Retirement Plan for the General Employees Of the City of Clermont, Florida

Actuarial Valuation
As of October 1, 2020

Determines the Contribution
For the 2020/21 Fiscal Year

SOUTHERN ACTUARIAL SERVICES

Table of Contents

April 14, 2021

Introduction

This report presents the results of the October 1, 2020 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, 2020 and to determine the minimum required contribution under Chapter 112, Florida Statutes, for the 2020/21 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 *estimate* 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 2020/21 plan year. The minimum required contribution is $5,582, which is $5,436 less than the minimum required contribution that was developed in the prior valuation.

The normal cost rate is $5,217. Table I-C provides a breakdown of the sources of change in the normal cost rate. Significantly, the rate increased by $387 due to investment shortfalls, decreased by $9,382 due to demographic experience, and increased by $3,915 due to the assumption changes that are described below. The market value of assets earned 4.78% during the 2018/19 plan year and 5.92% during the 2019/20 plan year, whereas a 7.00% annual

investment return was required to maintain a stable contribution rate. The demographic gain occurred because three out of seven retirees passed away since the previous valuation.

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 2020/21 minimum required contribution will be equal to $5,582. Furthermore, if an actuarial valuation is not prepared as of October 1, 2021, then the $5,582 contribution amount will also apply for the 2021/22 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 $307,350. As illustrated in Table I-A, current assets are sufficient to cover $273,580 of this amount and the 2020/21 employer contribution will cover $5,582 of this amount, leaving $28,188 to be covered by future employer contributions after the 2020/21 plan year. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

Actuarial Assumption Changes

Since the completion of the previous valuation, the mortality basis was changed from the RP-2000 Combined Mortality Table with generational improvements in mortality using Scale BB to selected PUB-2010 Mortality Tables with generational improvements in mortality using Scale MP-2018 and the administrative expense loading was increased from 5.00% of the projected benefit liability to 15.00% of the projected benefit liability. The impact of these assumption changes was to increase the normal cost rate by $3,915.

Identification and Assessment of Risk

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 *estimate* 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, there is always a risk that, should these assumptions not be realized, the liabilities of the plan, the contributions required to fund the plan, and the funded status of the plan may be significantly different than the amounts shown in this report.

Although a thorough analysis of the risk of not meeting the assumptions is beyond the scope of this report, this discussion is intended to identify the significant risks faced by the plan. In some cases, a more detailed review of the risks, including numerical analysis, may be appropriate to help the plan sponsor and other interested parties assess the specific impact of not realizing certain assumptions. For example, Table I-B illustrates the impact that alternative long-term investment

returns would have on the contribution rate. Note that this report is not intended to provide advice on the management or reduction of the identified risks nor is this report intended to provide investment advice.

The most significant risk faced by most defined benefit pension plans is investment risk, i.e. the risk that long-term investment returns will be less than assumed. Other related risks include a risk that, if the investments of the plan decline dramatically over a short period of time (such as occurred with many pension plans in 2008), the plan's assets may not have sufficient time to recover before benefits become due. Even if the assets of the plan grow in accordance with the assumed investment return over time, if benefit payments are expected to be large in the short-term (for example, if the plan provides an actuarial equivalent lump sum payment option and a large number of participants are expected to become entitled to such a lump sum in the near future), the plan's assets may not be sufficient to support such a high level of benefit payments. We have provided a 10-year projection of the expected benefit payments in Table III-G to help the Trustees in formulating an investment policy that is expected to provide an investment return that meets both the short- and long-term cash flow needs of the pension plan.

Another source of risk is demographic experience. This is the risk that participants will receive salary increases that are different than the amount assumed, that participants will retire, become disabled, or terminate their employment at a rate that is different than assumed, and that participants will live longer than assumed, just to cite a few examples of the demographic risk faced by the plan. Although for most pension plans, the demographic risk is not as significant as the investment risk, particularly in light of the fact that the mortality assumption includes a component for future life expectancy increases, the demographic risk can nevertheless be a significant contributing factor to liabilities and contribution rates that become higher than anticipated.

A third source of risk is the risk that the plan sponsor (or other contributing entities) will not make, or will not have the ability to make, the contributions that are required to keep the plan funded at a sufficient level. Material changes in the number of covered employees, covered payroll, and, in some cases, hours worked by active participants can also significantly impact the plan's liabilities and the level of contributions received by the plan.

Finally, an actuarial funding method has been used to allocate the gap between projected liablities and assets to each year in the future. The contribution rate under some funding methods is higher during the early years of the plan and then is lower during the later years of the plan. Other funding methods provide for lower contribution rates initially, with increasing contribution rates over time.

The Trustees have adopted the aggregate funding method for this plan, which is expected to result in a contribution rate that is level over the remaining life of the plan's retired participants. A brief description of the actuarial funding method is provided in Table IV-A.

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, 2020, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

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,

Charles T. Carr

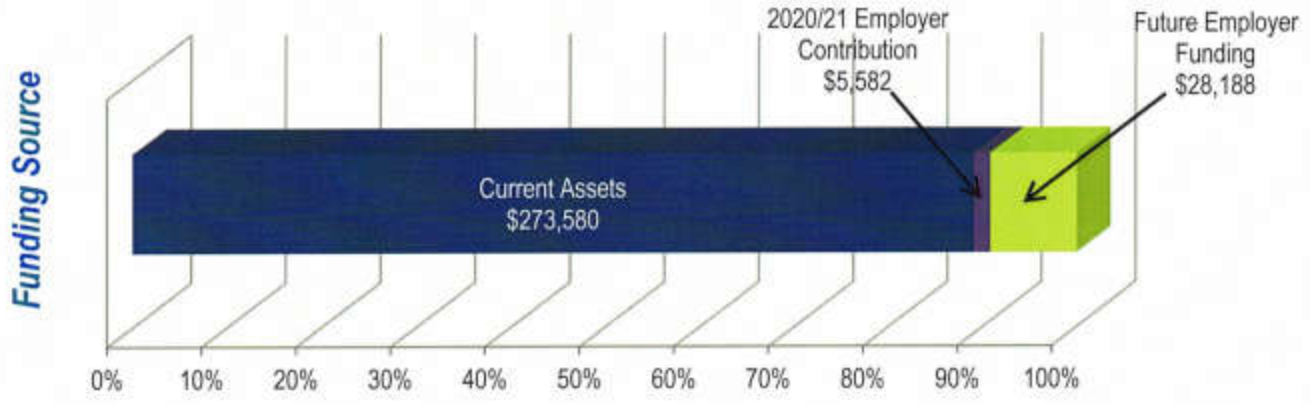
Charles T. Carr
Consulting Actuary
Southern Actuarial Services Company, Inc.

Enrolled Actuary No. 20-04927

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

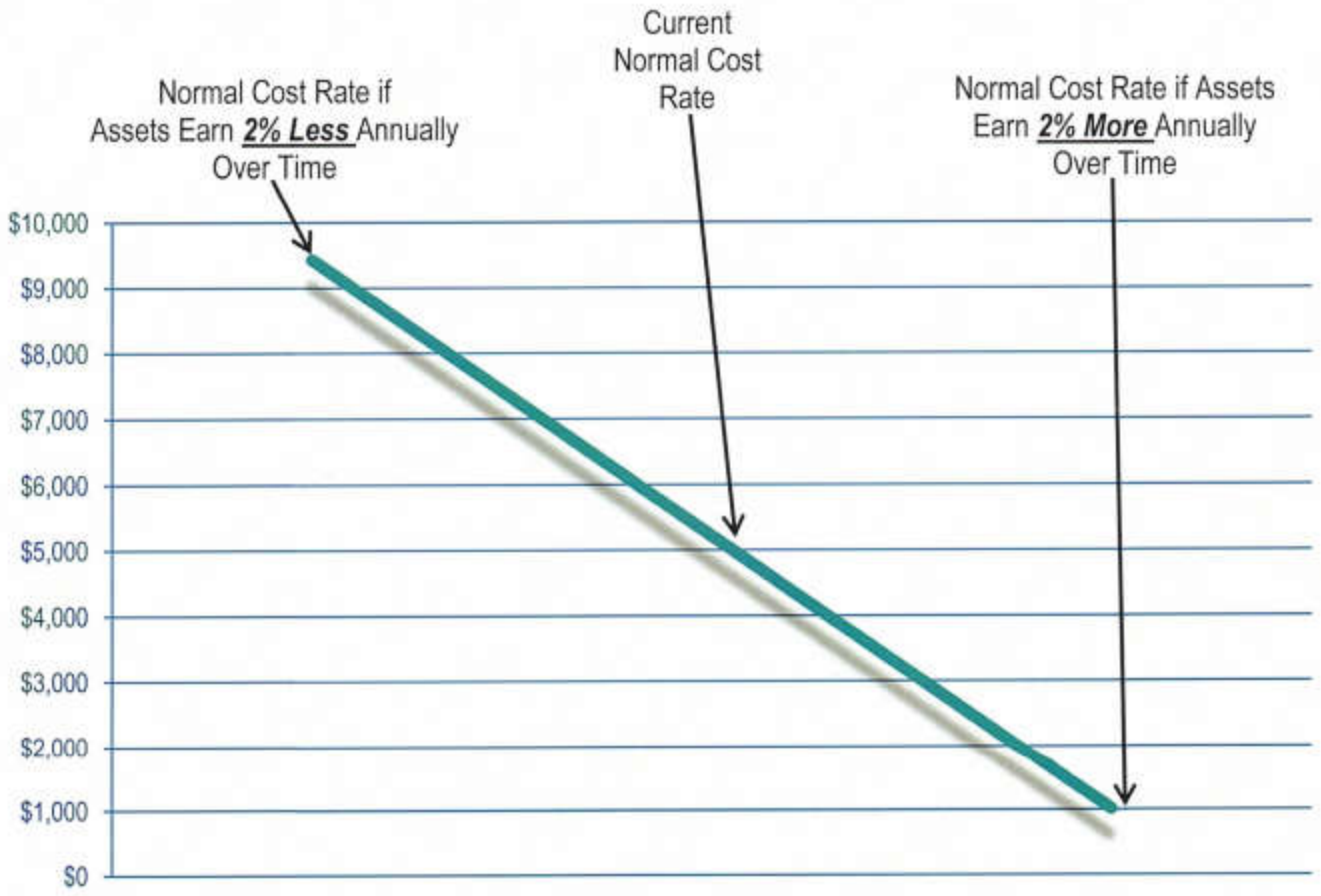
Table I-A



	For the 2020/21 Plan Year
Present Value of Future Benefits	$267,261
Present Value of Future Administrative Expenses	$40,089
Actuarial Value of Assets	($273,580)
Present Value of Future Employee Contributions	$0
Present Value of Future Normal Costs	$33,770
Present Value of Future Life	*÷ 25.8917*
Normal Cost Rate	*= $1,304*
Expected Lives	*x 4.0000*
Normal Cost	$5,217
Adjustment to Reflect an End-of-Year Employer Contribution	$365
Minimum Required Contribution	**$5,582**

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	$10,297
Increase (decrease) due to investment gains and losses	$387
Increase (decrease) due to demographic experience	($9,382)
Increase (decrease) due to plan amendments	$0
Increase (decrease) due to actuarial assumption changes	$3,915
Increase (decrease) due to actuarial method changes	$0
Current normal cost rate	$5,217

Present Value of Future Benefits

Table I-D

	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**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$240,938	$240,938	$235,619
Disability retirements	$0	$0	$0
Beneficiaries receiving	$31,868	$31,868	$31,642
DROP participants	$0	$0	$0
Sub-total	**$272,806**	**$272,806**	**$267,261**
Grand Total	**$272,806**	**$272,806**	**$267,261**
Present Value of Future Payroll	$0	$0	$0
Present Value of Future Employee Contribs.	$0	$0	$0
Present Value of Future Employer Contribs.	$40,147	$40,147	$33,770

Present Value of Accrued Benefits

Table I-E

	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**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$240,938	$240,938	$235,619
Disability retirements	$0	$0	$0
Beneficiaries receiving	$31,868	$31,868	$31,642
DROP participants	$0	$0	$0
Sub-total	**$272,806**	**$272,806**	**$267,261**
Grand Total	**$272,806**	**$272,806**	**$267,261**
Funded Percentage	100.28%	100.28%	102.36%

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**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$240,938	$240,938	$235,619
Disability retirements	$0	$0	$0
Beneficiaries receiving	$31,868	$31,868	$31,642
DROP participants	$0	$0	$0
Sub-total	**$272,806**	**$272,806**	**$267,261**
Grand Total	**$272,806**	**$272,806**	**$267,261**

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**
Deferred Beneficiaries	**$0**	**$0**	**$0**
Retired Participants			
Service retirements	$240,938	$240,938	$235,619
Disability retirements	$0	$0	$0
Beneficiaries receiving	$31,868	$31,868	$31,642
DROP participants	$0	$0	$0
Sub-total	**$272,806**	**$272,806**	**$267,261**
Grand Total	**$272,806**	**$272,806**	**$267,261**

Actuarial Value of Assets

Table II-A

Market Value of Assets as of October 1, 2020	$273,580
Minus advance employer contributions	$0
Actuarial Value of Assets as of October 1, 2020	**$273,580**

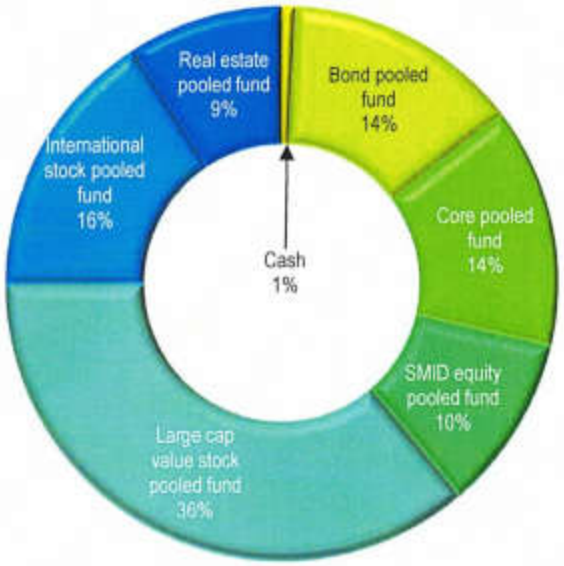
Historical Actuarial Value of Assets

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
October 1, 2017	$348,625
October 1, 2018	$323,262
October 1, 2019	$293,669
October 1, 2020	$273,580

Market Value of Assets

Table II-B

	As of October 1, 2020
Market Value of Assets	**$273,580**
Cash	$2,189
Bond pooled fund	$38,028
Core pooled fund	$38,301
SMID equity pooled fund	$27,905
Large cap value stock pooled fund	$98,762
International stock pooled fund	$43,499
Real estate pooled fund	$24,896



Historical Market Value of Assets	
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
October 1, 2017	$348,625
October 1, 2018	$323,262
October 1, 2019	$293,669
October 1, 2020	$273,580

Investment Return

Table II-C

Annual Investment Returns

Plan Year	Market Value Return	Actuarial Value Return	Assumed Return
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%
2016/17	13.43%	13.43%	7.00%
2017/18	7.69%	7.69%	7.00%
2018/19	4.78%	4.78%	7.00%
2019/20	5.92%	5.92%	7.00%
10yr. Avg.	8.05%	8.05%	7.20%

Asset Reconciliation

Table II-D

	Market Value	Actuarial Value
As of October 1, 2018	**$323,262**	**$323,262**
Increases Due To:		
Employer Contributions	$22,036	$22,036
Total Contributions	$22,036	$22,036
Interest and Dividends	$0	
Realized Gains (Losses)	$0	
Unrealized Gains (Losses)	$30,716	
Total Investment Income	$30,716	$30,716
Other Income	$0	
Total Income	**$52,752**	**$52,752**
Decreases Due To:		
Monthly Benefit Payments	($95,566)	($95,566)
Total Benefit Payments	($95,566)	($95,566)
Investment Expenses	$0	
Administrative Expenses	($6,868)	($6,868)
Advance Employer Contribution		$0
Total Expenses	**($102,434)**	**($102,434)**
As of October 1, 2020	**$273,580**	**$273,580**

Historical Trust Fund Detail

Table II-E

Income

Plan Year	Employer Contribs.	Interest / Dividends	Realized Gains / Losses	Unrealized Gains / Losses	Other Income
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
2016/17	$8,767	$0	$0	$44,469	$0
2017/18	$8,767	$0	$0	$24,889	$0
2018/19	$11,018	$0	$0	$14,396	$0
2019/20	$11,018	$0	$0	$16,320	$0

Expenses

Plan Year	Monthly Benefit Payments	Admin. Expenses	Invest. Expenses
2010/11	$70,296	$2,107	$0
2011/12	$66,212	$3,279	$0
2012/13	$66,212	$1,985	$0
2013/14	$66,212	$3,136	$0
2014/15	$63,484	$6,508	$0
2015/16	$61,435	$1,757	$0
2016/17	$57,338	$5,457	$0
2017/18	$57,338	$1,681	$0
2018/19	$53,410	$1,597	$0
2019/20	$42,156	$5,271	$0

Other Actuarial Adjustments

Plan Year	Advance Employer Contribs.
2010/11	$0
2011/12	$0
2012/13	$0
2013/14	$0
2014/15	$0
2015/16	$0
2016/17	$0
2017/18	$0
2018/19	$0
2019/20	$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

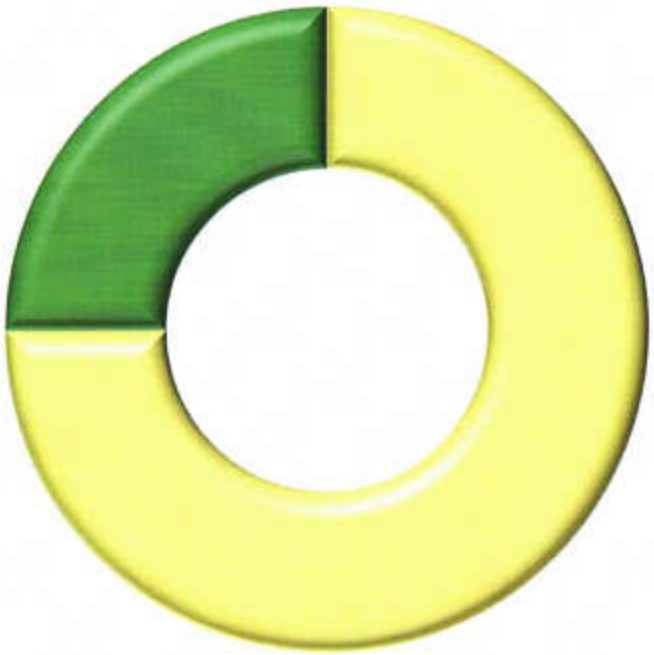
Advance Employer Contribution

Advance Employer Contribution as of October 1, 2018	$0
Additional Employer Contribution	$11,018
Minimum Required Contribution	($11,018)
Net Increase in Advance Employer Contribution	$0
Advance Employer Contribution as of October 1, 2019	$0
Additional Employer Contribution	$11,018
Minimum Required Contribution	($11,018)
Net Increase in Advance Employer Contribution	$0
Advance Employer Contribution as of October 1, 2020	$0

Summary of Participant Data

Table III-A

As of October 1, 2020



Participant Distribution by Status

Actively Employed Participants	
Active Participants	0
DROP Participants	0
Inactive Participants	
Deferred Vested Participants	0
Due a Refund of Contributions	0
Deferred Beneficiaries	0
Participants Receiving a Benefit	
Service Retirements	3
Disability Retirements	0
Beneficiaries Receiving	1
Total Participants	**4**

Number of Participants Included in Prior Valuations

	Active	*DROP*	*Inactive*	*Retired*	*Total*
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
October 1, 2017	N/A	N/A	N/A	N/A	N/A
October 1, 2018	0	0	0	7	7
October 1, 2019	N/A	N/A	N/A	N/A	N/A
October 1, 2020	0	0	0	4	4

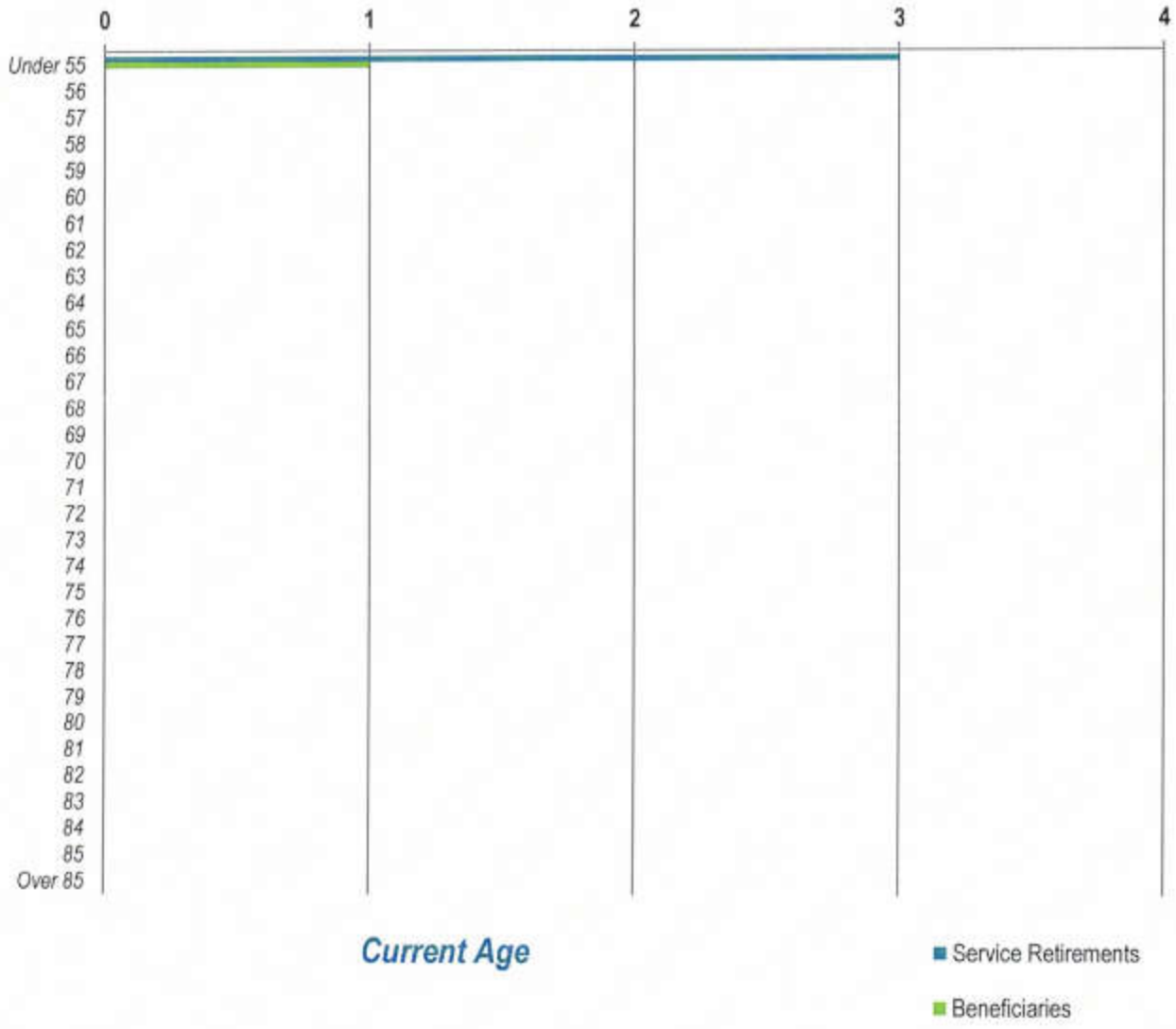
Data Reconciliation

Table III-B

	Active	DROP	Deferred Vested	Due a Refund	Def. Benef.	Service Retiree	Disabled Retiree	Benef. Rec'v.	Total
October 1, 2018	0	0	0	0	0	4	0	3	**7**
Change in Status									
Re-employed									
Terminated									
Retired									
Participation Ended									
Transferred Out									
Cashed Out									
Died						(1)		(2)	**(3)**
Participation Began									
Newly Hired									
Transferred In									
New Beneficiary									
Other Adjustment									
October 1, 2020	0	0	0	0	0	3	0	1	**4**

Inactive Participant Data

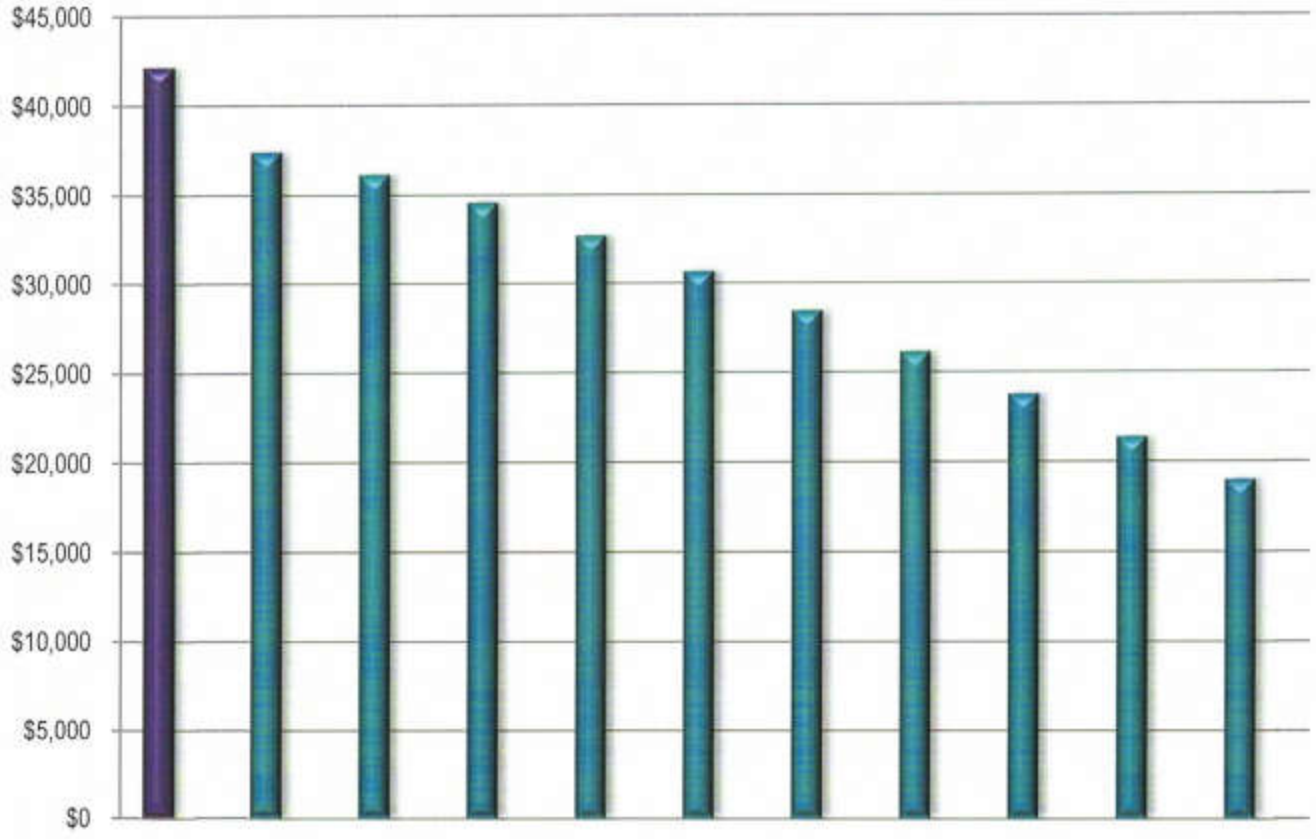
Table III-C



	Average Monthly Benefit
Service Retirements	*$921.08*
Disability Retirements	*Not applicable*
Beneficiaries Receiving	*$429.63*
DROP Participants	*Not applicable*
Deferred Vested Participants	*Not applicable*
Deferred Beneficiaries	*Not applicable*

Projected Benefit Payments

Table III-D



Actual	
For the period October 1, 2019 through September 30, 2020	$42,156
Projected	
For the period October 1, 2020 through September 30, 2021	$37,400
For the period October 1, 2021 through September 30, 2022	$36,128
For the period October 1, 2022 through September 30, 2023	$34,546
For the period October 1, 2023 through September 30, 2024	$32,701
For the period October 1, 2024 through September 30, 2025	$30,651
For the period October 1, 2025 through September 30, 2026	$28,447
For the period October 1, 2026 through September 30, 2027	$26,140
For the period October 1, 2027 through September 30, 2028	$23,773
For the period October 1, 2028 through September 30, 2029	$21,386
For the period October 1, 2029 through September 30, 2030	$19,008

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

4. Decrements

- Post-retirement mortality: Sex-distinct rates set forth in the PUB-2010 Headcount-Weighted Below Median Healthy Retiree Mortality Table for general employees, with full generational improvements in mortality using Scale MP-2018 and with male ages set back one year

5. Expenses

The total projected benefit liability has been loaded by 15.00% 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 the RP-2000 Combined Mortality Table with generational improvements in mortality using Scale BB to selected PUB-2010 Mortality Tables with generational improvements in mortality using Scale MP-2018 and the administrative expense loading was increased from 5.00% of the projected benefit liability to 15.00% of the projected benefit liability.

The following additional assumption and method changes were made during the past 10 years:

(1) *Effective October 1, 2016, 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.*

(2) *Effective October 1, 2014, the assumed interest (or discount) rate was reduced from 7.50% per annum to 7.00% per annum.*

(3) *Effective October 1, 2014, the mortality basis was updated from a 2007 projection of the RP-2000 Mortality Table to a 2015 projection of the RP-2000 Mortality Table.*