CITY OF HOLLYWOOD EMPLOYEES' RETIREMENT FUND

CALENDAR OF ITEMS

REGULAR BOARD MEETING MAY 25, 2021 Additional Material
Agenda Items 4A and 5A

AGENDA ITEM 4.A.

FINANCIAL

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2020

City of Hollywood Employees' Retirement Fund

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2020

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2022









May 21, 2021

Board of Trustees City of Hollywood Employees' Retirement Fund Hollywood, Florida

Re: City of Hollywood Employees' Retirement Fund Actuarial Valuation as of October 1, 2020

Dear Members of the Board:

The results of the October 1, 2020 Annual Actuarial Valuation of the City of Hollywood (City) Employees' Retirement Fund (Retirement Fund or Plan) are presented in this report.

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

The purposes of the valuation are to measure the Retirement Fund's funding progress and to determine the employer contribution rate for the fiscal year ending September 30, 2022. 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 contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

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 findings in this report are based on data and other information through October 1, 2020. The valuation was based upon information furnished by the Plan Administrator and 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 audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator and the City.

This report was prepared using certain assumptions approved by the Board as authorized under and prescribed by the Florida Statutes, as described in the section of this report entitled Actuarial Assumptions and Cost Method. The investment return assumption was prescribed by the Board, and the

Board of Trustees May 21, 2021 Page ii

assumed mortality rates detailed in the Actuarial Assumptions and Cost Method section were prescribed by the Florida Statutes in accordance with Chapter 112.63, Florida Statutes. All actuarial assumptions used in this report are reasonable for purposes of this valuation.

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 Fund 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.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Jeffrey Amrose and Trisha Amrose are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards 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 us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our 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 (GRS) 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,

GABRIEL, ROEDER, SMITH & COMPANY

Jeffrey Amrose, MAAA, FCA

Enrolled Actuary No. 20-6599

Senior Consultant & Actuary

Trisha Amrose, MAAA, FCA

Enrolled Actuary No. 20-8010

Consultant & Actuary



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	Page
Α	Discussion of Valuation Results	
	1. Discussion of Valuation Results	1
	2. Risks Associated with Measuring the Accrued	
	Liability and Actuarially Determined Contribution	5
В	Valuation Results	
	1. Participant Data	8
	2. Actuarially Determined Contribution (ADC)	9
	Allocation of Required Employer Contribution	
	by Employee Group	10
	Actuarial Value of Benefits and Assets	11
	Calculation of Employer Normal Cost	12
	Liquidation of the Unfunded	
	Actuarial Accrued Liability	13
	7. Actuarial Gains and Losses	15
	8. Recent History of Valuation Results	21
	9. Recent History of Required and	
	Actual Contributions	22
	10. Actuarial Assumptions and Cost Method	24
	11. Glossary of Terms	33
С	Pension Fund Information	
	1. Summary of Plan Assets at Market Value	36
	Reconciliation of Plan Assets	37
	Development of Actuarial Value of Assets	38
	4. Reconciliation of DROP Accounts	39
	5. Investment Rate of Return	40
D	Financial Accounting Information	
	1. FASB Statement No. 35 Information	41
E	Miscellaneous Information	
	Reconciliation of Membership Data	42
	Active Participant Scatter	43
	3. Inactive Participant Scatter	44
F	Summary of Plan Provisions	45



SECTION A

DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Employer Contributions

The following is a comparison of required contributions developed in this year's and last year's actuarial valuations.

Required Employer Contribution	For FYE 9/30/2022 Based on 10/1/2020 Valuation		Fo	r FYE 9/30/2021 Based on 10/1/2019 Valuation	Increase (Decrease)
If paid in full on October 1 Date of Payment		10/1/2021		10/1/2020	
Actuarially Determined Contribution As a Dollar Amount As % of Covered Payroll	\$	28,082,806 66.52 %	\$	29,106,927 68.81 %	\$ (1,024,121) (2.29) %
Additional Installment Payment Toward Previous Contribution Shortfall	\$	3,072,428 **	\$	3,067,894 *	\$ 4,534
Total Required Contribution	\$	31,155,234	\$	32,174,821	\$ (1,019,587)

^{*} The first installment payment of \$3,086,253 due on October 1, 2020 toward the previous City contribution shortfall was reduced because it was paid by the City on an expedited schedule.

Payment of Required Contribution

The required contribution displayed above is the required contribution if the payment is made in full on the first day of the fiscal year. The required contribution if paid biweekly during the fiscal year, adjusted for interest on the basis that payment is made at the end of each pay period, is shown on page 9.

The actual employer contribution for the fiscal year ending September 30, 2020 was \$28,909,031 (\$28,879,293 from the City plus \$29,738 from the County). The actuarially determined contribution was \$28,879,293 reflecting interest based on the payment schedule.

This report reflects a \$13,423,122 receivable employer contribution. The \$13,423,122 receivable contribution is the City contribution shortfall due to the City making the required contribution excluding



^{**} The installment payment amounts shown in our September 18, 2020 letter have been recalculated to reflect the updated 7.3% investment return assumption effective October 1, 2020.

the pre-funding of the Supplemental Pension Distribution for the fiscal years ending September 30, 2015 through September 30, 2019. It equates to the \$12,486,625 receivable contribution as of September 30, 2019 with interest through September 30, 2020.

The State has permitted the City to pay this outstanding amount over a five-year period beginning October 1, 2020. The five years of installment payments were originally determined in our September 18, 2020 letter. The second through the fifth installment payment amounts have been recalculated to reflect the updated 7.3% investment return assumption approved by the Board effective October 1, 2020.

Revisions in Benefits

There were no revisions in benefits since the previous valuation.

Revisions in Actuarial Assumptions or Methods

The following revisions in actuarial assumptions/methods were approved and adopted by Board effective in this valuation:

- The investment return assumption was lowered from 7.50% to 7.30%, net of investment expenses.
- Assumed mortality rates were revised since the prior valuation to be the same as those employed by the Florida Retirement System (FRS) in its July 1, 2019 actuarial valuation, as prescribed by F. S. 112.63(1)(f), which mandates the use of the mortality tables used in either of the two most recently published actuarial valuation reports of FRS.
- The amortization period for new unfunded accrued liability (UAL) bases as of October 1, 2020 was lowered from 30 years to 29 years, and future bases will be lowered by one year in each subsequent valuation until reaching 25 years.

The combined impact of the assumption/method changes decreased the required employer contribution slightly by 0.04% of covered payroll.

Currently, the Plan's costs and liabilities are determined by anticipating that the pension fund will earn 7.3% per year net of investment expenses, or about 7.5% gross before investment expenses. Based on the Plan's asset allocation, an assumed net rate of return of no more than 7.0% would be more in-line with projected expected returns over the long-term. The current assumption of 7.3% is towards the upper limit of what we believe constitutes a reasonable range for this assumption, so we recommend consideration be given to lowering the investment return assumption.



Actuarial Experience

There was a net actuarial gain of \$1,751,522 for the year, which means that actual experience was more favorable than anticipated. The gain is primary due to the recognized investment return exceeding the assumed rate of 7.5%. The recognized investment return was 8.0% based on actuarial value of assets (7.7% based on market value of assets). Additionally, there were liability gains primarily due to lower than expected salary increases (average salary increases were 3.1% versus 5.4% assumed). The net gain decreased the required employer contribution by 0.33% of covered payroll.

Supplemental Pension Distribution

Since the investment return for the fiscal year ending September 30, 2020 is below 12.0% (i.e., 4.5% above the assumed rate), a Supplemental Pension Distribution is not payable for the fiscal year ending September 30, 2020.

Funded Ratio

The funded ratio this year is 63.3% compared to 60.3% last year. The funded ratio was 63.4% before the changes in actuarial assumptions. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

Analysis of Change in Employer Contributions

The components of change in the required employer contribution as a percent of payroll are as follows:

Contribution Rate Last Year	71.39 %
Changes in Benefits	0.00
Changes in Actuarial Assumptions	(0.04)
Actuarial Experience	(0.33)
Amortization Payment on UAAL	(1.74)
Normal Cost Rate	(0.34)
Administrative Expenses	0.02
Contribution Rate This Year	68.96

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.



The Actuarial Value of Assets exceeds the Market Value of Assets by \$5,395,324 as of the valuation date (see Section C). This difference will be gradually recognized over the next several years. In turn, the computed employer contribution rate will increase by approximately 1.02% of covered payroll over the same period in the absence of offsetting gains.

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 3.5% per year or, if less, the average payroll growth over the most recent ten years. The most recent ten-year average is 0.51% compared to 0% last year. If the ten-year average falls below this rate next year, the amortization payments will increase. For example, if the payroll growth assumption was lowered to 0%, the UAL payment would have increased from \$23,257,751 to \$23,926,176.

Relationship to Market Value

If market value of assets had been used in the valuation instead of the actuarial value of assets, the City contribution rate on a bi-weekly basis would have been 69.98%, and the funded ratio would have been 62.3%. In the absence of other gains and losses, the City contribution rate should increase to that level over the next several years.

Conclusion and Recommendations

It is important to note that plan assets are not sufficient to cover the liabilities for current retirees. As of October 1, 2020, the market value of assets is \$363.7 million (including the receivable City contribution), and the liability for current inactive members is \$468.9 million.

The funded ratio dropped from 82.5% in 2000 to the current level of 63.3%. Some steps have been taken to improve funding, such as strengthening the actuarial assumptions including lowering the assumed investment return rate and shortening the amortization period. If the maximum amortization period were shortened from 29 years to 25 years in this valuation, the actuarially determined contribution would increase by approximately \$180,000. This would result in higher contributions in the short-term for the City but would also have a positive effect on improving the funded ratio of the plan.

The remainder of this report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.



RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- 1. Investment risk actual investment returns may differ from the expected returns;
- Contribution risk actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
- 3. Salary and Payroll risk actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
- 4. Longevity risk members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
- 5. Other demographic risks members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy and Florida Statutes. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	<u>2020</u>	<u>2019</u>
Ratio of the market value of assets to payroll	8.92	8.26
Ratio of actuarial accrued liability to payroll	14.30	13.84
Ratio of actives to retirees and beneficiaries	0.5	0.5
Ratio of net cash flow to market value of assets	-0.54 %	-3.97 %

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A supermature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.



Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



SECTION B

VALUATION RESULTS

PARTICIPANT DATA							
	Oct	ober 1, 2020	October 1, 2019				
ACTIVE MEMBERS							
Number		599		592			
Covered Annual Payroll	\$	40,789,456	\$	40,869,983			
Average Annual Payroll	\$	68,096	\$	69,037			
Average Age		47.0		47.2			
Average Past Service		9.1		9.5			
Average Age at Hire		37.9		37.7			
ACTIVE TRANSFERS			·····				
Number		9		11			
Covered Annual Payroll	\$	1,094,220	\$	1,205,052			
Average Annual Payroll	\$	121,580	\$	109,550			
Average Age		44.9		44.5			
Average Past Service		3.0		2.6			
RETIREES, BENEFICIARIES & DROP PLAN MEMBERS							
Number		1,094		1,071			
Annual Benefits ¹	\$	34,265,778	\$	32,099,685			
Average Annual Benefit	\$	31,322	\$	29,972			
Average Age		68.2	ľ	68.2			
DISABILITY RETIREES							
Number		42		46			
Annual Benefits ¹	ć		ے				
Annual Benefits Average Annual Benefit	\$	1,203,376 28,652	\$	1,359,248 29,549			
Average Affilial Benefit Average Age	۶	65.9	٦	65.6			
Average Age		05.5		05.0			
TERMINATED VESTED MEMBERS			т -				
Number		54		69			
Annual Benefits	\$	781,355	\$	1,058,217			
Average Annual Benefit	\$	14,470	\$	15,336			
Average Age		48.7	1 25	49.7			

¹ Does not include any Supplemental Pension Distribution.



ACTUARIALLY DETERMINED CONTRIBUTION (ADC)									
A. Valuation Date	October 1, 2020 After Assumption	October 1, 2020 Before Assumption	October 1, 2019						
B. ADC to Be Paid During Fiscal Year Ending	Changes 9/30/2022	Changes 9/30/2022	9/30/2021						
C. Assumed Date of Employer Contribution	Biweekly	Biweekly	Biweekly						
D. Annual Payment to Amortize Unfunded Actuarial Accrued Liability	\$ 23,257,751	\$ 23,388,184	\$ 24,253,031						
E. Employer Normal Cost	3,875,138	3,737,329	3,868,791						
F. ADC if Paid on the Valuation Date: D + E	27,132,889	27,125,513	28,121,822						
G. ADC Adjusted for Frequency of Payments	28,126,468	28,145,080	29,178,837						
H. ADC as % of Covered Payroll	68.96 %	69.00 %	71.39 %						
Assumed Rate of Increase in Covered Payroll to Contribution Year	3.50 %	3.50 %	3.50 %						
J. Covered Payroll for Contribution Year	42,217,087	42,217,087	42,300,432						
K. ADC for Contribution Year: H x J	29,112,903	29,129,790	30,198,278						
L. ADC as % of Covered Payroll in Contribution Year: K ÷ J	68.96 %	69.00 %	71.39 %						
M. ADC for Contribution Year if Paid in Full on the First Day of the Fiscal Year	28,082,806	28,074,363	29,106,927						
N. ADC as % of Covered Payroll in Contribution Year: K ÷ J	66.52 %	66.50 %	68.81 %						

Please see page 1 for the installment payment toward the previous contribution shortfall due from the City in addition to the Actuarially Determined Contribution.



ALLOCATION OF REQUIRED EMPLOYER CONTRIBUTION BY EMPLOYEE GROUP								
	Employer Normal Cost	% of Total	Active Actuarial	% of Active Actuarial	Allocated Req Contribution fo	. 24.97.55.14-1		
Group	(Before Expenses)	Employer Normal Cost	Accrued Liability	Accrued Liability	Percentage	Dol	lar Amount	
Non-General Fund Members	\$ 893,009	28.40%	\$ 31,436,492	27.44%	27.58%	\$	8,028,138	
Grandfathered Non-General Fund Members	106,995	3.40%	4,206,098	3.67%	3.63%		1,057,626	
General Fund Members	2,061,679	65.57%	76,169,641	66.49%	66.36%		19,318,984	
Grandfathered General Fund Members	82,433	2.62%	2,750,755	2.40%	2.43%		708,155	
Total	\$ 3,144,116	99.99%	\$ 114,562,986	100.00%	100.00%	\$	29,112,903	

^{*} The Employer Normal Cost is allocated based on each group's percentage of the Employer Normal Cost for benefits, and the annual payment to amortize the UAL is allocated based on each group's percentage of the Actuarial Accrued Liability for active members.



	ACTUARIAL VALUE OF BENEFITS AND ASSETS							
	Valuation Date Actuarial Present Value of All Projected	October 1, 2020 After Assumption Changes	October 1, 2020 Before Assumption Changes	October 1, 2019				
9	Benefits for							
	1. Active Members							
	a. Service Retirement Benefits	\$ 137,574,654	\$ 134,821,834	\$ 141,659,852				
	b. Vesting Benefits	9,540,949	9,388,784	9,391,704				
	c. Disability Benefits d. Preretirement Death Benefits	13,293,353	12,642,449 4,982,706	12,905,033 5,242,635				
	e. Return of Member Contributions	3,725,734 1,292,328	1,302,066	1,316,960				
	f. Total	165,427,018	163,137,839	170,516,184				
	1. 10tai	103,427,010	103,137,033	170,510,101				
	2. Inactive Members							
	a. Service Retirees & Beneficiaries	447,754,013	446,770,270	418,903,714				
	b. Disability Retirees	14,248,663	14,199,353	15,935,709				
	c. Terminated Vested Members	6,861,309	6,846,727	10,018,566				
	d. Total	468,863,985	467,816,350	444,857,989				
	3. Total for All Members	634,291,003	630,954,189	615,374,173				
C.	Actuarial Accrued (Past Service) Liability (Entry Age Normal)	583,426,971	581,915,622	565,621,420				
D.	Actuarial Present Value of Accumulated Plan Benefits per FASB Statement No. 35	564,417,201	562,586,243	538,570,828				
E.	Plan Assets							
	1. Market Value	363,673,004	363,673,004	337,458,190				
	2. Actuarial Value	369,068,328	369,068,328	341,286,411				
F.	Unfunded Actuarial Accrued Liability: C - E2	214,358,643	212,847,294	224,335,009				
G.	Actuarial Present Value of Projected Covered Payroll	335,515,413	330,640,251	326,967,932				
Н.	Actuarial Present Value of Projected Member Contributions	27,949,553	27,547,716	27,455,393				
l.	Accumulated Contributions of Active Members	23,086,919	23,086,919	23,278,960				



CALCULATION OF EMPLOYER NORMAL COST								
A. B.	Valuation Date Normal Cost for	October 1, 2020 After Assumption Changes		After Assumption Before Ass		October 1, 2020 Before Assumption Changes	Oc	tober 1, 2019
	 Service Retirement Benefits Vesting Benefits Disability Benefits Preretirement Death Benefits Return of Member Contributions Total for Future Benefits Assumed Amount for Administrative Expenses Total Normal Cost 	\$	4,413,003 865,959 816,281 170,205 317,658 6,583,106 731,022 7,314,128		\$ 4,271,943 850,511 777,627 222,507 322,709 6,445,297 731,022 7,176,319	\$ 	4,401,938 877,695 782,935 231,540 322,193 6,616,301 724,049 7,340,350	
C.			3,438,990		3,438,990		3,471,559 3,868,791	
Б. Е.	Employer Normal Cost: B8-C Employer Normal Cost as % of Covered Payroll		3,875,138 9.50 %	%	3,737,329 9.16 %		9.47 %	



LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

A. UAAL Amo	A. UAAL Amortization Period and Payments									
	Original UAAL		Current UAAL							
Date Established	Source	Amount	Years Remaining		Amount	ment Before Changes				
10/1/08	Combined Base	\$ 120,402,171	8	\$	80,306,193	\$12,478,577	\$ 12,552,073			
10/1/08	Assumption Change	6,133,233	18		6,114,686	559,404	566,487			
10/1/09	Experience Loss	21,720,025	19		20,296,022	1,805,855	1,829,759			
10/1/10	Experience Loss	5,090,043	20		4,711,699	408,725	414,364			
10/1/10	Assumption Change	(11,684,981)	20		(10,816,436)	(938,291)	(951,236)			
10/1/10	Plan Change	(17,448,058)	20		(16,151,146)	(1,401,061)	(1,420,389)			
10/1/11	Experience Loss	26,493,199	21		24,592,994	2,084,450	2,114,334			
10/1/12	Experience Loss	16,888,651	22		15,565,850	1,291,588	1,310,783			
10/1/13	Experience Loss	934,513	23		869,878	70,785	71,873			
10/1/13	Plan Change	5,490,249	23		5,110,515	415,858	422,250			
10/1/13	Assumption Change	23,450,820	23		21,828,845	1,776,281	1,803,580			
10/1/14	Experience Gain	(4,233,453)	24		(3,962,884)	(316,742)	(321,765)			
10/1/14	Assumption Change	5,726,542	24		5,360,545	428,452	435,247			
10/1/15	Experience Gain	(3,077,339)	25		(2,931,378)	(230,460)	(234,224)			
10/1/15	Assumption Change	4,368,350	25		4,161,157	327,143	332,487			
10/1/15	Plan Change	598,036	25		569,672	44,787	45,518			
10/1/16	Experience Gain	(11,069,062)	26		(10,708,825)	(829,192)	(843,117)			
10/1/16	Assumption Change	23,064,814	26		22,314,179	1,727,802	1,756,818			
10/1/17	Experience Gain	(3,970,427)	27		(3,880,735)	(296,295)	(301,403)			
10/1/17	Assumption Change	5,064,314	27		4,949,913	377,927	384,442			
10/1/18	Experience Gain	(4,790,305)	28		(4,741,435)	(357,340)	(363,652)			
10/1/18	Assumption Change	5,193,624	28		5,140,639	387,426	394,270			
10/1/18	Plan Change	47,242,260	28		46,760,300	3,524,104	3,586,361			
10/1/19	Experience Gain	(871,242)	29		(861,432)	(64,147)	(65,307)			
10/1/20	Experience Gain	(1,751,522)	29*		(1,751,522)	(130,428)	(131,369)			
10/1/20	Assumption Change	1,511,349	29*	_	1,511,349	112,543	N/A			
		\$ 260,475,804		\$	214,358,643	\$23,257,751	\$ 23,388,184			

^{* 30} years prior to method change; effective in this valuation, 29-year amortization period for new bases, which will be lowered by one year in each subsequent valuation until reaching 25 years



B. Amortization Schedule

The UAAL is being liquidated as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule							
Year	Expected UAAL						
2020	\$ 214,358,643						
2021	205,051,228						
2022	194,937,127						
2023	183,956,775						
2024	172,046,282						
2025	159,137,092						
2030	105,819,912						
2035	79,434,691						
2040	43,576,629						
2045	12,219,808						
2049	0						



ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

1.	Last Year's UAAL (After Changes in Benefits,	\$	224 225 000
	Assumptions, or Methods)	Þ	224,335,009
2.	Last Year's Employer Normal Cost		3,868,791
3.	Last Year's Employer Contributions (City and County)		29,845,528
4.	Interest at the Assumed Rate on:		
	a. 1 and 2 for one year		17,115,285
	b. 3 from dates paid		874,741
	c. a-b		16,240,544
5.	This Year's Expected UAAL (Before any Changes		
	in Assumptions or Benefits): 1+2-3+4c		214,598,816
6.	Change in UAAL Due to Change in Assumptions/Methods		1,511,349
7.	Change in UAAL Due to Change in Benefits		0
8.	This Year's Expected UAAL (After Changes		
	in Assumptions and Benefits): 5+6+7		216,110,165
9.	This Year's Actual UAAL (After Changes in		
	Assumptions and Benefits)		214,358,643
10	. Net Actuarial Gain (Loss): 8 - 9		1,751,522
11	. Gain (Loss) Due to Investments		1,141,795
12	. Gain (Loss) From Other Sources		609,727

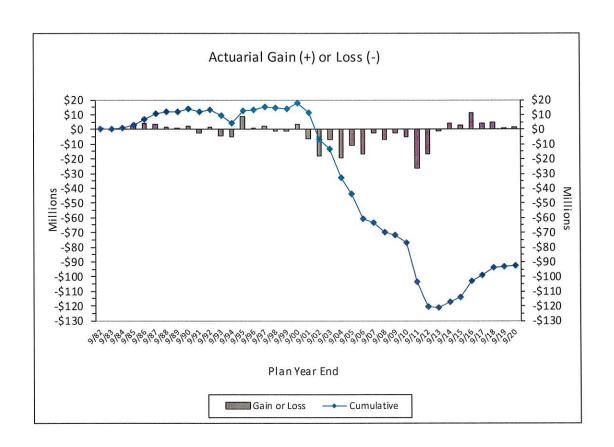


Net actuarial gains in previous years have been as follows:

	Net Gain (Loss)				
Year Ended	Prior*	Supplemental			
9/30/1982	\$ 357,574	\$ (293,400)			
9/30/1983	(53,055)	(47,952)			
9/30/1984	655,952	13,007			
9/30/1985	1,910,328	214,974			
9/30/1986	3,522,953	387,117			
9/30/1987	3,085,353	541,011			
9/30/1988	1,673,391	(20,803)			
9/30/1989	631,806	(395,640)			
9/30/1990	2,021,350	(117,331)			
9/30/1991	(2,112,517)	N/A			
9/30/1992	1,394,549	N/A			
9/30/1993	(4,345,862)	N/A			
9/30/1994	(4,780,402)	N/A			
9/30/1995	8,381,537	N/A			
9/30/1996	694,600	N/A			
9/30/1997	2,097,065	N/A			
9/30/1998	(859,539)	N/A			
9/30/1999	(828,976)	N/A			
9/30/2000	3,710,238	N/A			
9/30/2001	(6,021,041)	N/A			
9/30/2002	(18,219,741)	N/A			
9/30/2003	(6,740,689)	N/A			
9/30/2004	(19,270,365)	N/A			
9/30/2005	(11,135,131)	N/A			
9/30/2006	(16,622,969)	N/A			
9/30/2007	(2,621,034)	N/A			
9/30/2008	(6,640,889)	N/A			
9/30/2009	(2,172,025)	N/A			
9/30/2010	(5,090,043)	N/A			
9/30/2011	(26,493,199)	N/A			
9/30/2012	(16,888,651)				
9/30/2013	(934,513)	100 ₁₀			
9/30/2014	4,233,453	N/A			
9/30/2015	3,077,339	N/A			
9/30/2016	11,069,062	N/A			
9/30/2017	3,970,427	N/A			
9/30/2018	4,790,305	N/A			
9/30/2019	871,242	N/A			
9/30/2020	1,751,522	N/A			

 $[\]ensuremath{^{*}}$ After 1990, these are the figures for the entire Retirement Fund.







The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the historical actual fund earnings and salary increase rates compared to the assumed rates:

	Investme	nt Return		Salary Inc	creases	
			Prior Members		Other Me	mbers ¹
Year Ending	Actual	Assumed	Actual	Assumed	Actual	Assumed
9/30/1977	8.9 %	5.0 %	10.0 %	3.0 %	N/A %	N/A %
9/30/1978	9.5	6.5	8.3	5.0	7.1	5.0
	8.8	6.5	8.1	5.0	14.1	5.0
9/30/1979						
9/30/1980	8.4	6.5	18.5	5.0	24.8	5.0
9/30/1981	0.4	6.5	11.0	5.0	12.1	5.0
9/30/1982	9.2	8.0	4.2	8.0	7.6	8.0
9/30/1983	9.8	8.0	6.5	8.0	9.2	8.0
9/30/1984	10.3	8.0	5.1	8.0	8.4	8.0
9/30/1985	13.7	8.0	5.1	8.0	7.2	8.0
9/30/1986	16.1	8.0	2.8	8.0	4.7	8.0
9/30/1987	14.4	8.0	4.6	8.0	6.0	8.0
9/30/1988	11.2	7.5	8.3	7.0	10.0	8.0
9/30/1989	11.5	7.5	11.8	7.0	12.9	8.0
9/30/1990	10.6	7.5	3.5	7.0	5.8	8.0
9/30/1991	7.9	8.75	2.5	7.0	5.0	8.0
9/30/1992	10.8	8.75	2.9	7.0	5.9	8.0
9/30/1993	7.1	8.75	6.4	7.0	9.9	8.0
9/30/1994	0.9	8.3	N/A ²	5.7	N/A ²	5.7
9/30/1995	14.6	8.3	N/A	N/A	6.5	5.7
9/30/1996	12.3	8.3	N/A	N/A	7.3	5.7
9/30/1997	11.0	8.3	N/A	N/A	7.4	5.7
9/30/1998	10.2	8.3	N/A	N/A	5.0	5.7
9/30/1999	11.0	8.3	N/A	N/A	8.4	5.7
	12.7	8.3	N/A N/A	N/A	5.3	5.7
9/30/2000 9/30/2001	8.1	8.3	N/A N/A	N/A	7.0	5.7
	50 500					
9/30/2002	0.5	8.3	N/A	N/A	7.9	5.7
9/30/2003	5.0	8.3	N/A	N/A	6.9	5.0
9/30/2004	4.4	8.3	N/A	N/A	8.2	6.0
9/30/2005	3.0	8.3	N/A	N/A	9.3	6.1
9/30/2006	6.0	8.3	N/A	N/A	7.0	5.7
9/30/2007	9.6	8.3	N/A	N/A	7.3	5.5
9/30/2008	4.3	8.3	N/A	N/A	5.8	5.7
9/30/2009	(1.0)	8.0	N/A	N/A	3.2	6.6
9/30/2010	5.4	8.0	N/A	N/A	1.9	6.2
9/30/2011	0.8	8.0	N/A	N/A	(0.6)	(1.5) #
9/30/2012	1.9	8.0	N/A	N/A	0.2	1.4 #
9/30/2012	7.2	8.0	N/A	N/A	1.9	5.8
9/30/2013	52.000	essentano.	N/A	N/A	5.8	5.8
	9.8	8.0				17.202.000
9/30/2015	8.5	7.9	N/A	N/A	5.2	4.9
9/30/2016	10.3	7.8	N/A	N/A	7.4	5.0
9/30/2017	9.5	7.7	N/A	N/A	6.2	5.1
9/30/2018	8.3	7.6	N/A	N/A	2.2	4.9
9/30/2019	7.0	7.5	N/A	N/A	3.9	4.7
9/30/2020	8.0	7.5	N/A	N/A	3.1	5.4
Averages	8.1 %		7.0 %		6.8 %	

¹ All members after 9/30/1994.

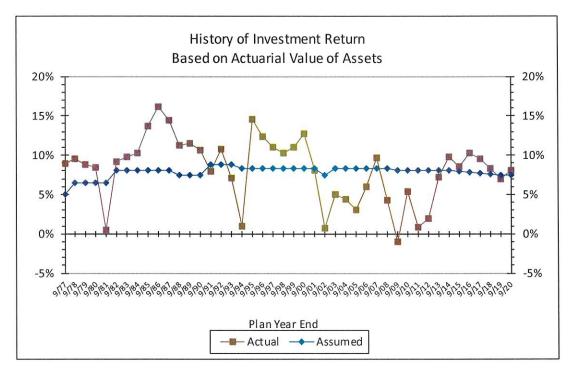
⁴ Reflects no pay increases for general fund members.

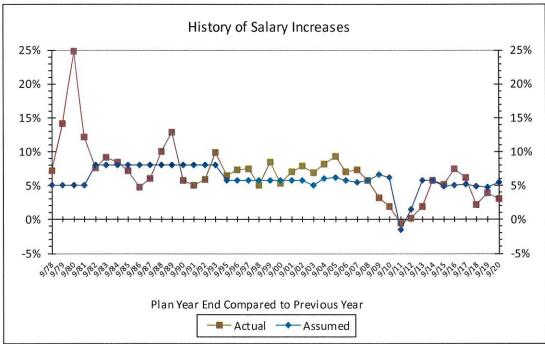


Because the salary basis reported to the actuaries changed from 10/1/1993 to 10/1/1994, a meaningful salary increase figure was not computed.

Reflects a one-time pay reduction for general fund members and no pay increases for non-general fund members.

The actual investment return rates shown on the previous page are based on the actuarial value of assets. The actual salary increase rates shown on the previous page are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.







Actual (A) Compared to Expected (E) Decrements Among Active Employees

Year	Num Add Dur Ye	led ing	DF	ice & ROP ement	Disab Retire	9.5	De	ath	To Vested	erminati Other		als	Active Members End of
Ended	A	E	A	E	A	E	A	E	A	A	A	E	Year
9/30/2010	7	56	26	14	3	3	1	1	13	13	26	26	668
9/30/2011 9/30/2012	12 35	146 47	114 22	16 8	2 3	3 2	1 0	1 1	15 10	14 12	29 22	22 19	534 522
9/30/2013 9/30/2014	41 78	47 57	19 28	7 50	1 1	2 2	0 1	1 1	12 17	15 10	27 27	18 17	516 537
9/30/2015 9/30/2016	86 72	49 40	17 6	9 9	1 1	2	0 1	1 1	6 8	25 24	31 32	26 32	574 606
9/30/2017 9/30/2018	64 57	34 64	16 17	11 12	0	3	1	1	0 7	17 37	17 44	36 39	636 629
9/30/2019	69	106	75	74	0	3	1	1	1	29	30	38	592
9/30/2020 9/30/2021	71	64	35	11 12	0	2	0	1	0	29	29	38 38	599
11-Yr Totals *	592	710	375	221	15	28	6	11	89	225	314	311	

^{*} Totals are through current year.



Valuation Date Active Inactive Inactive Payroll Covered Annombers Payroll 10/1/1991 755 411 \$ 20,630,20 10/1/1992 727 439 20,191,33 10/1/1993 736 469 22,147,88 10/1/1994 587 667 18,757,18 10/1/1995 742 665 24,532,56 10/1/1996 742 668 20,191,33 10/1/1997 739 665 24,532,56 10/1/1998 773 648 25,596,43 10/1/2000 778 648 28,950,26 10/1/2000 878 770 40,421,55 10/1/2004 879 770 40,421,55 10/1/2005 825 851 41,480,55 10/1/2006 825 851 41,080,44 10/1/2007 827 849,731 10/1/2008 777 927 44,084,47 10/1/2010 668 947 38,748,66 10/1/2013 516 1,091	nual 207					
Active Inactive Members* Members 755 411 727 439 736 469 587 667 659 662 739 668 773 648 773 648 778 668 872 745 873 770 874 811 875 770 840 811 825 851 827 885 777 927 668 947 534 1,053 525 1,091 537 1,112 574 1,119 606 1,117	NAC IV	Actuarial Accrued			Employer	
755 411 \$ 727 439 736 469 587 667 659 662 742 656 739 656 773 648 778 668 872 770 878 770 879 770 870 881 871 885 770 881 871 927 668 947 534 1,053 534 1,053 537 1,112 537 1,117	₩.	Actuarial Value of Liability (AAL) - Entry Assets Age	Unfunded AAL (UAAL)	Funded Ratio	Normal Cost (NC)	NC as % of Payroll
727 439 736 469 587 667 659 662 742 656 739 656 773 648 776 648 776 648 777 648 872 745 872 745 879 770 840 811 825 851 827 885 739 900 717 927 668 947 534 1,053 534 1,091 537 1,112 537 1,112		\$ 79,506,348	\$ 2,836,716	96.4 %	\$ 1,043,805	5.06 %
736 469 587 667 659 662 742 656 739 645 773 648 776 648 778 668 872 745 872 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 537 1,112 537 1,112	20,191,327 83,752,649			98.0	860,076	4.26
587 667 659 662 742 656 739 656 773 648 776 648 778 668 872 770 872 770 879 770 879 770 870 881 825 851 827 885 745 900 717 927 668 947 534 1,053 534 1,053 537 1,112 537 1,112	22,147,889 88,296,336	95,668,897	7,372,561	92.3	1,520,178	98.9
659 662 742 656 739 656 773 645 776 648 778 668 872 722 872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 534 1,053 537 1,112 574 1,119		129,179,737	40,242,302	8.89	2,241,185	11.95
742 656 739 656 773 645 776 648 778 668 878 722 872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 534 1,012 537 1,112	21,560,893 100,881,259	135,034,342	34,153,083	74.7	1,507,437	66.9
739 656 773 645 776 648 778 668 872 722 872 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 534 1,053 537 1,112 574 1,119	24,532,562 112,060,623	141,765,578	29,704,955	79.0	1,405,716	5.73
773 645 776 648 778 668 872 722 872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 534 1,091 537 1,112 574 1,119	25,596,439 121,232,151	146,459,241	25,227,090	87.8	1,210,712	4.73
776 648 878 668 872 722 872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 534 1,091 537 1,112 574 1,119 606 1,117	27,581,966 129,407,169	154,243,888	24,836,719	83.9	1,412,197	5.12
778 668 878 722 872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 516 1,091 537 1,112 574 1,113 606 1,117	28,950,262 141,673,440	172,564,633	30,891,193	82.1	1,809,391	6.25
878 722 872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	30,000,733 156,750,497	189,916,733	33,166,236	82.5	1,983,048	6.61
872 745 879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119	36,664,439 164,597,832	213,758,531	49,160,699	77.0	3,810,183	10.39
879 770 840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	38,497,328 175,458,765	233,155,961	57,697,196	75.3	4,123,269	10.71
840 811 825 851 827 885 792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	40,421,513 180,192,031	257,632,743	77,440,712	6.69	4,451,446	11.01
825 851 827 885 792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	41,480,512 185,301,557	275,757,219	90,455,662	67.2	4,704,515	11.34
827 885 792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	41,755,261 195,193,325	303,778,626	108,585,301	64.3	4,949,811	11.85
792 900 717 927 668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	45,999,379 212,980,592	325,892,851	112,912,259	65.4	5,342,240	11.61
534 1,053 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	45,848,717 222,098,827	348,634,231	126,535,404	63.7	6,445,410	14.05
668 947 534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	44,084,422 220,155,870	369,526,337	149,370,467	9.69	5,138,036	11.65
534 1,053 522 1074 516 1,091 537 1,112 574 1,119 606 1,117	38,748,664 223,942,457	351,118,031	127,175,574	63.8	2,971,772	7.67
522 1074 516 1,091 537 1,112 574 1,119 606 1,117	29,823,518 224,237,503	376,225,569	151,988,066	9.69	2,187,628	7.34
516 1,091 537 1,112 574 1,119 606 1,117	29,111,818 217,907,548	387,472,215	169,564,667	56.2	2,191,076	7.53
537 1,112 574 1,119 606 1,117	28,007,058 227,700,385	424,004,184	196,303,799	53.7	2,324,011	8.30
574 1,119 606 1,117	31,028,415 243,861,301	438,745,548	194,884,247	9.55	2,075,371	69.9
606 1,117	34,141,024 262,500,651	452,766,023	190,265,372	58.0	2,304,306	6.75
	37,818,489 288,322,823	483,798,487	195,475,664	9.65	2,704,760	7.15
	41,566,583 311,932,945	502,163,903	190,230,958	62.1	3,155,193	7.59
1,182	37,870,123 334,799,360	564,930,767	230,131,407	59.3	3,675,379	9.71
10/1/2019 592 1,186 40,869,98	40,869,983 341,286,411	565,621,420	224,335,009	60.3	3,868,791	9.47
-	40,789,456 369,068,328	583,426,971	214,358,643	63.3	3,875,138	9.50

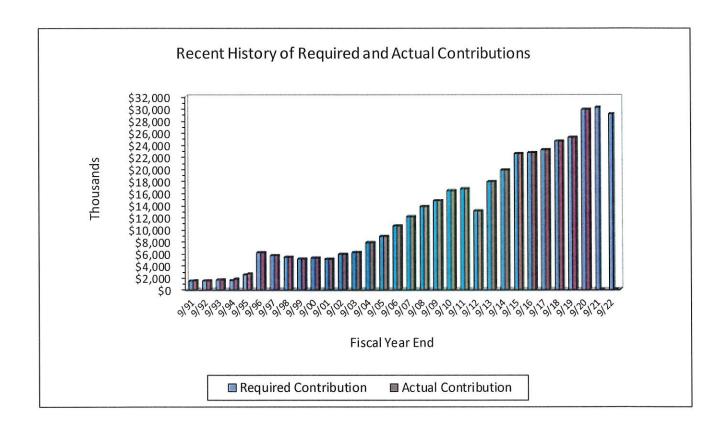
^{*} Excludes transfers. **Reflects Actuarial Impact Statement dated June 17, 2019.



	TIONS			
		Required City Cor		
Valuation	For Fiscal Year Ended	% of		Actual City
Date	September 30	Amount	Payroll	Contribution
10/1/89	1991	\$ 1,437,693	7.43 %	\$ 1,484,132
10/1/90	1992	1,473,155	7.07	1,484,743
10/1/91	1993	1,617,462	7.84	1,623,342
10/1/92	1994	1,554,337	7.70	1,758,060
10/1/93	1995	2,458,234	11.10	2,648,667
10/1/94	1996	6,169,517	32.89	6,169,521
10/1/95	1997	5,647,078	26.19	5,647,180
10/1/96	1998	5,399,263	22.01	5,399,263
10/1/97	1999	5,101,822	19.93	5,101,822
10/1/98	2000	5,256,720	19.06	5,256,720
10/1/99	2001	5,071,643	17.52	5,071,643
10/1/00	2002	5,878,301	18.09	5,878,301
10/1/01	2003	6,164,953	18.09	6,164,953
10/1/02	2004	7,805,841	20.57	7,805,841
10/1/03	2005	8,817,640	22.13	8,817,640
10/1/04	2006	10,559,474	25.24	10,559,474
10/1/05	2007	12,087,074	28.15	12,087,074
10/1/06	2008	13,761,179	31.84	13,761,179
10/1/07	2009	14,743,450	30.97	14,743,450
10/1/08	2010	16,406,324	34.58	16,406,324
10/1/09	2011	16,734,454	36.68	16,734,454
10/1/10	2012	13,050,878	36.14	13,050,878
10/1/11	2013	17,913,508	59.43	17,913,508
10/1/12	2014	19,834,090	67.51	19,834,090
10/1/13	2015	22,547,585	80.30	22,547,585
10/1/14	2016	22,716,242	69.56	22,716,242
10/1/15	2017	23,189,007	66.33	23,189,007
10/1/16	2018	24,580,287	63.11	24,580,287
10/1/17	2019	25,225,862	58.64	25,225,862
10/1/18*	2020	29,845,528	69.92	29,845,528
10/1/19	2021	30,198,278	71.39	
10/1/20	2022	29,112,903	68.96	

^{*}Reflects Actuarial Impact Statement dated June 17, 2019.







ACTUARIAL ASSUMPTIONS AND COST METHOD

Valuation Methods

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement:
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent-of-payroll contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets phases in the difference between the actual return on market value and the expected return on Actuarial Value of Assets at the rate of 20% per year. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section. Both the economic and demographic assumptions were established following the Experience Study Report as of October 1, 2014 covering the five years ending September 30, 2014. The mortality table is based on the assumption used by the Florida Retirement System Pension Plan, as required by Chapter 112.63, Florida Statutes.

Economic Assumptions

The investment return rate assumed in the valuation is 7.3% per year, compounded annually (net after investment expenses).

The **Inflation Rate** assumed in this valuation is 2.5% per year. The Inflation Rate is defined to be the expected long-term rate of increases in the prices of goods and services.

The assumed **real rate of return** over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.3% investment return rate translates to an assumed real rate of return over inflation of 4.8%.



The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 3.5% per year, but not greater than the actual ten-year average. The most recent ten-year average is 0.51%.

Total payroll is projected to the contribution year by applying a 3.5% payroll increase assumption.

Pay increase assumptions for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and the other 2.5% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

The rates of salary increase used are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. To allow for the inclusion of the lump sum payment of unused sick and vacation leave in average final compensation, projected benefits for active members hired before July 15, 2009 are increased by the calculated percentage based on each member's accrued unused sick leave hours as of October 1, 2002 and vacation leave hours as of March 2014 divided by 6,240 hours (equal to 2,080 hours for each year in 3-year averaging period.

	% Increase in Salar		iry
Years of	Merit and	Base	Total
Service	Seniority	(Economic)	Increase
1	5.00 %	2.50 %	7.50
2	4.25	2.50	6.75
3	4.25	2.50	6.75
4	4.25	2.50	6.75
5	4.25	2.50	6.75
6	4.25	2.50	6.75
7	4.25	2.50	6.75
8	4.25	2.50	6.75
9	4.25	2.50	6.75
10	5.50	2.50	8.00
11	0.50	2.50	3.00
12	0.50	2.50	3.00
13	0.50	2.50	3.00
14	0.50	2.50	3.00
15	4.50	2.50	7.00
16	0.50	2.50	3.00
17	0.50	2.50	3.00
18	0.50	2.50	3.00
19	0.50	2.50	3.00
20	2.50	2.50	5.00
21 or more	0.50	2.50	3.00



Demographic Assumptions

The mortality table for healthy lives is the PUB-2010 Headcount Weighted General Below Median Employee Mortality Table (for pre-retirement mortality) and the PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table (for post-retirement mortality), with separate rates for males and females and ages set back one year for males, with mortality improvements projected to all future years after 2010 using Scale MP-2018. These are the same rates used for (non-Teacher) Regular Class members in the July 1, 2019 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

FRS Healthy Post-Retirement Mortality for Regular Class Members

Sample	Probability of Dying Next Year		Future	Life
Attained			Expectance	y (years)
Ages (in 2020)	Men	Women	Men	Women
50	0.19	0.58	33.04	36.86
55	0.97	0.58	28.67	32.42
60	1.15	0.60	24.59	27.89
65	1.29	0.69	20.55	23.32
70	1.80	1.10	16.55	18.85
75	2.88	1.90	12.85	14.66
80	4.87	3.44	9.58	10.92

FRS Healthy Pre-Retirement Mortality for Regular Class Members

Sample	Probability of		Future	Life
Attained	Dying Ne	Dying Next Year		y (years)
Ages (in 2020)	Men	Women	Men	Women
50	0.19	0.11	37.64	40.19
55	0.30	0.17	32.63	35.06
60	0.46	0.26	27.78	30.04
65	0.65	0.37	23.10	25.13
70	0.90	0.57	18.56	20.31
75	1.36	0.94	14.13	15.62
80	2.15	1.59	9.83	11.12

For active transfers, the mortality table used is the PUB-2010 Headcount Weighted Safety Below Median Employee Mortality Table for males (pre-retirement), the PUB-2010 Headcount Weighted Safety Employee Mortality Table for females (pre-retirement), the PUB-2010 Headcount Weighted Safety Below Median Healthy Retiree Mortality Table for males (post-retirement), and the PUB-2010 Safety Healthy Retiree Mortality Table for females (post-retirement), with ages set forward one year for males and females, and with mortality improvements projected to all future years after 2010 using Scale MP-2018. These are the same rates used for Special Risk Class members in the July 1, 2019 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.



FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample	Probability of		Future Life		
Attained	Dying Ne	Dying Next Year		y (years)	
Ages (in 2020)	Men	Women	Men	Women	
50	0.42	0.20	32.40	36.24	
55	0.56	0.36	27.63	31.21	
60	0.93	0.61	23.05	26.43	
65	1.32	0.92	18.80	21.93	
70	2.09	1.45	14.80	17.68	
75	3.56	2.44	11.21	13.75	
80	6.35	4.19	8.14	10.30	

FRS Healthy Pre-Retirement Mortality for Special Risk Class Members

Sample	Probabi	lity of	Future	Life
Attained	Dying Next Year		Expectance	y (years)
Ages (in 2020)	Men	Women	Men	Women
50	0.17	0.11	35.58	39.50
55	0.26	0.16	30.50	34.36
60	0.43	0.22	25.55	29.30
65	0.69	0.30	20.80	24.29
70	1.18	0.55	16.28	19.39
75	2.09	1.08	12.05	14.69
80	6.35	4.19	8.14	10.30

For disabled lives, the mortality table used is the PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, with separate rates for males and females and ages set forward 3 years for both males and females, with no provision being made for future mortality improvements. These are the same rates used for Regular Class members in the July 1, 2019 actuarial valuation of the FRS Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

Sample	Probabili	ty of	Future	Life
Attained	Dying Nex	t Year	Expectanc	y (years)
Ages	Men	Women	Men	Women
50	2.02 %	1.64 %	20.99	23.92
55	2.53	1.91	18.18	20.88
60	3.08	2.27	15.50	17.88
65	3.93	2.83	12.94	14.91
70	5.08	3.79	10.53	12.07
75	6.98	5.46	8.29	9.45
80	10.12	8.31	6.33	7.19



The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Members Hired Before July 15, 2009

Number of Years After	Probability of Normal Retirement			
First Eligibility for Normal	For 55 and 5	For 25 and Out		
Retirement	Retirement	Retirement		
0	20 %	30 %		
1	5	20		
2	5	20		
3	5	20		
4	5	20		
5	5	100		
6	5	100		
7	25	100		
8	10	100		
9	10	100		
10	50	100		
11	50	100		
12	50	100		
13	50	100		
14	50	100		
15	100	100		



Members Hired On or After July 15, 2009 and Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund

Probability of Normal Retirement for 60 and 7

Age	Retirement**
60	50 %
61	30
62	30
63	55
64	40
65	40
66	40
67	50
68	10
69	10
70	30
71+	100

^{**} For members hired on or after July 15, 2009 and before October 1, 2011 for general fund members or before March 5, 2014 for non-general fund members, 100% probability of retirement is assumed upon attaining age 57 with 25 years of service or upon attaining 30 years of service regardless of age.

General Fund Members Hired After September 30, 2011 and Non-General Fund Members Hired After March 5, 2014

Voors	-4	C	
Years	OT	ser	vice

Age	7 - 14	15 - 19	20 - 24	25 - 29	30+*
60	0.0 %	0.0 %	0.0 %	0.0 %	30.0 %
61	0.0	0.0	0.0	0.0	30.0
62	0.0	0.0	0.0	100.0	100.0
63	0.0	0.0	0.0	100.0	100.0
64	0.0	0.0	0.0	100.0	100.0
65	30.0	40.0	50.0	100.0	100.0
66	30.0	30.0	30.0	100.0	100.0
67	30.0	30.0	30.0	100.0	100.0
68	30.0	30.0	30.0	100.0	100.0
69	30.0	30.0	30.0	100.0	100.0
70	100.0	100.0	100.0	100.0	100.0

^{*} Upon attaining 30 years of service, the retirement rates for the first and second years of eligibility are 30% and the rate for the third year is 100% (regardless of age).



Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample	Years of	% of Active Members
Ages	Service	Separating Within Next Year
ALL	0	13.0 %
	1	12.0
	2	12.0
	3	11.0
	4	10.0
20	5 & Over	12.0
25		12.0
30		12.0
35		8.0
40		3.8
45		2.0
50		2.0
55		2.0
60		2.0

Rates of disability among active members (25% of disabilities are assumed to be service-connected).

Sample	% Becoming Disabled
Ages	Within Next Year
20	0.06 %
25	0.08
30	0.10
35	0.13
40	0.17
45	0.27
50	0.46
55	0.86
60	1.49

Changes Since Previous Valuation

The investment return assumption was lowered from 7.5% to 7.3%.

Assumed mortality rates were revised to be the same as those employed by the Florida Retirement System (FRS) Pension Plan in its July 1, 2020 actuarial valuation, as prescribed by Florida Statutes 112.63(1)(f). This statute requires valuations performed after January 1, 2016 for retirement plans sponsored by Florida governmental entities to use mortality rates that were employed by FRS in one of its two most recent valuations. Rates used in this valuation are based on the experience study performed by the Florida Retirement System for the period ending June 30, 2018, which was first adopted in its July 1, 2019 valuation.

Additionally, the amortization period for new Unfunded Actuarial Accrued Liability (UAAL) bases was lowered from 30 years to 29 years, and will continue to be lowered by one year for each year until reaching 25 years.



Miscellaneous and Technical Assumptions

Administrative & Investment

Expenses

The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year's expenses. Assumed administrative

expenses are added to the Normal Cost.

Benefit Service Exact fractional service is used to determine the amount of benefit

payable.

COLA The COLA delay is 3 years for projected benefits of active members

who are not eligible to enter the DROP. The COLA delay is assumed to be 6 years for current DROP members who entered the DROP after

August 17, 2009.

Data Assumptions/

Adjustments

Where complete participant data was not available, we have used data assumptions which we believe are reasonable and internally

consistent.

Decrement Operation Disability and mortality decrements operate during retirement

eligibility.

Decrement Timing Decrements of all types are assumed to occur at the beginning of the

year.

Eligibility Testing Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the decrement is

assumed to occur.

For vested separations from service, it is assumed that 0% of

members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or

the member's accumulated contributions.

Incidence of Contributions Employer contributions are assumed to be made in equal installments

biweekly throughout the year. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual

payroll payable at the time contributions are made.

Marriage Assumption 100% of males and 100% of females are assumed to be married for

purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member

valuation purposes.



Maximum Benefit

The maximum accrued benefit payable as a life annuity reflects the 415(b) limit (\$230,000 for 2020 for ages 62 through 65). The limitation is projected to increase by 4.0% per year and is adjusted for other commencement ages based on IRS regulations.

Normal Form of Benefit

A life annuity is the normal form of benefit.

Pay Increase Timing

Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

Planned Retirement Program

Eligible members are assumed to first elect the Planned Retirement Program once they are five years past their earliest normal retirement date.

Employees who enter the Planned Retirement Program are assumed to elect the following benefit with the greatest value:

- Value of the normal retirement benefit
- Value of the one to five year Planned Retirement Program benefit. For example, a five year Planned Retirement Program present value is calculated as the accumulated value of the accrued benefit from five years ago plus the present value of this reduced benefit.

The deposits to the Planned Retirement Program accounts are credited with an assumed interest rate of 5.6% per year.

Pre-Funding of Supplemental Pension Distribution Projected benefits for members eligible for the Supplemental Pension Distribution currently and in the future are loaded by 5.7% to recognize the effect of the Supplemental Pension Distribution in years when the investment return is above 12.0% (i.e., 4.7% above the assumed rate).

Service Credit Accruals

It is assumed that members accrue one year of service credit per year.

Sick and Vacation Leave

To allow for the inclusion of the lump sum payment of unused sick and vacation leave in average final compensation, projected benefits for active members hired before July 15, 2009 are increased by the calculated percentage based on each member's accrued unused sick leave hours as of October 1, 2002 and vacation leave hours as of March 2014 divided by 6,240 hours (equal to 2,080 hours for each year in 3-year averaging period).



GLOSSARY

Actuarial Accrued Liability

(AAL)

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Equivalent

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

Actuarial Present Value (APV)

The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.

Actuarial Present Value of Future Benefits (APVFB)

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

Actuarial Valuation

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

Actuarial Value of Assets

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



Amortization Method

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

Amortization Payment

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

Amortization Period

The period used in calculating the Amortization Payment.

Actuarially Determined Contribution (ADC)

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

Closed Amortization Period

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

Employer Normal Cost

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

Equivalent Single Amortization Period

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

Experience Gain/Loss

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



Funded Ratio

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

GASB

Governmental Accounting Standards Board.

GASB Statement No. 67 and GASB Statement No. 68

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

Normal Cost

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

Open Amortization Period

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

Unfunded Actuarial Accrued Liability

The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

Valuation Date

The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.



SECTION C

PENSION FUND INFORMATION

Statement of Plan Assets at Market Value

		Septeml	ber 3	0
Item	-	2020		2019
A. Cash and Cash Equivalents (Operating Cash)	\$.=	\$.
B. Receivables				
1. Member Contributions	\$	-	\$	155,408
2. Employer Contributions		18,085,970 *		12,486,625
3. Investment Income and Other Receivables	-	334,584	***************************************	165,991
4. Total Receivables	\$	18,420,554	\$	12,808,024
C. Investments				
1. Money Market Shares	\$	9,040,245	\$	8,382,553
2. Corporate Equities		11,921,866		14,174,422
3. Corporate Bonds		=		=
4. U.S. Government Securities		-		-
5. Mutual Funds		221,399,064		218,753,289
6. Pooled Investment Funds		112,510,754		99,848,577
7. Total Investments	\$	354,871,929	\$	341,158,841
D. Liabilities				
1. Benefits Payable	\$	(446,842)	\$	(4,299,167)
2. Prepaid City Contributions		(2,495,119)		-
3. Accrued Expenses and Other Payables		(664,677)		(3,794,528)
4. Total Liabilities	\$	(3,606,638)	\$	(8,093,695)
E. Total Market Value of Assets Available for Benefits	\$	369,685,845	\$	345,873,170
F. DROP Accounts	\$	(6,012,841)	\$	(8,414,980)
G. Market Value Net of Reserves	\$	363,673,004	\$	337,458,190
H. Allocation of Investments				
 Money Market Shares 		2.5%		2.5%
2. Corporate Equities		3.4%		4.2%
3. Corporate Bonds		0.0%		0.0%
4. U.S. Government Securities		0.0%		0.0%
5. Mutual Funds		62.4%		64.0%
6. Pooled Investment Funds		31.7%		29.3%
7. Total Investments		100.0%		100.0%

 $^{^{*}}$ Includes the \$13,423,122 City contribution receivable due to the previous City contribution shortfall, as detailed in Section A. This amount is being paid off over five years starting October 1, 2020.



Reconciliation of Plan Assets

	Septemb	oer 30	
Item	2020		2019
A. Market Value of Assets at Beginning of Year	\$ 345,873,170	\$	341,340,499
B. Revenues and Expenditures			
1. Contributions			
a. Employee Contributions	\$ 3,635,402	\$	3,561,448
b. City Contributions	29,815,790 *		25,199,128
c. City Contribution - 2012 SPD	23		4,299,167
d. County Contributions	29,738		26,734
e. Total	\$ 33,480,930	\$	33,086,477
2. Investment Income			
a. Interest, Dividends, and Other Income	\$ 4,964,406	\$	5,344,656
b. Net Realized/Unrealized Gains/(Losses)**	21,551,652		9,259,446
c. Investment Expenses	(785,676)		(732,217)
d. Net Investment Income	\$ 25,730,382	\$	13,871,885
3. Benefits and Refunds			
a. Regular Monthly Benefits	\$ (29,051,230)	\$	(35,041,379)
b. Refunds	(425,409)		(539,713)
c. DROP Distributions	(5,190,976)		(1,821,383)
d. Supplemental Pension Distribution (2012)			(4,299,167)
e. Total	\$ (34,667,615)	\$	(41,701,642)
4. Administrative and Miscellaneous Expenses	\$ (731,022)	\$	(724,049)
5. Transfers	\$ -	\$	-
C. Market Value of Assets at End of Year	\$ 369,685,845	\$	345,873,170
D. DROP Accounts	\$ (6,012,841)	\$	(8,414,980)
E. Market Value Net of Reserves	\$ 363,673,004	\$	337,458,190

^{*} Includes \$13,423,122 City contribution receivable as detailed in Section A.



^{**} The breakdown between realized and unrealized gains/(losses) was not provided.

38

Development of Actuarial Value of Assets

	Fiscal Year Ending September 30	2019	2020	2021	2022	2023	2024
Ą	Actuarial Value of Assets Beginning of Year	\$ 336,136,059	\$ 349,701,391				
В.	Market Value End of Year	345,873,170	369,685,845				
ن	Market Value Beginning of Year	341,340,499	345,873,170				
Ö.	Non-Investment/Administrative Net Cash Flow	(9,339,214)	(1,917,707)				
ш	Investment Income						
	E1. Actual Market Total: B-C-D	13,871,885	25,730,382				
	E2. Assumed Rate of Return	7.50%	7.50%	7.30%	7.30%	7.30%	7.30%
	E3. Assumed Amount of Return	24,859,984	26,155,690				
	E4. Amount Subject to Phase-In: E1–E3	(10,988,099)	(425,308)				
щ.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.2 x E4	(2,197,620)	(85,062)				
	F2. First Prior Year	(351,162)	(2,197,620)	(85,062)			
	F3. Second Prior Year	2,240,102	(351,162)	(2,197,620)	(85,062)		
	F4. Third Prior Year	1,535,536	2,240,102	(351,162)	(2,197,620)	(85,062)	
	F5. Fourth Prior Year	(3,182,296)	1,535,537	2,240,104	(351,162)	(2,197,618)	(85,060)
	F6. Total Phase-Ins	(1,955,438)	1,141,795	(393,740)	(2,633,844)	(2,282,680)	(85,060)
9	Actuarial Value of Assets End of Year						
	G1. Preliminary Actuarial Value of Assets End of Year:						
	A+D+E3+F6	\$ 349,701,391	\$ 375,081,169				
	G2. Upper Corridor Limit: 120% x B	415,047,804	443,623,014				
	G3. Lower Corridor Limit: 80% x B	276,698,536	295,748,676				
	G4. Actuarial Value of Assets End of Year	349,701,391	375,081,169				
	G5. DROP Accounts	(8,414,980)	(6,012,841)				
	G6. Final Actuarial Value of Assets End of Year	341,286,411	369,068,328				
Ï	Difference between Market & Actuarial Value of Assets	(3,828,221)	(5,395,324)				
-	Actuarial Rate of Return	7.04%	8.04%				
٠;	Market Value Rate of Return	4.20%	7.66%				
곳	Ratio of Actuarial Value of Assets to Market Value	101.11%	101.46%				



Reconciliation of DROP Accounts

Year	Balance at					Delever
Ended 9/30	Beginning of Year	Adjustment	Credits	Interest	Distributions	Balance at End of Year
2009	\$6,528,104	\$ -	\$2,274,151	\$419,340	\$ (1,708,212)	\$7,513,383
2010	7,513,383	-	2,973,674	585,319	(1,099,439)	9,972,937
2011	9,972,937	4,989	3,882,345	266,041	(2,612,900)	11,513,412
2012	11,513,412	8	5,203,864	1,494,309	(4,659,576)	13,552,009
2013	13,552,009	<u> </u>	4,668,559	1,628,934	(4,190,755)	15,658,747
2014	15,658,747	+	3,937,061	1,510,901	(5,811,164)	15,295,545
2015	15,295,545	6,075	3,135,456	385,571	(5,183,264)	13,639,383
2016	13,639,383	-	1,621,561	626,094	(12,503,182)	3,383,856
2017	3,383,856	=	352,814	152,609	(1,100,372)	2,788,907
2018	2,788,907	_	208,776	48,155	(1,709,139)	1,336,699
2019	1,336,699	1,969	8,016,654	881,041	(1,821,383)	8,414,980
2020	8,414,980	(88,679)	2,409,734	467,782	(5,190,976)	6,012,841



Investment Rate of Return

	investment	Kate of Keturn
Year Ended	Market Value Basis	Actuarial Value Basis
9/30/1977	8.5 %	8.9 %
9/30/1978	4.2	9.5
9/30/1979	1.3	8.8
9/30/1980	0.7	8.4
9/30/1981	(2.4)	0.4
9/30/1982	34.9	9.2
9/30/1983	16.5	9.8
9/30/1984	8.2	10.3
9/30/1985	22.5	13.7
9/30/1986	16.5	16.1
9/30/1987	3.0	14.4
9/30/1988	11.9	11.2
9/30/1989	11.0	11.5
9/30/1990	6.0	10.6
9/30/1991	16.2	7.9
9/30/1992	12.2	10.8
9/30/1993	7.5	7.1
9/30/1994	(0.3)	0.9
9/30/1995	21.3	14.6
9/30/1996	13.4	12.3
9/30/1997	17.8	11.0
9/30/1998	5.4	10.2
9/30/1999	12.8	11.0
9/30/2000	17.9	12.7 8.1
9/30/2001	(8.5)	
9/30/2002	(8.6)	0.5
9/30/2003	17.4	5.0
9/30/2004 9/30/2005	8.7 9.2	4.4 3.0
9/30/2005	9.2 7.1	6.0
5 1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
9/30/2007	11.9	9.6
9/30/2008	(13.6)	4.3
9/30/2009	(2.4)	(1.0)
9/30/2010	8.5	5.4
9/30/2011	0.0	0.8
9/30/2012	19.8	1.9
9/30/2013	14.0	7.2
9/30/2014	11.0	9.8
9/30/2015	1.8	8.5
9/30/2016	10.5	10.3
9/30/2017	11.5	9.5
9/30/2018	6.8	8.3
9/30/2019	4.2	7.0
9/30/2020	7.7	8.0
Average Returns:		
Last 5 Years	8.1 %	8.6 %
Last 10 Years	8.6 %	7.1 %
All Years Shown	8.4 %	8.1 %
All Tears Shown	5.4 70	0.1 70

The above rates are based on the Retirement Fund's 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.



SECTION D

FINANCIAL ACCOUNTING INFORMATION

	FASB STATEMENT NO. 35 INFORMATION						
A.	Valuation Date	October 1, 2020	October 1, 2019				
В.	Actuarial Present Value of Accumulated Plan Benefits						
	1. Vested Benefits						
	 a. Members Currently Receiving Payments b. Terminated Vested Members c. Other Members d. Total 	\$ 462,002,676 6,861,309 87,297,208 556,161,193	\$ 434,839,423 10,018,566 90,997,141 535,855,130				
	2. Non-Vested Benefits	8,256,008	2,715,698				
	 Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2 	564,417,201	538,570,828				
	4. Accumulated Contributions of Active Members	23,086,919	23,278,960				
C.	Changes in the Actuarial Present Value of Accumulated Plan Benefits						
	1. Total Value at Beginning of Year	538,570,828	502,188,168				
	Increase (Decrease) During the Period Attributable to:						
	a. Plan Amendment	0	42,679,978				
	b. Change in Actuarial Assumptionsc. Latest Member Data, Benefits Accumulated	1,830,958	0				
	and Decrease in the Discount Period	55,901,788	41,599,595				
	d. Benefits Paid (Net Basis)	(31,886,373)	(47,896,913)				
	e. Net Increase	25,846,373	36,382,660				
	3. Total Value at End of Period	564,417,201	538,570,828				
D.	Market Value of Assets	363,673,004	337,458,190				
E.	Actuarial Assumptions - See page entitled Actuarial Assumptions and Cost Method						



SECTION E

MISCELLANEOUS INFORMATION

	RECONCILIATION OF MEMBERSHIP	P DATA	
		From 10/1/19 To 10/1/20	From 10/1/18 To 10/1/19
A.	Active Members		
5. 6. 7. 8.	Number Included in Last Valuation New Members Included in Current Valuation Non-Vested Employment Terminations Vested Employment Terminations Service Retirements DROP Retirements Disability Retirements Deaths Other - Rehires/Data Corrections	592 71 (29) 0 (12) (23) 0 0	629 68 (29) (1) (11) (64) 0 (1) 1
10.	Number Included in This Valuation	599	592
В.	Active Transfers		
2. 3. 4. 5. 6. 7.	Number Included in Last Valuation Additions Non-Vested Employment Terminations Vested Employment Terminations Service Retirements DROP Retirements Deaths Number Included in This Valuation	11 0 0 0 0 0 (2) 0	18 0 0 0 (1) (6) 0
C.	Terminated Vested Members		
3. 4. 5. 6.	Number Included in Last Valuation Additions from Active Members Lump Sum Payments/Refund of Contributions Payments Commenced Deaths Other - Rehires/Data Corrections Number Included in This Valuation	69 0 (1) (13) 0 (1) 54	77 1 (2) (6) 0 (1) 69
D.	DROP Plan Members		
2. 3. 4. 5. 6.	Number Included in Last Valuation Additions from Active Members and Transfers Retirements Deaths Resulting in No Further Payments Other - Data Corrections Number Included in This Valuation	52 25 (16) 0 0 61	7 70 (25) 0 0 52
E.	Service Retirees, Disability Retirees and Beneficiaries		
1. 2. 3. 4. 5. 6. 7. 8. 9.	Number Included in Last Valuation Additions from Active Members and Transfers Additions from Terminated Vested Members Additions from DROP Plan Members Deaths Resulting in No Further Payments Deaths Resulting in New Survivor Benefits End of Certain Period - No Further Payments Other - Data Corrections Number Included in This Valuation	1,065 12 13 16 (31) 1 0 (1) 1,075	1,039 12 6 25 (18) 1 0 0



ACTIVE PARTICIPANT SCATTER

					Years o	of Service t	to Valuatio	n Date					
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Up	Totals
-													
15-19	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	5	4	1	1	0	0	0	0	0	0	0	0	11
25-29	14	6	6	4	2	3	0	0	0	0	0	0	35
30-34	9	4	10	8	8	16	1	0	0	0	0	0	56
35-39	10	9	4	9	7	16	1	7	0	0	0	0	63
40-44	6	5	3	3	5	23	4	12	4	0	0	0	65
45-49	9	6	3	3	7	19	5	14	15	1	0	0	82
50-54	5	4	6	4	5	22	10	20	20	7	0	0	103
55-59	8	9	6	4	9	25	13	13	21	8	1	0	117
60-64	3	3	2	1	4	13	4	8	6	0	1	0	45
65 & Up	2	2	0	3	4	4	1	5	0	1	0	0	22
Totals	71	52	41	40	51	141	39	79	66	17	2	0	599



INACTIVE PARTICIPANT SCATTER

			Ī					sed with
	Termina	ted Vested	Di	sabled	R	etired	Ben	eficiary
		Total		Total		Total		Total
Age Group	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	-	-	-	20	2		_	-
20-24	-	-	-	-	-	-	-	=
25-29	-		-	-	-	=:	-	-
30-34	-	1-	-	-	-	-	6	103,698
35-39	5	55,781	-	_	-	<u>-</u> 0	5	39,665
40-44	10	102,569	1	11,339	1	88,767	5	56,346
45-49	12	301,083	2	58,909	8	257,938	10	98,042
50-54	23	298,042	2	60,311	43	1,704,635	4	81,252
55-59	1	6,699	3	96,739	145	5,965,436	14	224,998
60-64	3	17,181	13	410,381	180	6,772,894	14	226,330
65-69	-	-	9	320,240	194	6,662,749	17	373,024
70-74		.=	6	158,239	155	4,641,826	22	422,920
75-79	:-		3	44,915	108	2,838,768	17	370,027
80-84	72	-	2	31,945	48	1,312,965	19	321,242
85-89	-		-	·	31	811,169	12	236,825
90-94	-	-	1	10,358	19	411,361	10	165,710
95-99	-	3 <u>-</u>	_	-	3	60,653	4	16,538
100 & Over	-	-	-	-	-	-	-	-
Total	54	781,355	42	1,203,376	935	31,529,161	159	2,736,617
			100,000				Constitution of California	
Average Age		49		66		69		69



SECTION F

SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

The Plan was established under the Code of Ordinances for the City of Hollywood, Florida, and was most recently restated under Ordinance No. O-2003-07, passed and adopted on June 4, 2003. The Plan was most recently amended under Ordinance No. O-2019-14, adopted on June 19, 2019. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

B. Effective Date

October 1, 1958

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 regular full-time employees who are contributing to the pension plan.

F. General Fund Member

Any member paid out of the City's general fund and/or other City funds, with the exception of the water and sewer utility, storm water utility, parking and sanitation funds.

G. Credited Service

Service rendered to the City for which the member has received Compensation and has made contributions to the fund. No service is credited for any periods of employment for which the member received a refund of employee contributions.

H. Compensation

Members Hired Prior to July 15, 2009

Gross wages received from the City, including overtime and excluding payouts for blood time and compensatory time. Compensation includes payments for accumulated sick leave not to exceed the amount accumulated as of October 1, 2002. Compensation includes payments for accumulated annual leave not to exceed the amount accumulated as of March 2014 and limited to 125 hours for employees covered by a bargaining unit and are limited to 60 hours for employees not covered by a bargaining unit.



Members Hired on or After July 15, 2009

Compensation includes only base pay and longevity pay.

I. Average Final Compensation (AFC)

Members Hired Prior to July 15, 2009

The average of Compensation over the highest 78 consecutive biweekly pay periods of Credited Service prior to termination or retirement.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

The average of Compensation over the highest 104 consecutive biweekly pay periods of Credited Service prior to termination or retirement.

<u>Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-</u>General Fund

The average of Compensation over the highest 130 consecutive biweekly pay periods or the last 260 biweekly pay periods of Credited Service prior to termination or retirement.

J. Normal Retirement

Members Hired Prior to July 15, 2009

Eligibility: A member may retire upon attaining age 55 with 5 years of Credited Service or upon

attaining 25 years of Credited Service regardless of age.

Benefit: 3.0% of AFC multiplied by years of Credited Service, up to 81% of AFC.

Normal Form

of Benefit: Single Life Annuity; other options are also available.

COLA: 2.0% per year commencing 3 years after retirement benefits begin.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

Eligibility: A member may retire upon attaining age 60 with 7 years of Credited Service, upon

attaining age 57 with 25 years of Credited Service, or upon attaining 30 years of Credited

Service regardless of age.

Benefit: 2.5% of AFC multiplied by years of Credited Service, up to 81% of AFC.



Normal Form

of Benefit:

Single Life Annuity; other options are also available.

COLA:

None.

<u>Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund</u>

Eligibility:

A member may retire upon attaining age 65 with 7 years of Credited Service, age 62 with

25 years of Credited Service, or 30 years of Credited Service regardless of age.

Benefit:

2.5% of AFC multiplied by years of Credited Service, up to 81% of AFC.

Normal Form

of Benefit:

Single Life Annuity; other options are also available.

COLA:

None.

K. Early Retirement

None.

L. Delayed Retirement

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

M. Service Connected Disability

Members Hired Prior to July 15, 2009

Eligibility:

Any member who becomes totally and permanently disabled and unable to perform the

specific duties of the member's position as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit:

75% of salary.

Normal Form

of Benefit:

Single Life Annuity; or until recovery from disability.

COLA:

2.0% per year commencing 3 years after retirement benefits begin. Members hired on or

after July 15, 2009 are not eligible for the COLA.



Members Hired on or After July 15, 2009

Eligibility:

Any member who becomes totally and permanently disabled and unable to perform the

specific duties of the member's position as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit:

75% of salary.

Normal Form

of Benefit:

Single Life Annuity; or until recovery from disability.

COLA:

None.

N. Non-Service Connected Disability

Members Hired Prior to July 15, 2009

Eligibility:

Any member with 5 years of Credited Service who becomes totally and permanently disabled and unable to perform the specific duties of the member's position is

immediately eligible for a disability benefit.

Benefit:

The greater of:

(1) Accrued Normal Retirement Benefit taking into account Compensation earned and

service credited until the date of disability, or

(2) 20% of AFC.

Normal Form

of Benefit:

Single Life Annuity; or until recovery from disability.

COLA:

2.0% per year commencing 3 years after retirement benefits begin. Members hired on or

after July 15, 2009 are not eligible for the COLA.

Members Hired on or After July 15, 2009

Eligibility:

Any member with 7 years of Credited Service who becomes totally and permanently

disabled and unable to perform the specific duties of the member's position is

immediately eligible for a disability benefit.

Benefit:

The greater of:

(1) Accrued Normal Retirement Benefit taking into account Compensation earned and

service credited until the date of disability, or

(2) 20% of AFC.

Normal Form

of Benefit:

Single Life Annuity; or until recovery from disability.

COLA:

None.



O. Death in the Line of Duty

Members Hired Prior to July 15, 2009

Eligibility: Members are

Members are eligible for survivor benefits after the completion of 5 years of Credited

Service.

Benefit:

The benefit payable to the spouse determined as though the deceased member had

retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form

of Benefit:

Single Life Annuity.

COLA:

2.0% per year commencing 3 years after retirement benefits begin. Members hired on or

after July 15, 2009 are not eligible for the COLA.

The designated beneficiary of a plan member with less than 5 years of Credited Service will receive a refund of the member's accumulated contributions.

Members Hired on or After July 15, 2009

Eligibility:

Members are eligible for survivor benefits after the completion of 7 years of Credited

Service.

Benefit:

The benefit payable to the spouse determined as though the deceased member had

retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form

of Benefit:

Single Life Annuity.

COLA:

None.

The designated beneficiary of a plan member with less than 7 years of Credited Service will receive a refund of the member's accumulated contributions.

P. Other Pre-Retirement Death

Members Hired Prior to July 15, 2009

Eligibility:

Members are eligible for survivor benefits after the completion of 5 years of Credited

Service.

Benefit:

The benefit payable to the spouse determined as though the deceased member had

retired on the date of death and had chosen a 100% joint and survivor annuity.



Normal Form

of Benefit:

Single Life Annuity.

COLA:

2.0% per year commencing 3 years after retirement benefits begin. Members hired on or

after July 15, 2009 are not eligible for the COLA.

The designated beneficiary of a plan member with less than 5 years of Credited Service will receive a refund of the member's accumulated contributions.

Members Hired on or After July 15, 2009

Eligibility:

Members are eligible for survivor benefits after the completion of 7 years of Credited

Service.

Benefit:

The benefit payable to the spouse determined as though the deceased member had

retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form

of Benefit:

Single Life Annuity.

COLA:

None.

The designated beneficiary of a plan member with less than 7 years of Credited Service will receive a refund of the member's accumulated contributions.

Q. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

R. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are the 5, 10 and 20 Year Certain and Life Annuity options and the 50% and 100% Joint and Survivor options. Members who are eligible for normal retirement may elect to receive a Partial Lump Sum of up to 25% of the present value of the benefit with the remainder as a monthly benefit. The lump sum amount is calculated using the Plan's definition of actuarial equivalence.

S. Vested Termination

Members Hired Prior to July 15, 2009

Eligibility:

A member has earned a non-forfeitable right to Plan benefits after the completion of 5

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 (age 60 for members hired on or after July 15,

2009).



Normal Form

of Benefit: Single Life Annuity; other options are also available.

COLA: 2.0% per year commencing 3 years after retirement benefits begin. Members hired on or

after July 15, 2009 are not eligible for the COLA.

Members terminating employment with less than 5 years of Credited Service will receive a refund of their own accumulated contributions.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 7

years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of

termination. Benefit begins at 60.

Normal Form

of Benefit: Single Life Annuity; other options are also available.

COLA: None.

Members terminating employment with less than 7 years of Credited Service will receive a refund of their own accumulated contributions.

Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 7

years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of

termination. Benefit begins at 65.

Normal Form

of Benefit: Single Life Annuity; other options are also available.

COLA: None.

Members terminating employment with less than 7 years of Credited Service will receive a refund of their own accumulated contributions.



T. Refunds

Eligibility:

All members terminating non-vested are eligible. Optionally, vested members may elect

a refund in lieu of the vested benefits otherwise due.

Benefit:

A refund of the member's contributions with simple interest at 4% per year through date

of separation.

U. Member Contributions

Members Hired Prior to July 15, 2009

9.0% of Compensation.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

9.0% of Compensation.

Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund

8.0% of Compensation.

V. Employer Contributions

The amount determined by the actuary needed to fund the Plan properly according to State laws.

W. Cost of Living Increases

Members Hired Prior to July 15, 2009

2.0% per year commencing 3 years after retirement benefits begin. For Members who enter the DROP, the COLA begins 1 year after separation of employment, if later.

Members Hired on or After July 15, 2009

Members hired on or after July 15, 2009 are not eligible for the COLA.

X. Deferred Retirement Option Plan (DROP)

Members Hired Prior to July 15, 2009

Eligibility:

A member may enter the DROP upon attaining age 55 with 10 years of Credited Service

or upon attaining 25 years of Credited Service regardless of age, but before completing

30 years of Credited Service.



Benefit: The member's Credited Service and AFC 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 AFC.

Maximum

DROP Period: 5 years but no later than completion of 32 years of Credited Service.

Interest

Credited: The member's DROP account is credited with interest at the same rate as the net rate of

investment return on plan assets.

Normal Form

of Benefit: Lump Sum or Direct Rollover.

COLA: 2.0% per year commencing 3 years after DROP payments begin or 1 year after separation

of employment, if later.

Members Hired on or After July 15, 2009

Members hired on or after July 15, 2009 are not eligible to enter the DROP.

Y. Planned Retirement Program

The Planned Retirement Program is available for members who were hired before July 15, 2009 and offers the following features:

- A member may backdrop for up to five years but not prior to the date when normal retirement eligibility was attained
- The retirement benefit is calculated based on service and average final compensation at the retroactive Planned Retirement Program date
- The Planned Retirement Program deposits are credited with interest according to the following schedule:
 - If the Plan's return is negative, the member shares in the losses
 - If the Plan's funded ratio is below 80%, the member receives the first 4%, the Plan receives the next 2%, and the member receives any additional earnings above 6%
 - If the Plan's funded ratio is between 80% and 90%, the member receives the first 4%, the Plan receives the next 1%, and the member receives any additional earnings above 5%
 - If the Plan's funded ratio is above 90%, the member receives the full Plan return



Z. Supplemental Pension Distribution

The Plan provides that a supplemental pension distribution may be paid to eligible benefit recipients if the market value rate of return exceeds the assumed rate of return plus 4.5% (effective as of October 1, 2007). An eligible recipient is any member employed by the City on October 1, 2002, any member receiving benefits on that date, and any spouse of deceased members receiving benefits on that date. The Supplemental Pension Distribution is not payable while an eligible recipient participates in the DROP. The total Supplemental Pension Distribution is equal to the actuarial present value of future retirement benefits with respect to eligible recipients multiplied by the excess (not to exceed 2%) of the net market rate of return over the assumed rate of return plus 4.5%. The amount allocated to each eligible recipient is determined by multiplying the total Supplemental Pension Distribution by each individual member's years of Credited Service divided by total years of Credited Service for all recipients. Credit Service is limited to 25 years.

AA. Transfers

Members who transfer to another City plan are eligible to receive benefits from this Plan. The employee contributions for transferred members remain in the fund. The benefit is based on the Credited Service accrued under this Plan, the multiplier in effect at the date of transfer, and the Compensation earned through date of termination or DROP participation. Eligibility for benefits is based on all service. Death and disability benefits are not payable from this Plan after the date of transfer. Members hired on or after July 15, 2009 who transfer to another City plan are treated as terminated employees.

AB. Other Ancillary Benefits

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

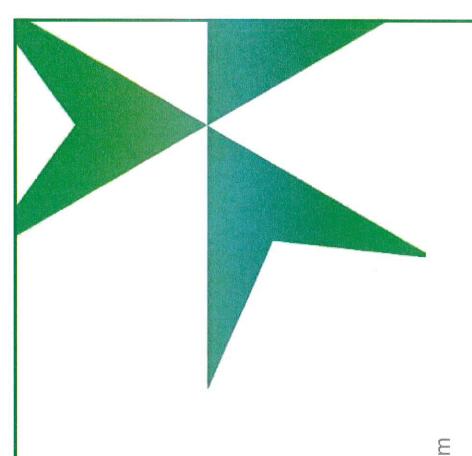
AC. Changes from Previous Valuation

None.



AGENDA ITEM 5.A. INVESTMENT

APRIL 2021 FLASH PERFORMANCE REPORT



City of Hollywood Employees' Retirement System

Monthly Flash Report

Period Ending April 30, 2021

J. Keith Reynolds Vice President & Senior Consultant

Felicia Ewell Senior Associate **X**Segal Marco Advisors

Market Environment – April 2021

April Highlights

- economists. Supply chain issues and worker shortages in some industries may ☐ The U.S. unemployment rate rose to 6.1%. The U.S. economy gained only 266,000 jobs in the month, far short of the million or more predicted by nospitality sectors but was offset by declines in manufacturing and retail. bear part of the blame for the disappointing number. Hiring rose most in
- nationwide vaccination efforts. Large caps were the biggest gainers, though every capitalization size was positive. Real estate (+8.3%) was the best □ U.S. stocks gained again in April, as reopenings continued with ongoing performing sector.
- Developed market stocks gained with hopes for a global economic recovery still high, though vaccination rates among European countries varied. Emerging market stocks rose with a weaker USD.
- Treasuries rose in April as the Fed reiterated its support for easy monetary policy. Credit and high yield were higher with improving economic news.
- Commodities surged in April. Agriculture, particularly corn and soybeans, made big gains with higher global demand.

Returns

- The economic effects of the COVID-19 outbreak continue to take a significant toll on the global economy, though optimism for an imminent global recovery is rising, particularly in the US and developed countries.
- All capitalization sizes of US stocks are positive so far in 2021. Optimism about a global economic recovery persists among investors as the pace of COVID vaccinations quickens.
- Developed market stocks are positive so far this year, as expectations for global growth have risen. Emerging markets have benefited from commodities' recent rise, though a stronger dollar in Q1 and COVID's toll on economies such as India and Brazil has held them back some.
- Treasuries are negative so far in 2021. High yield has gained as expectations for economic recovery have grown.
- Commodities have performed well recently with hopes for greater global demand in 2021. Likely volatility in energy prices and other areas of commodities may mean that performance swings are the norm here.

Bloomberg Barclays Credit -3.4% Aggregate Bloomberc Barclays Global 1.3% -3.2% Aggregate Bloomberg Barclays -2.6% %8.0 U.S. Bloomberg Barclays U.S. -0.1% 1.4% Barclays U.S. Corp High Yield Sloomberc 1.9% MSCI EM* 4.8% 2.5% MSCI EAFE* %9.9 3.0% 11.8% S&P 500 5.3% Mid Cap 13.7% 5.1% Russell 15.1% Bloomberg Commodity 15.8% 8.3% TTD ■ April 15.0% 10.0% 2.0% %0.0 -2.0% 20.0%

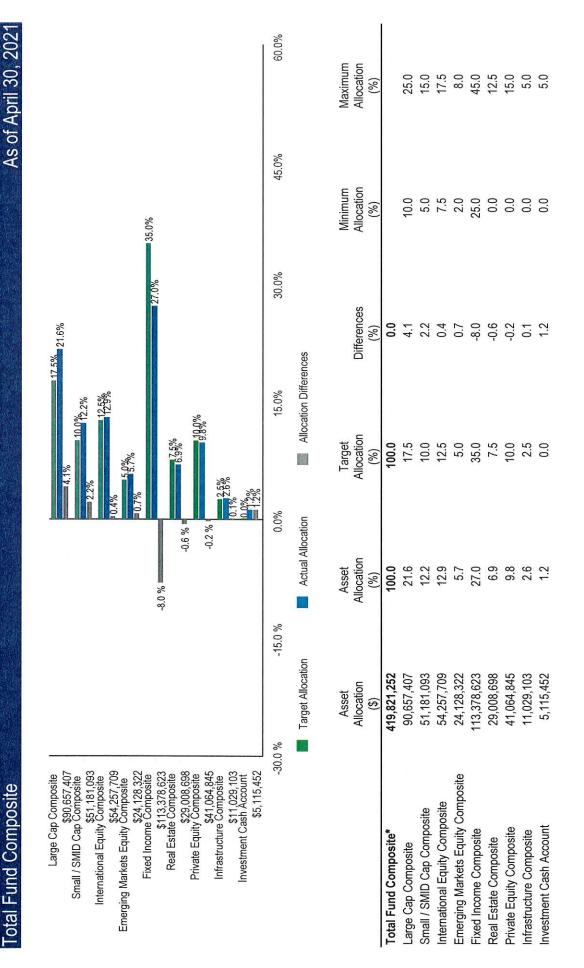
Bloomberg Barclays Treasury -3.5%

U.S.

★ Segal Marco Advisors

The City of Hollywood

Total Fund Composite



^{*}Total does not include non-investment cash account **Fixed Income Composite includes AG Direct Lending Fund II, L.P. and Entrust Blue Ocean Fund LP

The City of Hollywood

Asset Allocation	Asol	As of April 30, 2021
	Total Fund	
	% (\$)	%
Total Fund Composite*	419,821,252 100.0	0.0
Domestic Equity Composite	141,838,499 33	33.8
Large Cap Composite	90,657,407	21.6
Northern Trust S&P 500	90,657,407	21.6
Small / SMID Cap Composite	51,181,093	12.2
TSW - SMID Value	19,172,576	4.6
Loomis, Sayles Small/Mid Cap Growth	15,300,953	3.6
Northern Trust Extended Equity Market Index	16,707,564	4.0
International Equity Composite	54,257,709	12.9
Wellington International	54,257,709	12.9
Emerging Markets Equity Composite	24,128,322 5.	5.7
RBC Emerging Markets Equity	24,128,322 5.	5.7
Fixed Income Composite	113,378,623 27.	27.0
Baird Core Plus Bond	47,504,452	11.3
Neuberger & Berman Short Duration	37,703,258	0.6
AG Direct Lending Fund II, L.P.	8,397,994	2.0
Golden Tree Multi-Sector LP	18,262,209 4.	4.3
EnTrust Blue Ocean Onshore Fund LP	1,510,711 0.	0.4
Real Estate Composite	29,008,698 6.	6.9
Morgan Stanley	11,729,062	2.8
Principal Enhanced Property Fund	12,220,849	2.9
AG Realty Value Fund X	5,058,787	1.2
Private Equity Composite	41,064,845	9.8
NB Crossroads Fund XXI	22,721,055 5.	5.4
HarbourVest Dover Fund IX	7,871,484	1.9
GoldPoint Co-Investment VI	10,472,306	2.5
Infrastructure Composite	11,029,103	2.6
IFM Global Infrastructure	11,029,103	2.6
Investment Cash Account	5,115,452	1.2

^{*}Total does not include non-investment cash account.

=		2	,
-	5	5	
:	1	5	,
ī	2	2	

Г	_
	S
	0
	\approx
١	1
	Tob.
	\circ
	$^{\circ}$
	2000
	_
ĺ	O
	7
١	Ч
ĺ	4
	O
١	(V)
ı	⋖
١	
۱	
١	
ĺ	
ĺ	
١	
١	
١	
١	
١	
١	
١	
ĺ	
١	
١	
ĺ	
ĺ	
ĺ	
ĺ	
ĺ	
١	
١	
١	
ĺ	
ĺ	
١	
١	
١	
ı	
ĺ	
ĺ	
١	
١	
١	
ĺ	
ĺ	
ĺ	
ĺ	
ı	
١	
ı	
ĺ	a
ĺ	Ж
١	\circ
ĺ	
	$\boldsymbol{\sigma}$
١	Ç
ĺ	Ε
ĺ	5
ĺ	ڀ
١	_
ĺ	Φ
ĺ	\mathbf{n}
	-
	a
	¥
	.≝
	ative
	ative
	arative
	parative
	nparative
	mparative
	omparative
	Comparative

Oct-2020 To	15.8 15.6 15.3	25.4 25.4 25.4	51.2 50.6 56.6	28.1 28.1 33.6 43.3 43.1	22.9 22.1 24.7	23.1 25.5
	2.5 2.5 2.7	5.3 5.3 5.3	4.2 4.1 4.3	5.8 3.5 4.2 4.2	3.6 3.6 2.9	1.4
Performance (%) Jan-2021 To	2.2 2.2 2.3	6.2 6.2 6.2	12.5 12.3 16.8	1.5 1.5 2.5 7.9 7.7	0.9 0.8 3.5	3.0
Oct-2020 To	10.5 10.4 9.8	12.1 12.1 12.1	29.0 28.8 28.5	19.3 19.3 25.9 27.4 27.4 27.4	17.5 16.9 17.0	17.8
	Total Fund Composite (Gross) Total Fund Composite (Net) Policy Index*	Domestic Equity Northern Trust S&P 500 (Gross) Northern Trust S&P 500 (Net) S&P 500	TSW - SMID Value (Gross) TSW - SMID Value (Net) Russell 2500 Value Index	Loomis, Sayles Small/Mid Cap Growth (Gross) Loomis, Sayles Small/Mid Cap Growth (Net) Russell 2500 Growth Index Northern Trust Extended Equity Market Index (Gross) Northern Trust Extended Equity Market Index (Net) Dow Jones U.S. Completion Total Stock Market Indx	International Equity Wellington International (Gross) Wellington International (Net) MSCI AC World ex USA (Net)	Emerging Markets Equity RBC Emerging Markets Equity** MSCI EM (Net)

	c	3
	Č	5
	Q)
	3	>
=	_	≘
	C	5
:	I	_
	+	_
	C)
	₽	2
(5
	٥	D
	Ċ	=

Comparative Performance

As of April 30, 2021

		Performance (%)	(%	
	Oct-2020 To	Jan-2021 To		Oct-2020 To
	Dec-2020	Mar-2021	Month	Apr-2021
Fixed Income				
Baird Core Plus Bond**	1,4	-3.1	6.0	-0.9
Blmbg. Barc. U.S. Aggregate	0.7	-3.4	8.0	-2.0
Neuberger & Berman Short Duration**	2.4	0.4	0.3	3.1
NB Blended Benchmark***	0.1	0.0	0.0	0.1
Blmbg. Barc. Intermed. U.S. Government/Credit	0.5	-1.9	0.5	-0.9
GoldenTree Multi-Sector LP**	6.3	2.4	6.0	9.8
GT Blended Index***	4.5	1.2	0.7	9.9
Blmbg. Barc. U.S. Aggregate	0.7	-3.4	0.8	-2.0
Real Estate				
Morgan Stanley**	1.5	1.9	0.0	3.4
NCREIF ODCE Equal Weighted	1.4	2.3	0.0	3.7
Principal Enhanced Property Fund**	2.0	4.3	0.0	6.4
NCREIF Property Index	1.1	0.0	0.0	1.1
Infrastructure				
IFM Global Infrastructure**	3.9	1.7	4.1	10.0

^{*}Policy Index (Oct 2020-current) consists of 17.5% S&P 500, 10% Russell 2500, 12.5% MSCI ACWI ex US (net), 5% MSCI EM (net), 35% Bloomberg Barclays Aggregate, 2.5% NCREIF ODCE (ew), 3% NCREIF NPI, 2% NCREIF NPI+3%, 10% Russell 3000+3% and 2.5% CPI+3.5% **Performance shown net of fees

^{***}NB Blended Benchmark consists of 40% Bloomberg Barclays 1-3 Year Gov/Credit and 60% BofA Merrill Lynch 3 Month T-Bill.
****GT Blended Index consists of 33.34% BofA Merrill Lynch High Yield Master II, 33.33% HFRI RV: Fixed Income-Corporate Index, and 33.33% S&P/LSTA Leveraged Loan Index.

7	2
\leq	Ś
3	
É	5
I	
f	5
:	5
P	2

Comparative Performance - IRR									As of Ar	As of April 30, 2021
			Year	Oct-2020						
	Market Value	ò	o C	To	- 50	8 3	5	7	Since	Inception
	(A)	%	Date	Apr-2021	real	rears	reals	reals	IIICebrioii	Dale
Private Equity										The state of the s
Private Equity Composite	41,064,845	9.6	-1.5	11.4	30.6	17.4	NA	N/A	16.9	06/23/2016
NB Crossroads Fund XXI	22,721,055	5.4	0.0	12.9	31.4	17.8	N/A	N/A	15.6	06/23/2016
HarbourVest Dover Fund IX	7,871,484	1.9	0.0	12.6	32.9	21.0	N/A	N/A	25.9	12/16/2016
GoldPoint Co-Investment VI	10,472,306	2.5	-6.0	6.7	26.3	11.7	N/A	N/A	11.7	04/23/2018
440 C 440 H										
Filvate Debt	de Sacrite Grisband Schoolschaften	AND REPORT CONTRACTOR OF THE PERSON NAMED IN CONTRACTOR OF THE PERSON NAME	PHOSPHOLIZMUZNA BOSHON	PARTICULAR DESCRIPTION OF THE PROPERTY OF THE	CPP-COURTNAMEN'S SUCKLOSISE	NAMES OF TAXABLE PARTIES OF TAXABLE PARTIES.	SHICK SHIP SHIP SHIP SHIP SHIP SHIP SHIP SHIP	China Anna Christian Christian	STATE OF THE PROPERTY OF THE P	1,00,00
AG Direct Lending Fund II, L.P.	8,397,994	2.0	0.0	4.2	8.6	8.1	N/A	NA	8.4	05/31/2017
EnTrust Blue Ocean Onshore Fund LP	1,510,711	0.4	0:0	-2.1	N/A	N/A	N/A	ΝΑ	-2.1	09/22/2020
Private Real Estate										
AG Realty Value Fund X	5,058,787	1.2	0.3	8.7	16.7	N/A	N/A	N/A	9.8	06/10/2019

City of Hollywood Employees' Retirement Fund Investment Manager Fee Table Period Ended April 30, 2021

				Fetimate	Fstimated Annual	Estimated Annual
<u>Manager</u>	<u>Mandate</u>	Market Value	Fee Schedule	Fee	Fee (\$)*	Fee (%)*
Northern Trust S&P 500	Passive Large Cap Equity	\$ 90,657,407	7 3.5 bps on assets	69	31,730	0.04%
TSW	SMID Cap Value Equity	\$ 19,172,576	6 80 bps on assets	69	153,381	0.80%
Loomis Sayles	Small/Mid Cap Growth Equity	\$ 15,300,953	3 69 bps on assets	69	105,577	%69.0
Northern Trust Extended Equity Market	SMID Cap Core Equity	\$ 16,707,564	4 3 bps on assets	89	5,012	0.03%
Wellington	International Equity	\$ 54,257,709	9 71 bps on assets	69	385,230	0.71%
RBC Emerging Markets Equity	Emerging Markets Equity	\$ 24,128,322	2 88 bps on assets	69	212,329	0.88%
Neuberger & Berman Short Duration	Short Duration Fixed Income	\$ 37,703,258	8 43 bps on assets	69	162,124	0.43%
Baird Core Plus Bond	Core Plus Fixed Income	\$ 47,504,452	2 30 bps on assets	49	142,513	0.30%
GoldenTree Multi-Sector Fund	Multi-Sector Credit	\$ 18,262,209	9 75 bps on assets	69	136,967	0.75%
AG Direct Lending Fund II, LP¹	Direct Lending Fixed Income	\$ 8,397,994	4 100 bps on first \$50MM, 85 bps on \$50-\$100MM, 80 bps on \$100-\$200MM, 60 bps above \$200MM	69	83,980	1.00%
En Trust Blue Ocean ²	Direct Lending Fixed Income	\$ 1,510,711	1 150 bps on invested capital + incentive fee	69	22,661	1.50%
Morgan Stanley	Real Estate	\$ 11,729,062	84 basis points base fee, plus a monthly accrued performance based fee equal to 5% multiplied by NAV multiplied by comparable property NOI growth for the month	69	98,524	0.84%
Principal ³	Real Estate	\$ 12,220,849	9 130 bps on assets + incentive fee	69	158,871	1.30%
AG Realty Value Fund X⁴	Real Estate	\$ 5,058,787	7 100 bps on assets + incentive fee	s	50,588	1.00%
Neuberger Berman Crossroads XXI ⁵	Private Equity	\$ 22,721,055	5 25.8 bps on assets	S	58,620	0.26%
HarbourVest Dover Fund IX ⁶	Private Equity	\$ 7,871,484	4 70 bps on assets	€\$	55,100	0.70%
GoldPoint Co-Investment VI ⁷	Private Equity	\$ 10,472,306	6 1% on committed capital during investment peirod, 1% on invested capital thereafter	.	100,000	1.00%
IFM Global Infrasturcture ⁸	Infrastructure	\$ 11,029,103	3 77 bps on assets	69	84,924	0.77%
Investment Management Fees		\$ 414,705,801	_	s	2,048,131	0.49%
Segal Marco	Investment Consulting		\$130,000 annual retainer	s	130,000	0.03%
Wells Fargo	Custodian	\$ 414,705,80	414,705,801 2 bps on first \$50MM, 1 bps on next \$75MM, 0.5 bps on balance	\$ \$	31,985	0.01%
TOTAL FEES				s	2,210,116	0.53%

'Fees shown are estimated and does not include incentive fees.

Treative des sequel to 15% of the profits in access of an 7% hard RR to investors.

*Incentive fee is equal to 15% of the profits, subject to a 6% harder rate.

*Incentive fee is equal to 15% of the profits in excess of an 11% ent IRR to investors.

*Incentive fee is equal to 15% of the profits in excess of an 1% entered elem no incensive.

*Incentive fee is equal to 20% of the profits in excess of an 8% preferred return to incentive fee is equal to 20% of the profits in excess of an 8% preferred return to incentive fee is equal to 20% of the profits in excess of an 8% per annum.

*Incentive fee is equal to 10% of the profits in excess of an 8% per annum.

*Incentive fee is equal to 10% of the profits in excess of an 8% per annum.

*Incentive fee is equal to 10% of the profits in excess of an 8% per annum.

★ Segal Marco Advisors

Watch List - April 30, 2021

						d	Performance Criteria*	iteria*				を持ちから		
							Benchmark Criteria	iteria				Exceed Peer Median	er Median	Comments
Equity Managers	strategy	Kating		Manager	Benchmark		Manager	Manager Benchmark		Manager	Benchmark			
			3-Yr	%	AND	5-Yr	%	%	Inception*	%		3-Yr	5-Yr	
TSW1	SMID Cap Value Equity Recommended No	Recommended	No	9.2	12.0	No	9.5	12.7	No	8.4	9.6	N/A	N/A	Performance

*Performance is Net of Fees.

¹TSW placed on "Watch List" November 12, 2019. Inception Date - TSW: 11/1/2013

Cash Flow Activity - Inception to Date

> Since the December 2017 inception of the Administrative Services relationship, the SMA Client Services team has administered the following investment activity for the Fund:

City of Hollywood Employees' Retirement Fund	irement	12/2017 - 04/2021 Activity	021
		Dollars	Count
Subscriptions / Redemptions		396,150,000	75
Benefits			
Capital Calls		32,680,000	22
Capital Distributions		206,960,000	83
Mutual Fund Trades		75,600,000	17
Internal Bank Transfers		275,550,000	29
Invoice Payments			1
Other Directives		1	1
	TOTALS: \$	986,940,000	297

Cash Flow Activity Detail – April 2021

Manager	Product	Wire Type	Transfer Date	Transfer Amount
Angelo Gordon	AG Direct Lending Fund II	Capital Distribution	4/30/2021	\$371,257
Wells Fargo	DB Account	Internal Bank Transfer	4/1/2021	\$3,000,000
Total				\$3,371,257