CITY OF LONGMONT GENERAL EMPLOYEES' RETIREMENT PLAN

ACTUARIAL VALUATION REPORT FOR THE YEAR BEGINNING JANUARY 1, 2022

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August 30, 2022

Board of Retirement
City of Longmont
350 Kimbark Street
Civic Center Complex
Longmont, CO 80501

Subject: ***Certification of Actuarial Valuation***

Dear Board Members:

This report summarizes the results of the actuarial valuation of the City of Longmont General Employees' Retirement Plan as of January 1, 2022.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. The actuarial valuation is based on audited financial and member data provided by the Plan Administrator and summarized in this report. The benefits considered are those delineated in the plan as amended and restated effective January 1, 2018 and most recently amended effective January 1, 2022.

The purpose of the valuation is to measure the System's funding progress and to determine the employer contribution rate for the fiscal year ending December 31, 2022. This report should not be relied on for any purpose other than the purpose described above. All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. This report fully and fairly discloses the actuarial position of the plan. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. We believe that the assumptions and methods used in this report are reasonable and appropriate for the purpose for which they have been used. However, future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events.

The actuarially determined contribution rate reflects the 2021 approved change in the methodology for determining the payment on the unfunded accrued liability. The City's current contribution rate of 9.0% and the employee contribution rates are determined based on a variety of factors and assumptions that could change over time. Users of this report should be aware that contributing these amounts does not necessarily guarantee long-term benefit security.

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.

In our opinion, the actuarial assumptions, including the updated discount rate and mortality assumptions, used are reasonable, taking into account the experience of the plan and reasonable expectations, and represent our best estimate of the anticipated experience under the plan. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Section 4.3.

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.

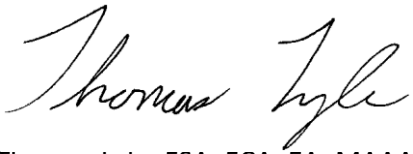
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly present the actuarial position of the City of Longmont General Employees' Retirement Plan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

Paul Wood and Thomas Lyle are Members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

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

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Paul Wood, ASA, FCA, MAAA
Senior Consultant



Thomas Lyle, FSA, FCA, EA, MAAA
Consultant

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Purpose and Highlights

Purpose of the Annual Actuarial Valuation

The main purposes of this report are:

- To determine the actuarial condition of the Retirement Plan considering current assets and the current city and member contribution rates;
- To review the current funded status of the plan; and
- To compare actual and expected experience under the plan during 2021.

The 2022 actuarial valuation is based upon the plan provisions as of January 1, 2022, as described in Section 4.2. The actuarial methods and assumptions are described in Section 4.3.

Highlights from the Current and Prior Valuations

The total actuarially determined contribution necessary to fund the plan's benefits under the Board's funding policy decreased from $8.48 million to $8.13 million. Based on a City contribution rate of 9.0% of covered payroll, the total anticipated contributions are adequate to cover the actuarially determined contribution:

Contribution Summary	January 1, 2022	January 1, 2021
Total Actuarially Determined Contribution	$ 8,129,855	$ 8,477,547
Expected Employee Contributions	3,261,240	2,886,101
Expected City Contributions	4,923,734	4,491,782
Contribution Excess/(Shortfall) - Expected less Actuarially Determined:		
--Dollar Amount	$ 55,119	$ (1,099,664)
--As a Percentage of Payroll	0.1%	(2.1%)

The rate of return on Actuarial Value of Assets of 10.4% in 2021 was more than the 7.0% assumed investment return rate by 3.4%, resulting in a gain from asset sources. The total actuarially determined contribution decreased by $410,317 due to the gain from asset sources.

As of January 1, 2021, the amortization method was updated to align better with the Board's contribution policy. The remaining unfunded actuarial liability as of January 1, 2021 is amortized as a level percent of pay over a closed 24 year period. The amortization period for the 2021 base is closed, so the remaining amortization base is 23 years as of this valuation. A new base is established each year for any additional gains of losses and each base will be amortized as a level percent of pay over a closed 20 year period.

The Actuarial Accrued Liability is the theoretical amount that would have accrued in the fund if an amount equal to the Normal Cost had been contributed in all prior years before the current valuation date. To the extent that an amount less than these prior Normal Costs has been contributed, or if the plan has incurred unfavorable experience compared to the assumptions, an Unfunded (or surplus if more has been contributed or favorable experience has been incurred) Actuarial Accrued Liability is created. The Unfunded Actuarial Accrued Liability (UAAL) was expected to increase from $37,200,217 to $37,379,114. The actual UAAL is $30,665,726, a decrease of $6,713,388 below the expected UAAL as of January 1, 2022. The decrease over the expected amount was mainly attributable to asset gains, which decreased the total Actuarial Accrued Liability by $5,971,867. The change between the actual UAAL and the expected UAAL is the total actuarial gain or loss as broken down into the items shown below:

1.	Unfunded Actuarial Accrued Liability (UAAL) as of January 1, 2021:	$	37,200,217
2.	Normal Cost as of January 1, 2021:	$	6,059,481
3.	Adminstrative expenses during 2021:	$	191,303
4.	Decrease due to expected contributions made during 2021:	$	(8,595,234)
5.	Interest on UAAL, normal cost, expenses, and contributions:	$	2,523,347
6.	Expected UAAL as of January 1, 2022 (1. + 2. + 3. + 4. + 5.):	$	37,379,114
7.	Actual contributions vs. Actuarially Determined Contribution (gain)/loss:	$	1,125,464
8.	Asset (Gain)/Loss:	$	(5,971,867)
9.	Liability (Gain)/Loss:		
	a. Salary increases less than expected	$	(921,894)
	b. Retirement experience		(337,264)
	c. Post-retirement mortality		(506,290)
	d. Other decrement experience		67,809
	e. Other net loss		24,691
	f. Plan Provision Changes *		(187,455)
	g. Total	$	(1,860,403)
10.	Payroll differences and contribution timing:	$	(6,582)
11.	Total Actuarial (Gain)/Loss (7. + 8. + 9.g. + 10):	$	(6,713,388)
12.	Unfunded Actuarial Accrued Liability as of January 1, 2022 (6. + 11.):	$	30,665,726

*Changes in Plan Provisions are due to the changes in Contribution Rates.

Financing Objectives

The Plan is supported by member contributions, City contributions, and net earnings on the investments of the fund. The member contribution rate for members hired before January 1, 2012 is 6.6% of the member's monthly compensation, and the rate for members hired after December 31, 2011 is defined as 1.0% less than the rate for pre-2012 hires (e.g. 5.6% as of January 1, 2022). The City contribution rate is 9.0% of monthly compensation as of January 1, 2022.

Determined Contribution

The total actuarially determined contribution as of January 1, 2022 is $8.13 million. This compares to a total actuarially determined contribution as of the prior year of $8.48 million.

The members are expected to contribute $3.26 million, based on the contribution rates effective January 1, 2022.

The expected City contribution effective January 1, 2022 is $4.92 million. This compares to an expected City contribution in the prior year of $4.49 million.

The plan experienced an overall actuarial gain of $6.71 million, consisting of a $0.19 millon gain due to the benefit provision changes, a $5.97 million gain on the actuarial value of assets, a $1.67 million gain from liability sources and $1.13 million dollar loss due to actual contributions being less than the actuarially determined contribution.

Funded Status

As of the valuation date, the Unfunded Actuarial Accrued Liability (UAAL) is $30.67 million, and the funded ratio (the ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability) is 86.3%. At the time of last year's valuation, the UAAL was $37.20 million, and the funded ratio was 82.7%. On a market value basis, the funded ratio is 94.7% compared to a market value funded ratio of 89.3% in the prior year.

The funded status measure may be appropriate for assessing the need for future contributions. The funded status is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Variability of Future Contribution Rates

The Actuarial Cost Method used to determine the contribution rate is intended to produce a normal cost which is generally level as a percentage of payroll. The method for developing the amortization payment on the UAAL is intended to produce a level dollar amount. These two pieces combine to create a total determined contribution that will remain fairly level (or slightly declining) as a percent of payroll. When experience differs from the assumptions, as it often does, the City's contribution rate can fluctuate.

The Market Value of Assets exceeds the Actuarial Value of Assets by $18.87 million as of the valuation date. This difference will be gradually recognized over the next four years. In the absence of any offsetting gains, the contribution rate will increase in order to reflect the recognition of these deferred losses.

Benefit Provisions

Effective January 1, 2022, the city contribution rate was increased from 8.4% to 9.0% and the member contribution rates increased from 6.0% and 5.0% to 6.6% and 5.6% respectively for members hired before and after December 31, 2011. There were no other provision changes since the prior valuation.

Actuarial Assumptions and Methods

In determining costs and liabilities, actuaries use assumptions about the future, such as rates of salary increase, probabilities of retirement, termination, death and disability, and an investment return assumption. The Retirement Board sets the actuarial assumptions and methods taking into account recommendations made by the plan's actuary and other advisors. These assumptions and procedures are detailed in Section 4.3 of this report.

We believe the assumptions are internally consistent and are reasonable, based on the actual experience of the plan's membership.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can, and almost certainly will, differ as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates, and amortization periods.

There have been no changes to the actuarial assumptions and methods since the last actuarial valuation.

Assets

System assets are held in trust. The City has supplied the financial information for use in the actuarial valuation.

The Actuarial Value of Assets is the asset value used to determine the unfunded actuarial accrued liability of the plan. The Actuarial Value of Assets is a smoothed Market Value, and recognizes annual asset gains and losses over a five year period. A smoothed value is used in order to dampen some of the year-to-year fluctuations in valuation results that would occur if the Market Value were used. The method phases in differences between the actual and expected market returns over five years.

The rate of return for the calendar year 2021 on a market basis was 12.0% and on an actuarial value basis was 10.4%. The actuarial assumption was 7.0%, and the difference between the 10.4% and the assumed 7.0% created the gain on the actuarial value of assets.

Member Data

Member data for retired, active, and inactive participants was supplied as of January 1, 2022 by the City. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data.

The number of active members decreased 0.1% since last year, from 709 to 708. Total payroll increased 1.9% since last year while average pay per member increased 2.1%.

GASB Disclosure

The Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting Pension Plans (Issued 6/2012), has replaced the requirements under GASB Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans (Issued 11/1994), effective for financial statements for fiscal years beginning after June 15, 2013. GASB Statement No. 68, Accounting and Financial Reporting for Pensions (Issued 6/2012), has replaced the requirements under GASB Statement No. 27, Accounting for Pensions by State and Local Government Employers (Issued 11/1994), effective for financial statements for fiscal years beginning after June 15, 2014. The Plan does not issue a separate Comprehensive Annual Financial Report. The plan sponsor, the City of Longmont will need to meet their financial reporting requirements under GASB 68. A separate accounting report will be issued for those purposes.

Summary of Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described in the section titled "Effects of Changes."

	Actuarial Valuation as of		Change Between Years	
	January 1, 2022	January 1, 2021	Amount	Percent
Summary of Costs				
Total Actuarially Determined Contribution:				
Normal Cost	$ 6,088,595	$ 6,059,481	$ 29,114	0.5%
Amortization of Unfunded Liability	1,878,860	2,266,466	(387,606)	(17.1%)
Adminstrative Expenses	162,400	151,600	10,800	7.1%
Total	$ 8,129,855	$ 8,477,547	$ (347,692)	(4.1%)
Estimated Contributions	$ 8,184,974	$ 7,377,883	$ 807,091	10.9%
Actuarially Determined Contribution as a Percentage of Covered Payroll	14.86%	15.85%	(0.99%)	N/A
Funded Status				
Actuarial Accrued Liability	$ 223,347,444	$ 214,726,011	$ 8,621,433	4.0%
Actuarial Value of Assets	$ 192,681,718	$ 177,525,794	$ 15,155,924	8.5%
Unfunded Actuarial Accrued Liability/(Surplus)	$ 30,665,726	$ 37,200,217	$ (6,534,491)	(17.6%)
Market Value of Assets and Additional Liabilities				
Market Value of Assets	$ 211,549,333	$ 191,793,268	$ 19,756,065	10.3%
Present Value of Projected Plan Benefits	$ 261,564,174	$ 252,998,721	$ 8,565,453	3.4%
Summary of Data				
Number of Participants in Valuation:				
Active Participants	708	709	(1)	(0.1%)
Participants with Deferred Benefits	180	169	11	6.5%
Retired Participants	399	386	13	3.4%
Beneficiaries	32	33	(1)	(3.0%)
Disabled Participants	9	8	1	12.5%
Total	1,328	1,305	23	1.8%
Active Participant Statistics				
Total Annual Compensation	$ 55,147,190	$ 54,100,526	$ 1,046,664	1.9%
Average Compensation	$ 77,892	$ 76,305	$ 1,587	2.1%
Average Age	45.7	46.3	(0.6)	(1.3%)
Average Service	9.5	9.6	(0.1)	(1.0%)

Effects of Changes

Changes in Plan Provisions
There were no changes in plan provisions since the prior valuation.

Changes in Contribution Rates
Effective January 1, 2022, the city contribution rate was increased from 8.4% to 9.0% and the member contribution rates increased from 6.0% and 5.0% to 6.6% and 5.6% respectively for members hired before and after December 31, 2011. There were no other provision changes since the prior valuation.

Changes in Actuarial Assumptions
There were no changes in actuarial assumptions since the prior valuation.

Changes in Actuarial Methods
There were no changes in actuarial methods since the prior valuation.

Changes in Actuarial Procedures
There were no changes in actuarial procedures since the prior valuation.

SECTION 1

FUNDING RESULTS

Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of		Percent
	January 1, 2022	January 1, 2021	Change
A. Summary of Data			
1. Active Members			
a. Number	708	709	(0.1%)
b. Annual Compensation	$ 55,147,190	$ 54,100,526	1.9%
c. Average Annual Compensation	$ 77,892	$ 76,305	2.1%
d. Average Age	45.7	46.3	(1.3%)
e. Average Service	9.5	9.6	(1.0%)
f. Accumulated Member Contributions			
i. With Interest	$ 27,690,896	$ 27,178,124	1.9%
ii. Without Interest	$ 20,162,624	$ 19,493,407	3.4%
2. Vested Terminated Members [1]			
a. Number	180	169	6.5%
b. Annual Deferred Benefits	$ 2,109,136	$ 2,001,887	5.4%
c. Average Annual Deferred Benefit	$ 11,717	$ 11,845	(1.1%)
3. Retired Members			
a. Number	399	386	3.4%
b. Annual Retirement Benefits	$ 9,644,546	$ 9,011,383	7.0%
c. Average Annual Retirement Benefit	$ 24,172	$ 23,346	3.5%
4. Beneficiaries [2]			
a. Number	32	33	(3.0%)
b. Annual Retirement Benefits	$ 439,793	$ 431,945	1.8%
c. Average Annual Retirement Benefit	$ 13,744	$ 13,089	5.0%
5. Disabled Members			
a. Number	9	8	12.5%
b. Annual Retirement Benefits	$ 179,663	$ 140,077	28.3%
c. Average Annual Retirement Benefit	$ 19,963	$ 17,510	14.0%
6. Total Members Included in Valuation	**1,328**	**1,305**	**1.8%**

(1) Includes 5 deferred disableds in 2021 and 5 deferred disableds and 1 deferred beneficiary in 2022. Deferred Benefits for disabled members are calculated as of Normal Retirement Date (age 65). The deferred beneficary benefit is calculated as of age 54.

Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of		Percent Change
	January 1, 2022	January 1, 2021	
B. Summary of Assets, Liabilities and Funded Status			
1. Plan Assets on Valuation Date			
a. Actuarial Value	$ 192,681,718	$177,525,794	8.5%
b. Market Value	$ 211,549,333	$191,793,268	10.3%
2. Actuarial Accrued Liability (Valuation Basis)	$ 223,347,444	$214,726,011	4.0%
a. Funded Ratio - Actuarial Value	86.3%	82.7%	4.4%
b. Funded Ratio - Market Value	94.7%	89.3%	6.0%
3. Present Value of Projected Benefits	$ 261,564,174	$252,998,721	3.4%

Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of				
	January 1, 2022		January 1, 2021		
	Amount	% of Covered Payroll	Amount	% of Covered Payroll	Percent Change in Amount
C. Summary of Actuarially Determined Contribution					
1. Annual Covered Payroll for Members Included in Valuation [1]	$ 54,708,160	N/A	$ 53,473,600	N/A	2.3%
2. Total Normal Cost	6,088,595	11.1%	6,059,481	11.3%	0.5%
3. Amortization of Unfunded Actuarial Liability [2]	1,878,860	3.4%	2,266,466	4.2%	(17.1%)
4. Administrative Expenses	162,400	0.3%	151,600	0.3%	7.1%
5. Total Actuarially Determined Contribution (2. + 3. + 4.)	$ 8,129,855	14.9%	$ 8,477,547	15.9%	(4.1%)
6. Estimated Member Contribution [3]	3,261,240	6.0%	2,886,101	5.4%	13.0%
7. Actuarially Determined Employer Contribution (5. - 6.)	**$ 4,868,615**	**8.9%**	**$ 5,591,446**	**10.5%**	**(12.9%)**

[1] Reflects compensation for current plan year for members under the age at which 100% of members are assumed to retire.

[2] Beginning January 1, 2021, the Unfunded Actuarial Accrued Liability is amortized as a level percent of pay over an initial period of 24 years. Each new amortization base in following years will be amortized as a level percent of pay over an initial closed period of 20 years.

[3] 6.6% of Covered Payroll for Tier 1 members and 5.6% of Covered Payroll for Tier 2 members. As of January 1, 2021, estimated member contributions were 6.0% of Covered Payroll for Tier 1 members and 5.0% of Covered Payroll for Tier 2 members.

Amortization of Unfunded Actuarial Accrued Liability

Amortization of Unfunded Actuarial Accrued Liability as of January 1, 2022					
UAAL as of January 1, 2022					$ 30,665,726
Total Prior Remaining Amortization Bases as of January 1, 2022					37,379,114
2022 Amortization Base as of January 1, 2022					$ (6,713,388)
Amortization Base	Years Remaining	Initial Base	Remaining Base at January 1, 2022	Amortization Payment	Remaining Base at January 1, 2023
2022 Actuarial Experience	20	$ (6,713,388)	$ (6,713,388)	$ (461,266)	(6,689,771)
2021 Actuarial Experience	23	37,200,217	37,379,114	2,340,126	37,491,717
Unfunded Actuarial Accrued Liability (UAAL)					$ 30,801,946
Total Amortization of Unfunded Actuarial Accrued Liability				$ 1,878,860	

Actuarially Determined Contribution

The actuarially determined contribution has been determined using the Individual Entry Age Normal Actuarial Cost Method. The Total Actuarially Determined Contribution is the sum of the normal cost and the amortization payment. Effective January 1, 2022, member contributions are estimated at 6.6% of their expected pay (5.6% for members hired after December 31, 2011). As of January 1, 2021, member contributions were estimated at 6.0% of their expected pay (5.0% for members hired after December 31,2011).

	Actuarial Valuation as of	
	January 1, 2022	January 1, 2021
1. Normal Cost	$ 6,088,595	$ 6,059,481
2. Amortization of Unfunded Actuarial Liability [1]	1,878,860	2,266,466
3. Administrative Expenses	162,400	151,600
4. Total Actuarially Determined Contribution		
a. Amount (1. + 2. + 3.)	$ 8,129,855	$ 8,477,547
b. Percent of Covered Payroll	14.9%	15.9%
5. Estimated Member Contribution [2]	$ 3,261,240	$ 2,886,101
6. Actuarially Determined Employer Contribution		
a. Amount (4.a. - 5.)	$ 4,868,615	$ 5,591,446
b. Percent of Covered Payroll	8.9%	10.5%
7. Estimated Employer Contributions [3]	$ 4,923,734	$ 4,491,782
8. Amount of Total Contribution in Excess of Actuarially Determined Contribution (7. - 6.a.)	**$ 55,119**	**$ (1,099,664)**

(1) Updated to reflect the newly adopted amortization method.

(2) 6.6% of Covered Payroll for Tier 1 members and 5.6% of Covered Payroll for Tier 2 members. As of January 1, 2021, estimated member contributions were 6.0% of Covered Payroll for Tier 1 members and 5.0% of Covered Payroll for Tier 2 members.

(3) 9.0% of Covered Payroll.

Normal Cost and Unfunded Actuarial Accrued Liability

A. Normal Cost

The components of normal cost for the active members under the Plan's funding method are:

Normal Cost Component	January 1, 2022	January 1, 2021	Percent Change
Retirement Benefits	$ 3,719,280	$ 3,754,830	-0.9%
Withdrawal Benefits	1,462,691	1,395,168	4.8%
Disability Benefits	845,576	849,231	-0.4%
Death Benefits	61,048	60,252	1.3%
Total Normal Cost	**$ 6,088,595**	**$ 6,059,481**	**0.5%**

B. Unfunded Actuarial Accrued Liability

The actuarial accrued liability is the present value of projected plan benefits allocated to past service by the actuarial funding method being used. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over the actuarial value of assets.

Development of the Actuarial Accrued Liability	January 1, 2022		January 1, 2021		Percent Change
1. Actuarial Accrued Liability					
a. Active Participants					
Retirement Benefits	$ 88,488,493		$ 88,120,872		0.4%
Withdrawal Benefits	4,146,536		3,976,881		4.3%
Disability Benefits	5,043,765		5,052,449		(0.2%)
Death Benefits	1,256,954		1,264,407		(0.6%)
Total	$ 98,935,748		$ 98,414,609		0.5%
b. Participants with Deferred Benefits	15,413,309	(1)	14,390,679	(1)	7.1%
c. Participants Receiving Benefits	108,998,387		101,920,723		6.9%
d. Actuarial Accrued Liability (a. + b. + c.)	**$ 223,347,444**		**$ 214,726,011**		4.0%
2. Actuarial Value of Assets	192,681,718		177,525,794		8.5%
3. Unfunded Actuarial Accrued Liability (1.d. - 2., not less than $0)	**$ 30,665,726**		**$ 37,200,217**		(17.6%)

(1) Includes refunds totaling $595,197 due to 121 nonvested terminated members as of 2022 and includes refunds totaling $405,492 due to 97 nonvested terminated members as of 2021.

Present Value of Projected Plan Benefits

The present value of projected benefits is the value of plan benefits using future earnings and service and is independent of the actuarial funding method being used. The present value of benefits represents the actuarial value of all benefits anticipated to be paid by the plan. The sum of the plan assets, the unfunded accrued liability and all future normal costs is equal to the present value of projected plan benefits.

Development of Present Value of Projected Benefits	January 1, 2022		January 1, 2021		Percent Change
Actuarial Present Value of Projected Benefits					
1. Active Participants					
Retirement Benefits	$ 111,101,998		$ 111,184,974		(0.1%)
Withdrawal Benefits	14,343,112		13,681,999		4.8%
Disability Benefits	10,044,000		10,153,658		(1.1%)
Death Benefits	1,663,368		1,666,688		(0.2%)
Total	$ 137,152,478		$ 136,687,319		0.3%
2. Participants with Deferred Benefits	15,413,309	(1)	14,390,679	(1)	7.1%
3. Participants Receiving Benefits	108,998,387		101,920,723		6.9%
4. Total (1. + 2. + 3.)	**$ 261,564,174**		**$ 252,998,721**		3.4%

(1) Includes refunds totaling $595,197 due to 121 nonvested terminated members as of 2022 and includes refunds totaling $405,492 due to 97 nonvested terminated members as of 2021.

Ten-Year Projected Cash Flow and History of Refunds

Ten-Year Projected Retirement Benefit Payments			
Plan Year Ending	Actives	Retirees [1]	Total [2]
12/31/2022	$ 1,418,541	$ 10,974,392	$ 12,392,933
12/31/2023	3,595,473	10,943,092	14,538,565
12/31/2024	5,548,288	10,860,130	16,408,418
12/31/2025	7,459,019	10,805,461	18,264,480
12/31/2026	9,318,355	10,749,186	20,067,541
12/31/2027	11,068,806	10,638,552	21,707,358
12/31/2028	12,651,223	10,497,236	23,148,459
12/31/2029	14,148,407	10,396,423	24,544,830
12/31/2030	15,606,389	10,256,044	25,862,433
12/31/2031	16,865,463	10,114,772	26,980,235

(1) Includes Disabled Members, Beneficiaries, and Deferred Vested Members. Retirement benefit payments for deferred vested members are assumed to commence at age 60 (age 55 for Pre-2012 members).

(2) Does not include $595,197 due in refunds to the 121 nonvested terminated members.

History of Refunds	
Year	Refund Amount
2004	$ 286,323
2005	529,823
2006	310,893
2007	351,493
2008	227,860
2009	69,017
2010	242,000
2011	86,010
2012	354,584
2013	554,090
2014	173,289
2015	211,132
2016	252,660
2017	83,669
2018	155,980
2019	203,839
2020	306,868
2021	579,658

SECTION 2

HISTORICAL INFORMATION

Historical Accounting Information

A. Schedule of Funding Progress

The Entry Age Actuarial Cost Method is being used for calculating the determined contributions from 2009 forward.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll (b-a)/c
1/1/2008 [1]	$92,633,601	$87,468,435	($5,165,166)	105.9%	$30,225,949	(17.1%)
1/1/2009	$82,849,523	$95,551,661	$12,702,138	86.7%	$31,451,589	40.4%
1/1/2010	$97,270,998	$100,415,167	$3,144,169	96.9%	$31,249,853	10.1%
1/1/2011	$102,816,031	$107,160,945	$4,344,914	95.9%	$31,421,570	13.8%
1/1/2012	$105,632,205	$112,246,514	$6,614,309	94.1%	$33,232,223	19.9%
1/1/2013	$108,725,228	$119,801,229	$11,076,001	90.8%	$33,077,871	33.5%
1/1/2014	$120,146,022	$129,116,911	$8,970,889	93.1%	$34,166,086	26.3%
1/1/2015	$129,097,625	$137,421,828	$8,324,203	93.9%	$35,953,272	23.2%
1/1/2016	$135,070,761	$146,016,782	$10,946,021	92.5%	$38,863,351	28.2%
1/1/2017	$142,756,373	$155,501,744	$12,745,371	91.8%	$40,955,282	31.1%
1/1/2018	$152,553,725	$164,256,241	$11,702,516	92.9%	$42,957,294	27.2%
1/1/2019	$156,118,826	$176,224,545	$20,105,719	88.6%	$46,700,443	43.1%
1/1/2020	$163,425,262	$186,026,584	$22,601,322	87.9%	$49,632,671	45.5%
1/1/2021	$177,525,794	$214,726,011	$37,200,217	82.7%	$53,473,600	69.6%
1/1/2022	$192,681,718	$223,347,444	$30,665,726	86.3%	$54,708,160	56.1%

[1] The Aggregate Actuarial Cost Method was used to determine the actuarially determined contribution on this valuation date.

B. Schedule of Employer Contributions

Year Ended December 31	City Actuarially Determined Contribution[1]	Percentage Contributed
2001	$ 530,795	240.1%
2002	812,101	169.9%
2003	1,136,210	118.3%
2004	729,730	187.3%
2005	1,242,115	117.2%
2006	1,393,723	106.6%
2007	1,417,948	107.2%
2008	1,135,270	133.9%
2009	2,785,511	58.8%
2010	1,882,680	138.9%
2011	1,950,565	98.9%
2012	2,165,299	99.3%
2013	2,417,672	87.9%
2014	2,160,600	107.8%
2015	2,162,221	116.0%
2016	2,521,512	105.4%
2017	2,864,132	104.9%
2018	2,904,735	116.4%
2019	4,006,205	90.8%
2020	4,359,706	114.2%
2021	5,591,446	83.2%

[1] Beginning of year

C. Actuarial Assumptions, Method and Additional Information

Valuation Date	January 1, 2022
Actuarial Cost Method	Entry Age Normal
Amortization Method	Closed bases established each year over 20 years. Initial base established January 1, 2021 was over 24 years. Amortized as a level percent of pay.
Asset Valuation Method	5-Year smoothed market
Actuarial Assumptions:	
• Investment Rate of Return*	7.00%
• Projected Salary Increases*	3.25% - 6.50%
Cost-of-living Adjustments	None
*Includes Price Inflation at	2.75%

SECTION 3

PLAN ASSETS

Summary of Market Value of Assets

Asset Category	Market Values as of December 31, 2021		Market Values as of December 31, 2020	
1. Cash and Short -Term Investments				
a. Cash	$ 947,786	0.4%	$ 1,832,769	1.0%
b. Short-Term Investments	2,796,446	1.3%	1,176,410	0.6%
c. Total	$ 3,744,232	1.8%	$ 3,009,179	1.6%
2. Receivables				
a. Interest and Dividends	$ -	0.0%	$ -	0.0%
b. Employee Contributions	-	0.0%	-	0.0%
c. Employer Contributions	-	0.0%	-	0.0%
d. Investments Sold	-	0.0%	-	0.0%
e. Other Receivables	-	0.0%	-	0.0%
f. Total	$ -	0.0%	$ -	0.0%
3. Investments at Fair Value				
a. U.S. Government Bonds	$ -	0.0%	$ -	0.0%
b. Foreign Government Bonds	-	0.0%	-	0.0%
c. Corporate Bonds	-	0.0%	-	0.0%
d. Foreign Corporate Bonds	-	0.0%	-	0.0%
e. Common Stock	36,253,651	17.1%	32,331,906	16.9%
f. Foreign Stock	-	0.0%	-	0.0%
g. Mutual Funds	171,592,571	81.1%	156,488,707	81.6%
h. Total	$ 207,846,222	98.2%	$ 188,820,613	98.5%
4. Total Assets	$ 211,590,454	100.0%	$ 191,829,792	100.0%
5. Liabilities				
a. Payable for Investments Purchased	$ -	0.0%	$ -	0.0%
b. Accounts Payable and Accrued Expenses	41,121	0.0%	36,524	0.0%
c. Benefits Payable	-	0.0%	-	0.0%
d. Total Liabilities	$ 41,121	0.0%	$ 36,524	0.0%
6. Net Assets for Pension Benefits	**$ 211,549,333**	**100.0%**	**$ 191,793,268**	**100.0%**

Reconciliation of Assets

Transactions	December 31, 2021	December 31, 2020
Additions		
1. Contributions		
a. Contributions from Employer	$ 4,654,064	$ 4,976,956
b. Contributions from Plan Members	2,853,143	2,831,599
c. Total	$ 7,507,207	$ 7,808,555
2. Net Investment Income		
a. Interest and Dividends	$ 8,305,947	$ 4,849,241
b. Realized and Unrealized Appreciation	14,819,620	22,152,386
c. Total	$ 23,125,567	$ 27,001,627
d. Investment Expense	(234,618)	(212,044)
e. Net Investment Income	$ 22,890,949	$ 26,789,583
3. Total Additions	$ 30,398,156	$ 34,598,138
Deductions		
4. Benefits and Expenses		
a. Retirement Benefits	$ 9,877,493	$ 9,210,365
b. Refund of Contributions	579,658	306,868
c. Administrative Expenses	184,940	152,697
5. Total Deductions	$ 10,642,091	$ 9,669,930
6. Net Increase	$ 19,756,065	$ 24,928,208
7. Net Assets Held in Trust for Pension Benefits		
a. Beginning of Year	$ 191,793,268	$ 166,865,060
b. End of Year	$ 211,549,333	$ 191,793,268

Actuarial Value of Assets

Development of the Actuarial Value of Assets		
1. Initial Actuarial Value as of January 1, 2021	$	177,525,794
2. Contributions		
a. Employer	$	4,654,064
b. Member		2,853,143
c. Total (a. + b.)	$	7,507,207
3. Decreases During Year		
a. Benefit Payments	$	9,877,493
b. Return of Member Contributions		579,658
c. Non-investment Expenses		184,940
d. Total (a. + b. + c.)	$	10,642,091
4. Expected Return at 7.0% on:		
a. Actuarial Value of Assets as of January 1, 2021	$	12,426,805
b. Item 2 (one-half year)		262,752
c. Item 3 (one-half year)		372,473
d. Total (a. + b. - c.)	$	12,317,084
5. Expected Actuarial Value of Assets December 31, 2021 (1. + 2. - 3. + 4.)	$	186,707,994
6. Unrecognized Asset Gain/(Loss) as of December 31, 2020		14,267,474
7. Expected Actuarial Value December 31, 2021, plus Previous Year's Unrecognized Asset Gain (5. + 6.)	$	200,975,468
8. Market Value December 31, 2021	$	211,549,333
9. 2021 Asset Gain/(Loss) (8. - 7.)		10,573,865
10. Asset Gain/(Loss) to be Recognized as of December 31, 2021		5,973,724
11. Initial Actuarial Value January 1, 2022 (5. + 10.)	$	192,681,718
12. Constraining Values:		
a. 80% of Market Value (8. * 0.8)	$	169,239,466
b. 120% of Market Value (8. * 1.2)	$	253,859,200
13. Actuarial Value as of January 1, 2022 (11.), but not less than (12a.), nor greater than (12b.)	**$**	**192,681,718**

Annual Gains and Losses on Assets

The following chart illustrates the history of the gains and losses on the assets, and the amount of each year's gains or losses, which are recognized for valuation purposes in the current valuation year.

Schedule of Assets Gains/(Losses)				
Year Ending December 31	Original Amount	Recognized in Prior Years	Recognized This Year	Recognized in Future Years
2017	$ 11,866,834	$ 9,493,468	$ 2,373,366	$ 0
2018	(22,584,273)	(13,550,565)	(4,516,855)	(4,516,853)
2019	15,409,708	6,163,884	3,081,942	6,163,882
2020	14,602,490	2,920,498	2,920,498	8,761,494
2021	10,573,865	0	2,114,773	8,459,092
Total	**$ 29,868,624**	**$ 5,027,285**	**$ 5,973,724**	**$ 18,867,615**

Average Annual Rate of Investment Return

Year Ending December 31	Actuarial Value		Market Value	
	Annual	Cumulative	Annual	Cumulative
1992	9.7%	9.7%	10.6%	10.6%
1993	9.5%	9.6%	7.1%	8.8%
1994	6.8%	8.7%	-6.6%	3.4%
1995	10.1%	9.0%	25.7%	8.6%
1996	10.8%	9.4%	13.6%	9.6%
1997	11.8%	9.8%	16.0%	10.6%
1998	12.1%	10.1%	10.7%	10.6%
1999	12.9%	10.4%	6.6%	10.1%
2000	10.2%	10.4%	6.5%	9.7%
2001	8.3%	10.2%	2.8%	9.0%
2002	4.0%	9.6%	-8.6%	7.3%
2003	5.4%	9.3%	19.5%	8.2%
2004	5.9%	9.0%	9.8%	8.4%
2005	6.0%	8.8%	6.9%	8.3%
2006	7.3%	8.7%	10.3%	8.4%
2007	10.3%	8.8%	10.1%	8.5%
2008	-10.3%	7.6%	-27.9%	5.9%
2009	17.8%	8.1%	30.3%	7.1%
2010	5.3%	8.0%	13.0%	7.4%
2011	3.1%	7.7%	-1.7%	7.0%
2012	3.7%	7.5%	13.2%	7.3%
2013	11.9%	7.7%	16.0%	7.6%
2014	8.4%	7.7%	3.8%	7.5%
2015	5.8%	7.7%	-1.8%	7.1%
2016	7.2%	7.6%	7.6%	7.1%
2017	8.2%	7.7%	16.7%	7.4%
2018	3.9%	7.5%	-7.2%	6.9%
2019	6.5%	7.5%	19.1%	7.3%
2020	9.8%	7.6%	16.1%	7.6%
2021	10.4%	7.7%	12.0%	7.7%

Before 1996, investment return is net of all expenses.

After 1995, investment return is net of investment expenses.

SECTION 4

BASIS OF VALUATION

Plan Participants

A. Participant Data Reconciliation

	Active Members	Inactive Members				Total[2]
		With Deferred Benefits[1]	Retired Members	Disabled Members	Bene-ficiaries	
As of January 1, 2021	**709**	**169**	**386**	**8**	**33**	**1,305**
Nonvested Terminations						
Cashouts	(26)					(26)
Cashouts Due	(20)					(20)
Vested Terminations						
Deferred Benefit	(14)	14				
Cashouts						
Cashouts Due						
Age Retirements	(19)	(3)	22			
Disability						
Deferred Benefit	(1)	1				
Retirement		(1)		1		
Deaths						
Without Beneficiary	(1)	(1)	(8)		(1)	(11)
With Beneficiary	(2)	1	(1)		2	
Expiration of Benefits					(2)	(2)
Transfers Out						
Transfers In						
Rehires[3]	1					1
Data Corrections						
New Entrants during the Year	81					81
Net Change	(1)	11	13	1	(1)	23
As of January 1, 2022	**708**	**180**	**399**	**9**	**32**	**1,328**

[1] Includes 5 deferred disableds in 2021 and 5 deferred disableds and 1 deferred beneficiary in 2022

[2] Does not include 121 nonvested terminated members

[3] Rehired from a nonvested terminated position.

Plan Participants

B. *Count of Active Members*

Age [1]	Years of Service [2]								
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
Under 20									
20-24	13	1							**14**
25-29	57	5							**62**
30-34	76	21	3						**100**
35-39	36	42	12	1	1				**92**
40-44	27	26	10	13	2				**78**
45-49	33	23	9	9	6				**80**
50-54	17	13	15	15	15	8	2		**85**
55-59	15	17	8	14	15	10	6	3	**88**
60-64	19	15	9	7	6	9	3	7	**75**
65-69	3	7	1	1	6	4	2	1	**25**
70-74	1	2	2		1	2		1	**9**
75+									
Total	**297**	**172**	**69**	**60**	**52**	**33**	**13**	**12**	**708**

C. *Average Compensation*

Age [1]	Years of Service [2]								
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total [3]
Under 20									
20-24	$63,764	*							**$62,237**
25-29	62,912	$75,339							**$63,914**
30-34	67,857	76,235	*						**$69,895**
35-39	69,421	81,068	83,633	*	*				**$76,797**
40-44	69,250	76,787	80,218	85,447	*				**$75,392**
45-49	83,517	98,834	92,407	68,444	102,640				**$88,659**
50-54	70,420	75,395	89,110	86,871	82,176	$84,050	*		**$81,695**
55-59	80,236	71,702	71,483	87,422	88,787	67,633	$76,109	*	**$78,505**
60-64	111,064	78,206	73,542	84,932	94,079	82,942	*	128,740	**$93,940**
65-69	*	54,503	*	*	95,589	$72,103	*	*	**$77,918**
70-74	*	*	*		*	*		*	**$48,781**
75+									
Total	**$72,565**	**$78,821**	**$80,990**	**$82,548**	**$87,368**	**$76,601**	**$91,887**	**$102,620**	**$77,892**

[1] Attained age last birthday.

[2] Service since date of hire.

[3] The average compensation is shown as "*" where counts are less than or equal to three participants.

Plan Participants

D. *Inactive Members - Annual Benefits*

Attained Age	Retired Members		Beneficiaries		Disabled Members		Members with Deferred Benefits	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
<50	-	-	-	-	-	-	75	$ 778,885
50	-	-	-	-	-	-	5	$ 69,228
51	-	-	-	-	-	-	9	$ 162,975
52	-	-	-	-	-	-	3	$ 25,571
53	-	-	-	-	-	-	2	$ 31,823
54	-	-	-	-	-	-	5	$ 86,300
55	1	$ 58,268	-	$ -	-	-	2	$ 19,368
56	3	88,856	1	27,342	-	-	6	$ 99,940
57	1	32,848	1	25,281	-	-	9	$ 115,065
58	5	255,054	1	24,091	-	-	14	$ 179,180
59	7	333,936	-	-	-	-	3	$ 54,302
60	7	213,613	1	2,337	-	-	8	$ 100,633
61	12	443,335	1	2,564	-	-	6	$ 49,385
62	12	382,176	-	-	-	-	2	$ 25,370
63	12	358,476	1	44,168	1	$ 39,586	8	$ 123,106
64	14	400,028	-	-	-	-	7	$ 62,611
65	25	819,433	1	9,894	1	12,928	4	$ 33,158
66	28	846,999	-	-	2	37,210	3	$ 25,799
67	17	370,790	1	12,851	-	-	2	$ 17,980
68	21	588,474	2	32,865	-	-	1	$ 9,171
69	24	484,790	2	22,734	1	44,770	1	$ 6,898
70	19	519,703	1	31,123	-	-	-	$ -
71	17	528,508	1	7,113	1	22,246	-	$ -
72	23	412,921	-	-	1	5,700	1	$ 13,108
73	22	403,399	4	40,161	1	5,791	4	$ 19,281
74	17	326,140	1	23,277	-	-	-	$ -
75	15	282,678	1	6,036	-	-	-	$ -
76	15	212,488	1	6,493	-	-	-	$ -
77	12	174,806	4	56,829	-	-	-	$ -
78	13	281,079	-	-	-	-	-	$ -
79	7	137,479	-	-	-	-	-	$ -
80	8	122,000	-	-	-	-	-	$ -
81	12	188,296	-	-	-	-	-	$ -
82	4	100,262	-	-	-	-	-	$ -
83	3	21,157	-	-	-	-	-	$ -
84	3	46,573	-	-	-	-	-	$ -
85	3	59,005	2	24,495	-	-	-	$ -
86	4	21,959	1	11,034	-	-	-	$ -
87	2	15,351	-	-	-	-	-	$ -
88	3	56,646	1	10,120	-	-	-	$ -
89	2	10,037	-	-	-	-	-	$ -
≥90	6	46,983	3	18,986	1	11,433	-	$ -
Total	**399**	**$ 9,644,546**	**32**	**$ 439,793**	**9**	**$ 179,663**	**180**	**$ 2,109,136**

Plan Participants

E. Participant Statistics

Inactive Participants as of January 1, 2022	Number	Amount of Annual Benefit
Participants Receiving Benefits		
• Retired	399	$ 9,644,546
• Beneficiaries	32	439,793
• Disabled	9	179,663
Total	**440**	**$ 10,264,002**
Participants with Deferred Benefits		
• Vested Terminated	174	$ 1,977,957
• Beneficiaries	1	4,869
• Disabled	5	126,310
Total	**180**	**$ 2,109,136**

Statistics for Active Participants	Number	Average		
		Age[1]	Service[2]	Earnings
As of January 1, 2021				
Continuing	632	47.0	10.6	$77,179
New	77	40.5	1.0	69,138
Total	709	46.3	9.6	$76,305
As of January 1, 2022				
Continuing	626	47.2	10.7	$ 79,488
New	82	34.6	0.6	65,705
Total	708	45.7	9.5	$ 77,892

[1] Age nearest birthday.

[2] Service since date of hire, excluding breaks in service and including purchased service.

Summary of Plan Provisions

Effective Date and Plan Year

Originally effective January 1, 1968; amended and restated effective January 1, 1992; amended and restated effective January 1, 1997; amended and restated effective January 1, 2002; amended and restated effective January 1, 2006; amended and restated effective January 1, 2008; amended and restated effective January 1, 2010; amended and restated effective January 1, 2012; amended and restated effective January 1, 2014; amended and restated effective January 1, 2018.

The plan was most recently amended, effective January 1, 2022, to change the member's contribution rate from 6.0% of compensation to 6.6% of compensation for members hired before January 1, 2012 and to change the member's contribution rate from 5.0% of compensation to 5.6% of compensation for members hired after December 31, 2011.

The plan year is January 1 through December 31.

Type of Plan

Trusteed, pension plan administered by a Retirement Board.

Employees Included

All permanent, full-time or part-time employees employed by the City of Longmont excluding policemen and paid firemen. Employees who first became a member of the plan before January 1, 2012 are defined as "Pre-2012" members.

Member Contributions

Members hired before January 1, 2012 contribute 6.6% of monthly compensation, increased from 6.0% effective January 1, 2022. Non Pre-2012 members contribute 1% less than Pre-2012 members (e.g. 5.6% contribution rate effective January 1, 2020). Since December 31, 1984, these contributions have been picked up and paid by the City as provided in Section 414(h) of the Internal Revenue Code. Member contributions are credited with interest at a rate of 3.0% per annum effective January 1, 2012.

City Contributions

That amount payable at least annually, which together with member contributions will adequately finance those benefits provided for by the Plan on a sound actuarial basis. The City is currently contributing at the rate of 9.0% of member's monthly compensation. Effective January 1, 2022, the City contribution rate increased to 9.0% of pay from 8.4% of pay.

Summary of Plan Provisions

Credited Service

Credited Service is any period of service rendered by a Member as an Employee of the City, if the Employee became a Member of the Plan when first eligible. In the event an Employee elected not to become a Member when first eligible, Credited Service shall not include any period prior to the Employee's election to become a Member.

Compensation Considered

The member's regular salary, to a maximum of $200,000 (as indexed, $305,000 for the year 2022), excluding overtime, bonuses, or any other extra pay, but including deferred compensation used to purchase non-forfeitable annuities and compensation deferred under Section 125, 414(h) or 457 of the Internal Revenue Code.

Final Average Annual Compensation

Final average annual compensation is the highest average annual compensation received by a member during any 36 consecutive complete calendar months out of the last 120 calendar months of employment.

Normal Retirement Benefit

Members are eligible for normal retirement on the first of the month coincident with or next following attainment of age 65. The monthly annuity, payable for life, is 1/12th of the following:

- 2.2% of Final Average Annual Compensation multiplied by Credited Service.

Late Retirement Benefit

The Late Retirement Benefit is computed in the same manner as the Normal Retirement Benefit considering Credited Service and Final Average Annual Compensation at the member's actual retirement date.

Early Retirement Benefit

A member is eligible for an Early Retirement Benefit at age 60 (age 55 for a Pre-2012 member), provided he has completed five years of Credited Service. The benefit is based on the Normal Retirement Benefit formula using Credited Service and Final Average Annual Compensation at actual retirement and is reduced by 6% for each year (3% for each year for a Pre-2012 member) by which the early retirement date precedes the normal retirement date.

Special Early Retirement

A member is eligible for a Special Early Retirement Benefit if the sum of his age and Credited Service at termination equals 80 or more. The benefit is based on the Normal Retirement Benefit formula using Credited Service and Final Average Annual Compensation at actual retirement. The benefit is payable as early as age 60 (age 55 for a Pre-2012 member) without reduction for early payment.

Vested Benefit

a) If a member terminates his employment with less than five years of Credited Service, his accumulated contributions will be refunded.

b) If a member terminates his employment with five or more years of Credited Service then he may elect to either receive his accumulated contributions or leave them in the trust fund and receive a deferred retirement benefit payable at his normal retirement date, which shall be his full accrued retirement benefit at his date of termination. In no event shall the retirement benefit payable be less than the benefit the member's accumulated contributions would provide at his normal retirement age. The member may elect early commencement of his deferred retirement benefit after age 60 (age 55 for a Pre-2012 member) subject to the same reduction as the Early Retirement Benefit.

Disability Benefit

A member is eligible for a Disability Benefit if his employment is terminated due to a total and permanent disability as determined by the Retirement Board. The annuity, commencing one month after the later of his normal retirement date or the date long-term disability payments cease, shall be the Normal Retirement Benefit based on the member's Final Average Annual Compensation at disability retirement and Credited Service the member would have accrued had he worked until his normal retirement date. The annual Disability Benefit payable shall not be less than 60% of the member's annual compensation rate at the time of disablement.

Death Benefit – Before Retirement

a) Active Members Before Normal Retirement Date or Eligibility for Special Early Retirement and Vested Terminated Members:

   1. If such member is married at the date of death, the spouse may elect to receive two times the deceased member's accumulated contributions at the date of death, or a monthly benefit payable for life in the amount of 60% of the member's accrued benefit on his date of death reduced by 1 ½% for every year over five years in which the spouse is younger than the member. The life only benefit would be payable on the later of the first day of the month coincident with or following the member's death or the first day of the month coincident with or following the member's 55th birthday.

   2. If the member is not married at the date of death, the beneficiary or estate shall receive two times the member's accumulated contributions at the date of death.

b) After Normal Retirement Date or Eligibility for Special Early Retirement: In the event that a member's death occurs after his normal retirement date or special early retirement date and before his actual retirement date, his beneficiary will be entitled to a monthly benefit. The member will be considered to have retired on the first day of the month of his death. If no optional benefit form had been elected prior to his death, his spouse will receive the full joint and survivor benefit payable for life or two times amount of Accumulated Contributions as of the date of death payable immediately.

Death Benefit – After Retirement

None, unless the member had elected an option providing for payments to a beneficiary, or if benefits received were less than the total accumulated contributions as of the date of retirement, the difference shall be paid to the member's beneficiary or estate.

Optional Retirement Benefits

Joint and survivor, or ten-year certain and life thereafter, or any other modified benefit that is mutually agreed upon by the Member, Retirement Board, and Council available under Normal, Early or Late Retirement.

Expenses

All expenses incident to the administration, termination, or protection of the Plan and Trust shall be paid by the City, or if not paid by the City, shall be paid by the trustee from the trust fund.

Cost-of-Living Adjustment

The most recent ad hoc cost-of-living adjustment was effective January 1, 2009 and structured as follows:

- The monthly benefits of Retired Members and Beneficiaries who terminated employment before January 1, 2005, and the Accrued Benefits of Vested Members who terminated employment prior to January 1, 2005, but whose payments have not yet commenced, have been increased by eight percent (8%).
- The monthly benefits for Retired Members, Beneficiaries and Vested Members who terminated during 2005 have been increased by six percent (6%).
- The monthly benefits for Retired Members, Beneficiaries and Vested Members who terminated during 2006 have been increased by four percent (4%).
- The monthly benefits for Retired Members, Beneficiaries and Vested Members who terminated during 2007 have been increased by two percent (2%).

In addition, there have been previous ad hoc cost-of-living adjustments for Retired Members, Beneficiaries and Vested Members effective January 1, 1985, January 1, 1991, January 1, 1996, January 1, 1998, January 1, 2001 and January 1, 2005.

Summary of Actuarial Methods, Procedures, and Assumptions

A. Entry Age Normal Actuarial Cost Method

Sometimes called "funding method," this is a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the plan is comprised of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability.

Liabilities and contributions are computed using the Entry Age method of funding unless the unfunded actuarial accrued liability is negative. Since the unfunded liability under the Entry Age method is positive, the Entry Age Cost Method is used for this year's report.

Under the Entry Age Normal Actuarial Cost Method, the Normal Cost is computed as the level percentage of pay which, if paid from the earliest time each Member would have been eligible to join the plan if it then existed (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the plan.

The normal cost for the Plan is determined by summing intermediate results for all Members and determining an average normal cost rate that is then related to the total payroll of Members.

The **Actuarial Accrued Liability** under this method at any point in time is the theoretical amount of the fund that would have accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date.).

The **Unfunded Actuarial Accrued Liability** is the excess of the actuarial accrued liability over the actuarial value of plan assets actually on hand on the valuation date.

Under this method experience gains or losses, i.e. decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

B. Asset Valuation Method

The actuarial value of assets is based on a five-year moving average of expected and market values determined as follows:

- at the beginning of each plan year, a preliminary expected actuarial asset value is calculated as the sum of the previous year's actuarial value increased with a year's interest at the Plan valuation rate plus net cash flow (including investment expenses) adjusted for interest (at the same rate) to the end of the previous plan year;
- the expected actuarial asset value is set equal to the preliminary expected actuarial value plus the unrecognized investment gains and losses as of the beginning of the previous plan year;
- the difference between the expected actuarial asset value and the market value is the investment gain or loss for the previous plan year;
- the final actuarial asset value is the preliminary value plus 20% of the investment gains and losses for each of the five previous plan years, but in no case more than 120% of the market value or less than 80% of the market value.

C. Valuation Procedures

No actuarial liability is included for participants who terminated non-vested prior to the valuation date, except those due a refund of contributions.

The compensation amounts used in the projection of benefits and liabilities were January 1, 2016, actual rates of pay, multiplied by the individual's part-time percentage (100%, 75%, or 50%).

In computing accrued benefits, average earnings were determined using actual earnings histories supplied by City of Longmont.

No benefits were projected to be greater than the dollar limitation required by the Internal Revenue Code Sections 401 and 415 for governmental plans, indexed for inflation.

D. Actuarial Standard of Practice (ASOP 35) – Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations

In complying with the Actuarial Standards of Practice (ASOP) 35, we are providing the following disclosure.

The mortality table is a generational table that automatically includes annual updates to reflect future improvement in the mortality table after the measurement date.

Summary of Actuarial Methods, Procedures, and Assumptions

E. Actuarial Assumptions

Interest: 7.00% per annum, compounded annually, net of investment expenses.

Mortality: The post-retirement mortality is based on the Pub-2010, Amount-Weighted, General, Healthy Annuitant Mortality Table. The pre-retirement mortality is based on the Pub-2010, Amount-Weighted, General, Employee Mortality Table. Both tables use generational mortality approach, projected with Scale MP-2020. Sample rates for 2022 are as follows:

Per 100 Participants				
Age	Pre-Retirement		Post-Retirement	
	Male	Female	Male	Female
20	0.04	0.01	0.04	0.01
25	0.03	0.01	0.03	0.01
30	0.04	0.01	0.04	0.01
35	0.05	0.02	0.05	0.02
40	0.07	0.04	0.07	0.04
45	0.10	0.06	0.11	0.06
50	0.15	0.08	0.29	0.22
55	0.21	0.12	0.42	0.28
60	0.30	0.18	0.59	0.37
65	0.44	0.28	0.85	0.57
70	0.63	0.44	1.37	0.96
75	1.10	0.81	2.67	1.88
80	1.73	1.33	4.77	3.36
85	7.22	5.33	8.59	6.21

These mortality tables have a provision for future mortality improvement in the current assumption.

Summary of Actuarial Methods, Procedures, and Assumptions

Post-Disability Mortality: Participants who are receiving disability retirement benefits are expected to have a higher mortality risk than other retirees or active plan participants. The disability mortality is based on the Pub-2010, Amount-Weighted, General, Disabled Retiree Mortality Table. This table uses generational mortality approach, projected with Scale MP-2020. Sample rates for 2022 are as follows:

Per 100 Participants		
Age	**Males**	**Females**
20	0.41	0.23
25	0.28	0.16
30	0.35	0.26
35	0.46	0.40
40	0.64	0.62
45	0.99	0.97
50	1.57	1.45
55	2.05	1.70
60	2.39	1.87
64	2.72	2.04

Disability: Disability rates are the rates at which active Plan participants are expected to become disabled, and to be eligible for plan disability retirement. Sample rates are as follows:

Per 100 Participants		
Age	**Males**	**Females**
20	0.14	0.14
25	0.15	0.15
30	0.16	0.16
35	0.19	0.19
40	0.30	0.30
45	0.45	0.45
50	0.69	0.69
55	1.19	1.19
60	1.80	1.80
64	1.91	1.91

Summary of Actuarial Methods, Procedures, and Assumptions

Withdrawal: For causes other than death, disability, or retirement. Sample rates are as follows:

Per 100 Participants		
Age	**Male**	**Female**
20	20.00	26.58
25	18.99	20.54
30	16.09	17.20
35	11.44	12.70
40	7.00	9.46
45	5.18	6.98
50	4.24	5.52
55	2.66	4.38
60	2.00	2.86
64	1.62	1.16

Salary Increase: Anticipated salary increases include both inflationary and merit increases. Merit increases are anticipated to be greater for members with lower service.

Years of Service	Salary Inflation Percentage	Total Percentage Increase
0-1	3.25%	6.50%
2	3.25	6.00
3	3.25	5.00
4	3.25	4.50
5	3.25	4.50
6	3.25	4.50
7	3.25	4.50
8	3.25	3.75
9	3.25	3.50
10+	3.25	3.25

Summary of Actuarial Methods, Procedures, and Assumptions

Retirement Rates:

The retirement rates shown in the table below for Pre-2012 members result in an average age of retirement of 60 for participants eligible for an unreduced retirement and age 62 for participants eligible for a reduced retirement. Withdrawal rates are used for ages before 55.

Per 100 Participants			
Attained Age	Eligible for Special Early (Unreduced) Retirement	Attained Age	Eligible for Early (Reduced) Retirement
55	15.0	55	10.0
56-59	10.0	56-59	5.0
60	20.0	60	15.0
61	10.0	61	10.0
62	40.0	62	30.0
63	20.0	63	20.0
64	20.0	64	20.0
65	30.0	65	30.0
66-69	20.0	66-69	20.0
70	100.0	70	100.0

The retirement rates shown in the table below for non-Pre-2012 members result in an average age of retirement of 62 for participants eligible for an unreduced retirement and age 63 for participants eligible for a reduced retirement. Withdrawal rates are used for ages before 60.

Per 100 Participants			
Attained Age	Eligible for Special Early (Unreduced) Retirement	Attained Age	Eligible for Early (Reduced) Retirement
60	30.0	60	20.0
61	20.0	61	15.0
62	45.0	62	30.0
63	25.0	63	25.0
64	25.0	64	25.0
65	30.0	65	30.0
66-69	20.0	66-69	20.0
70	100.0	70	100.0

Summary of Actuarial Methods, Procedures, and Assumptions

Salary Limit Increase: 3.50% per year, rounded down to nearest $10,000.

Expense Loading: Loading based on average of last three years noninvestment expenses rounded up to next $100.

Year	Noninvestment Expenses	
2019	$ 149,411	
2020	152,697	
2021	184,940	
Average	$ 487,048	$ 162,349
Average	$ 162,349	
Loading	$ 162,400	

Percent Married: 85% of all participants are assumed to have eligible spouses.

Age Difference: A husband is assumed to be three years older than his wife.

Age for Commencement of Deferred Vested Benefits: Age 60 (age 55 for Pre-2012 members).

SECTION 5

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY

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;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. 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;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. 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 in Section 1.3 may be considered as a minimum contribution rate that complies with the Board's funding policy. 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.

Risks Associated With Measuring the Accrued Liability and Actuarially Determined Contribution

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:

	January 1, 2022	January 1, 2021
Ratio of the market value of assets to total payroll	3.8	3.5
Ratio of actuarial accrued liability to payroll	4.1	4.0
Ratio of actives to retirees and beneficiaries	1.6	1.7
Ratio of net cash flows to market value of assets	-1%	-1%
Duration of the actuarial accrued liability	12.1	12.2

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 4.0 times the payroll, a return on assets 5% different than assumed would equal 20% 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 5.5 times the payroll, a change in liability 2% other than assumed would equal 11% 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 super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Risks Associated With Measuring the Accrued Liability and Actuarially Determined Contribution

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.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

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 6

LONG TERM PROJECTION

Long Term Projections

City of Longmont General Employees' Retirement Plan
Projection Results Based on January 1, 2022 Actuarial Valuation
Discount Rate: 7.00%

Valuation as of January 1,	Actuarial Accrued Liability at Valuation Date (AAL, in Thousands)	Actuarial Value of Assets at Valuation Date (AVA, in Thousands)	Unfunded Actuarial Accrued Liability at Valuation Date (UAAL, in Thousands)	Funded Ratio at Valuation Date	Total Normal Cost% Including Admin Expenses	Employer Normal Cost% Including Admin Expenses (6) - (13)	30 Year Employer Annual Required Contribution	Employer Actuarially Determined Contribution (7) + (8)	Market Return for Fiscal Year	Compensation for Fiscal Year (in Thousands)	Actual Employer Contribution Rate	Employer Contributions for Fiscal Year (in Thousands)	Actual Employee Contribution Rate	Employee Contributions for Fiscal Year (in Thousands)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
2022	$ 223,347	$ 192,682	$ 30,666	86.3%	11.43%	5.46%	3.43%	8.90%	7.00%	$ 54,708	9.00%	$ 4,924	5.96%	$ 3,261
2023	233,230	206,017	27,212	88.3%	11.58%	5.67%	2.95%	8.62%	7.00%	56,861	9.00%	5,118	5.91%	3,359
2024	242,885	224,176	18,709	92.3%	11.73%	5.87%	1.92%	7.79%	7.00%	58,955	9.00%	5,306	5.86%	3,456
2025	252,437	239,913	12,524	95.0%	11.89%	6.06%	1.18%	7.24%	7.00%	61,086	9.00%	5,498	5.83%	3,558
2026	261,861	253,121	8,740	96.7%	12.04%	6.25%	0.73%	6.99%	7.00%	63,290	9.00%	5,696	5.79%	3,665
2027	271,189	264,427	6,762	97.5%	12.09%	6.32%	0.51%	6.83%	7.00%	65,675	9.00%	5,911	5.76%	3,784
2032	320,121	323,134	(3,013)	100.9%	12.17%	6.50%	-0.46%	6.04%	7.00%	78,502	9.00%	7,065	5.67%	4,451
2037	377,446	394,715	(17,268)	104.6%	12.20%	6.57%	-1.65%	4.92%	7.00%	93,360	9.00%	8,402	5.63%	5,255
2040	417,403	446,839	(29,437)	107.1%	12.20%	6.58%	-2.57%	4.01%	7.00%	103,523	9.00%	9,317	5.61%	5,813
2042	447,160	486,661	(39,501)	108.8%	12.19%	6.58%	-2.50%	4.08%	7.00%	110,999	9.00%	9,990	5.61%	6,226
2044	479,864	531,308	(51,444)	110.7%	12.19%	6.59%	-1.80%	4.79%	7.00%	118,923	9.00%	10,703	5.60%	6,666
2047	534,080	607,614	(73,534)	113.8%	12.20%	6.60%	-5.84%	0.76%	7.00%	131,849	9.00%	11,866	5.60%	7,387
2052	638,228	762,739	(124,512)	119.5%	12.22%	6.62%	-8.13%	0.00%	7.00%	156,684	9.00%	14,102	5.60%	8,775

SECTION 7

GLOSSARY

Glossary

Actuarial Accrued Liability (AAL)	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs. The total present value of benefits is the sum of the AAL and the 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	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	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 system typically also includes calculations of items needed for compliance with GASB No. 25, such as the Funded Ratio and the Actuarially Determined Contribution (ADC).
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). The actuarial value of assets is the asset amount used to determine the unfunded accrued liability, the funded ratio and the ADC

Glossary

Amortization Method	A method for determining the Amortization Payment. The choices are level dollar and level percentage of payroll; and open period versus closed period. 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. For an open amortization method (either level dollar or level percent of pay), the amortization period does not decline each year. Thus, at the end of a given period, an open amortization period may still have a remaining UAAL balance.
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. As a special note, it is possible that an open method level percent of pay payment may not pay off principal in early years.
Amortization Period	The period used in calculating the Amortization Payment.
Annual Determined Contribution (ADC)	The employer's periodic determined 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.

Glossary

Experience Gain/Loss	A measure of the liability 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 No. 25 and GASB No. 27	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 27 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 25 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.