiaries Receiving	3

**Total Participants** 

Number of Participants Included in Prior Valuations							
	Active	DROP	Inactive	Retired	Total		
October 1, 2007	0	0	0	12	12		
October 1, 2008	N/A	N/A	N/A	N/A	N/A		
October 1, 2009	0	0	0	10	10		
October 1, 2010	N/A	N/A	N/A	N/A	N/A		
October 1, 2011	0	0	0	9	9		
October 1, 2012	N/A	N/A	N/A	N/A	N/A		
October 1, 2013	N/A	N/A	N/A	N/A	N/A		
October 1, 2014	0	0	0	8	8		
October 1, 2015	N/A	N/A	N/A	N/A	N/A		
October 1, 2016	0	0	0	7	7		



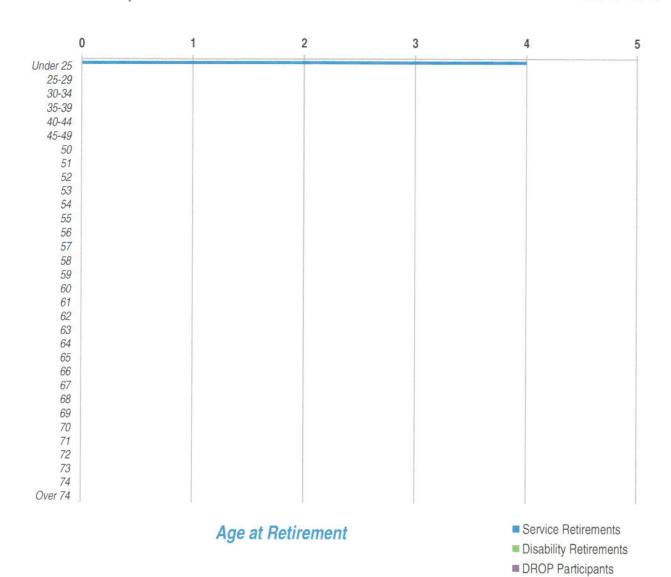
# Data Reconciliation Table III-B

	Active	DROP	Deferred Vested	Due a Refund	Def. Benef.	Service Retiree	Disabled Retiree	Benef. Rec'v.	<u>Total</u>
October 1, 2014	0	0	0	0	0	5	0	3	8
Change in Status Re-employed Terminated Retired									
Participation Ended Transferred Out Cashed Out Died						(1)			(1)
Participation Began Newly Hired Transferred In New Beneficiary									
Other Adjustment									
October 1, 2016	0	0	0	0	0	4	0	3	7



# Inactive Participant Data

### Table III-C



### Average Monthly Benefit

Service Retirements	\$789.52
Disability Retirements	Not applicable
Beneficiaries Receiving	\$540.03
DROP Participants	Not applicable
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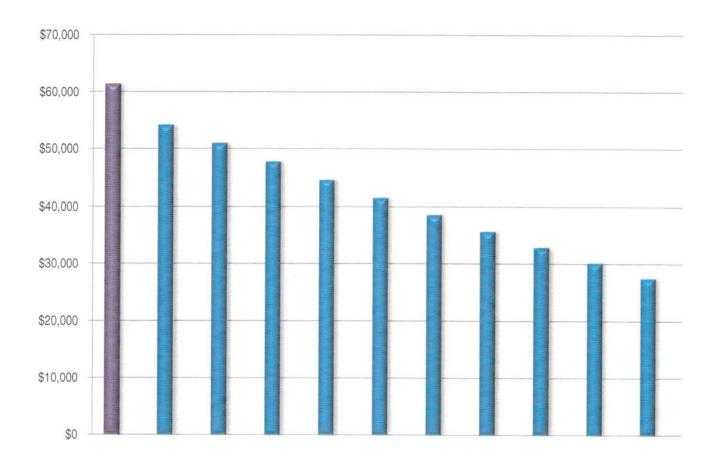
Deferred Vested Participants Not applicable

Deferred Beneficiaries Not applicable



# Projected Benefit Payments

### Table III-D



Actual For the period October 1, 2015 through September 30, 2016	\$61,435
Projected	
For the period October 1, 2016 through September 30, 2017	\$54,182
For the period October 1, 2017 through September 30, 2018	\$51,013
For the period October 1, 2018 through September 30, 2019	\$47,854
For the period October 1, 2019 through September 30, 2020	\$44,719
For the period October 1, 2020 through September 30, 2021	\$41,636
For the period October 1, 2021 through September 30, 2022	\$38,641
For the period October 1, 2022 through September 30, 2023	\$35,736
For the period October 1, 2023 through September 30, 2024	\$32,921
For the period October 1, 2024 through September 30, 2025	\$30,181
For the period October 1, 2025 through September 30, 2026	\$27,515



### Summary of Actuarial Methods and Assumptions

Table IV-A

NOTE: The following assumptions and methods have been selected and approved by the Board of Trustees based in part on the advice of the plan's enrolled actuary in accordance with the authority granted to the Board under the pension ordinances and State law.

#### 1. Actuarial Cost Method

Aggregate cost method. Under this actuarial cost method, a funding cost is developed for the plan as a level dollar amount per individual. The level dollar amount is calculated as the excess of the total future benefit liability over accumulated assets and future employee contributions, with this excess spread over the life expectancy for current retired participants and their beneficiaries. The normal cost is equal to the level dollar amount multiplied by the total life expectancy for retired participants and their beneficiaries solely during the year immediately following the valuation date. The actuarial accrued liability is equal to the accumulated assets. Therefore, under the aggregate cost method, no unfunded accrued liability is developed.

#### 2. Asset Method

The actuarial value of assets is equal to the market value of assets.

#### 3. Interest (or Discount) Rate

7.00% per annum

#### Decrements

 Post-retirement mortality: Sex-distinct rates set forth in the RP-2000 Combined Mortality Table, with full generational improvements in mortality using Scale BB

#### Expenses

The total projected benefit liability has been loaded by 5.00% to account for anticipated administrative expenses. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.



### Changes in Actuarial Methods and Assumptions

Table IV-B

Since the completion of the previous valuation, the mortality basis was changed from a 2015 projection of the RP-2000 Mortality Table for annuitants to a full generational projection using Scale BB of the RP-2000 Combined Mortality Table as required by State law.

