

City of Allentown Firemen's Pension Plan

Actuarial Valuation Report as of January 1, 2025

Produced by Cheiron

September 2025

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September 29, 2025

City of Allentown Pension Board
Department of Finance, Room 227
435 Hamilton Street
Allentown, Pennsylvania 18101-1699

Dear Members of the Board:

At your request, we have conducted our annual actuarial valuation of the City of Allentown Pension Plan as of January 1, 2025. The purpose of this report is to present the annual actuarial valuation of the City of Allentown Firemen's Pension Plan. This report is for the use of the City of Allentown's Pension Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. The report does not include calculations under GASB Statements No. 67 and No. 68 which are provided in a separate report.

Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions on which our findings are based. The results of this report are only applicable to the funded status of the Plan as of January 1, 2025 and will be used to determine the Plan's 2026 and 2027 Minimum Municipal Obligation (MMO). The final MMOs are dependent upon the payroll of the active population as provided by the City.

Future actuarial valuation results may differ significantly from the current actuarial valuation results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law. The results and projections provided in this report rely on future plan experience conforming to the underlying assumptions and methods outlined in this report. To the extent that the actual plan experience deviates from the underlying assumptions and methods, or there are any changes in plan provisions or applicable laws, the results would vary accordingly and projections may change materially.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared exclusively for the City of Allentown's Pension Board for the purpose described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron



Karen Zangara, FSA, EA, MAAA
Principal Consulting Actuary



Brett Warren, FSA, EA, MAAA
Consulting Actuary

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

FOREWORD

Cheiron has performed the actuarial valuation of the City of Allentown Firemen’s Pension Plan as of January 1, 2025. The purpose of this report is to:

- 1) **Measure and disclose**, as of the valuation date, the financial condition of the Plan, in compliance with Act 205;
- 2) **Indicate trends** in the financial progress of the Plan; and
- 3) **Determine an estimated Minimum Municipal Obligation (MMO)** for calendar year 2027 and to provide the actual MMOs for 2025 and 2026 in accordance with Act 44 and Act 205.

An actuarial valuation establishes and analyzes Plan assets and liabilities on a consistent basis and traces the progress of both from one year to the next. It includes measurement of the Plan’s investment performance, as well as an analysis of actuarial liability gains and losses.

Section I presents a summary containing our findings and disclosing important trends experienced by the Plan in recent years as well as a risk assessment, which includes a review of potential risk and projected financial outlook associated with the plan.

Section II contains details on Plan assets, together with pertinent performance measurements.

Section III provides details on the Plan’s liabilities.

Section IV provides the amortization requirements, the actual MMOs for 2025 and 2026, and the estimated MMO for 2027. The actual 2027 MMO amount will be finalized once the payroll for the 2027 year is provided by the City of Allentown. The 2026 and 2027 MMOs are based on the January 1, 2025 actuarial valuation results.

The appendices to this report contain supplemental information based upon assets excluding proceeds from pension obligation bonds, a summary of the Plan’s membership at the valuation date, a summary of the major provisions of the Plan, and the actuarial methods and assumptions used in the valuation.

In preparing our report, we relied on information (some oral and some written) supplied by the City of Allentown (“City”) and its auditors, Zelenkofske Axelrod LLC. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for the reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

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SECTION I – BOARD SUMMARY

The following table sets out the principal results of this year’s valuation and compares them to last year’s results.

Table I-1 Summary of Principal Plan Results			
Valuation as of:	1/1/2023	1/1/2025	% Change
<u>Participant Counts</u>			
Actives	127	135	6.3%
Terminated Vested and Inactive Members	3	3	0.0%
In Pay Status	191	196	2.6%
Total	321	334	4.0%
W-2 Pay for Active Members (from prior year)	\$ 12,845,274	\$ 14,571,053	13.4%
Average Annual W-2 Pay	101,144	107,934	
Annual Retirement Allowances for			
Retired Members and Beneficiaries	\$ 8,557,461	\$ 9,290,701	8.6%
Average Monthly Retirement Benefit	3,734	3,950	5.8%
<u>Financial Information</u>			
Market Value of Assets (MVA)	\$ 121,776,933	\$ 145,668,274	19.6%
Actuarial Value of Assets (AVA)	132,425,581	143,740,409	8.5%
Actuarial Liability	\$ 142,333,301	\$ 156,989,496	10.3%
Unfunded Actuarial Liability (AVA basis)	9,907,720	13,249,087	33.7%
Funding Ratio (MVA)	85.6%	92.8%	
Funding Ratio (AVA)	93.0%	91.6%	

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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SECTION I – BOARD SUMMARY

General Comments

- For plans that are either not distressed or minimally distressed, the future gains and losses of the Plan are required to be amortized over the lesser of the maximum amortization periods, as outlined in Appendix D, or the average future service for the active participants in the Plan which is 12.03 years as of January 1, 2025 and, per Act 205, rounded up to 13 years. The City of Allentown was determined to be not distressed (90% funded on an aggregate AVA basis for all plans) by the Pennsylvania Auditor General in 2024 and in accordance with Act 205 Section 502. Plan distress categories as outlined by Act 44 are provided below:

Funding Ratio	Distress Level
90% and above	None
70% to 89%	Minimal
50% to 69%	Moderate
Less than 50%	Severe

- The City adopted Ordinance 57 on September 16, 2015, as allowed under Section 202(b)(4) of Act 205, to change the plan’s amortization method. The amortization payments of the unfunded actuarial liability (UAL) will be the lesser of (1) the traditional amortization of individual bases or (2) the level dollar rolling amortization of the total UAL over 10 years, if the funding level of the Plan exceeds 70% (which applies for this valuation). In this valuation, the lesser amount is the 10-year amortization of the UAL which is shown in Section IV of this report.
- The Market Value of Assets returned 14.35% in 2023 and 12.61% in 2024.
- The Actuarial Value of Asset (AVA) method, which smooths gains and losses over 5 years, was applied. Over the two-year period covering 2023 and 2024, there was an AVA gain of \$1.85 million.
- On the liability side, the Plan experienced a two-year loss totaling \$7.83 million primarily due to unlimited overtime that is not capped at 10% of pay for the five-year average pay used for the benefit calculation based on clarifications in the new Collective Bargaining Agreement.
- Overall, the Plan experienced a net loss (investment gain and liability loss) of \$5.99 million during the two-year period covering 2023 and 2024.

SECTION I – BOARD SUMMARY

Risk Assessment

Significant risks that may result in actual future measurements deviating from those expected by this valuation include investment risk, as well as longevity and other demographic risk. Investment risk is the potential that future investment returns will deviate from those that are expected. Longevity and other demographic risk is the potential that mortality or other demographic experience will deviate from that which is expected by the valuation assumptions.

The volatility of the measurements due to differences in the actual investment returns is examined later in this section with projections that assume rates of return other than the valuation assumption. We anticipate that for this plan the demographic assumption that presents the most risk to future actual measurements deviating from expected is the rate of salary increase, which impacts the Cost of Living Adjustment (COLA) growth for retirees, and potentially the mortality rate.

- If salary/rank pay growth is generally lower than anticipated, the plan's future financial status will be improved while if salary/rank pay is generally higher than anticipated, it will be degraded from that expected by this valuation. Salary/rank pay growth is especially a risk for the plan because of how this impacts not only liabilities for active participants, but for retirees as well because their COLA increase occurs when the pension allowance falls below half of the current salary for a firefighter of the same rank based upon rank at retirement.
- If mortality rates are generally higher than anticipated, the plan's future financial status will be improved while if mortality rates are generally lower than anticipated, then it will decline from that expected by this valuation.

In the "Trends" part of this section, historical measures shown that demonstrate the potential volatility of the Plan's actuarial measurements as a result of deviation of actual experience from assumptions, have grown in recent years.

The remainder of this section analyzes past trends in the Plan's funding and presents projections under various economic outlooks.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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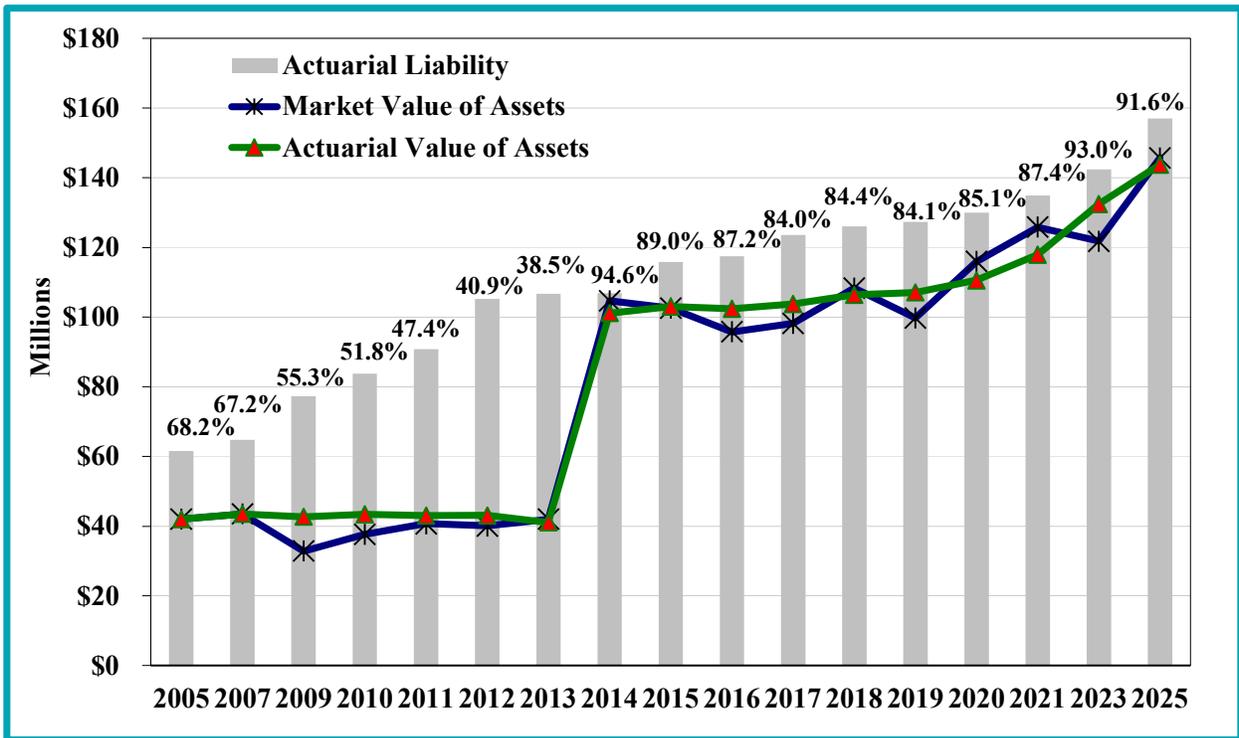
SECTION I – BOARD SUMMARY

Trends

It is important to take a step back from the latest results and view them in the context of the Plan’s recent history. Below we present a series of charts which display key factors in the valuations over the last several years.

Assets and Liabilities

The gray bars represent the Actuarial Liability mentioned in this report. The green and blue lines represent the asset values. Prior to 2007, the Actuarial Value of Assets equaled the Market Value of Assets. The funding ratios shown in the graph above each gray bar are equal to the Actuarial Value of Assets divided by the Actuarial Liability. The January 1, 2014 assets reflect the \$61.2 million Note contribution in 2013 and increased the funding ratio to 94.6%.



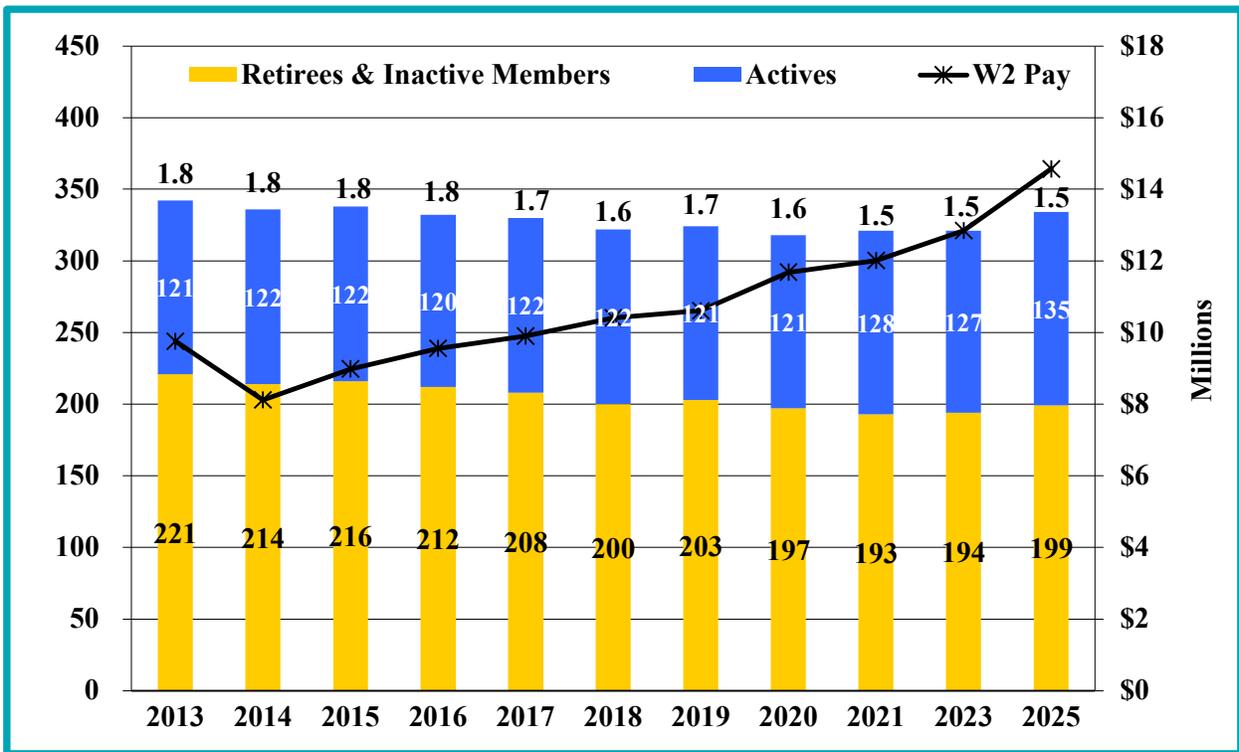
Results before 2010 are from the prior actuary. Valuations performed biennially from 2005 – 2009 and 2021 – 2025. The Actuarial Liability results for 2014 reflect the 2013 assumptions, in order that the 2015 results reflect all assumption changes since the prior Act 205 filing. This is required under Act 205.

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SECTION I – BOARD SUMMARY

Participant Trends

Here we compare the membership counts (left-hand scale) and the W-2 pay (right-hand scale). The ratio (at the top of each bar) is the number of inactive participants divided by the number of active participants. The ratio of inactive to active participants is a measure of the maturity of the plan. When this ratio is above one, the fund is more mature and potentially at a higher risk. This is because the assets backing the retiree benefits have become large relative to the contribution base, i.e., the active participant payroll. As assets grow relative to the pensionable payroll, any asset gain or loss can have a significant impact, resulting in volatile costs from year-to-year even with the application of asset smoothing methods.



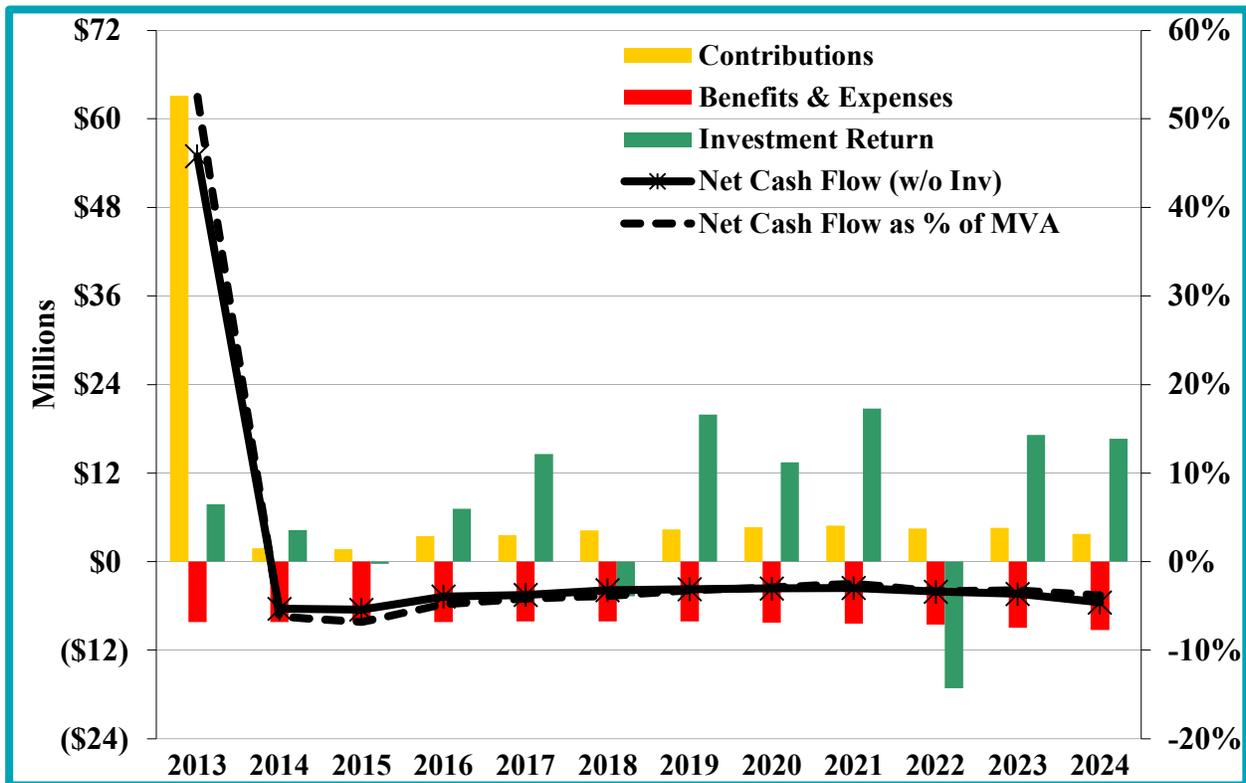
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SECTION I – BOARD SUMMARY

Cash Flows

Plan cash flow is a critical measure, as it reflects the ability to make benefit payments without necessitating difficult investment decisions, especially during volatile markets. The laddered bond approach the Board has adopted for this plan helps to mitigate this risk. Cash flow is defined as contributions received less benefit payments and expenses.

The Plan’s net cash flow (NCF) has been negative except for 2013. Due to the \$63.1 million contribution, which includes a \$61.2 million Note payment (under section 404(h) of Act 205) from the City’s water and sewer lease proceeds, the plan had a substantial positive net cash flow in 2013. As anticipated, the plan experienced negative net cash flows from 2014-2024. The implication of a plan in a negative cash flow position is that return on investment must first cover the negative cash flow before the assets can increase. The NCF as a percentage of the Market Value of Assets (right vertical axis) was about negative 3.8% in 2024, so the net assets will not increase unless investment returns exceed 3.8%, if there are similar cash flows in 2025.



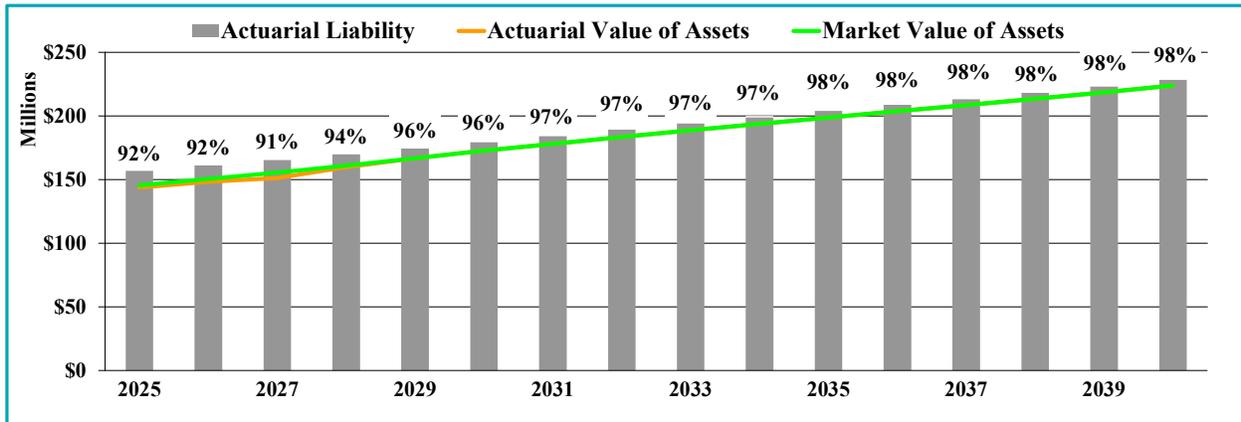
**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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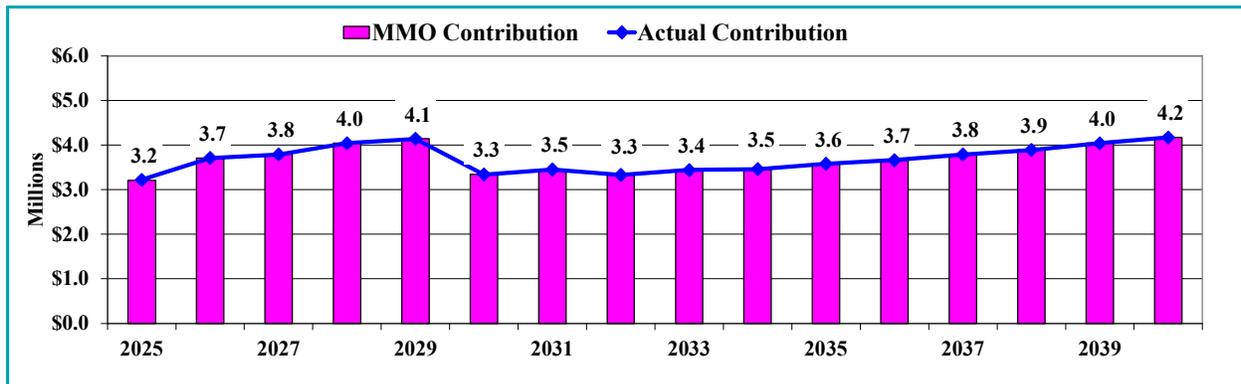
Baseline Projections - Asset Returns of 7.30% per year

We have included two charts projecting the funded ratio and Minimum Municipal Obligations for the next 15 years, assuming that the Plan’s assets earn 7.30%.

The gray bars represent the liabilities with the orange and green lines representing the asset values. The Actuarial Value of Assets and the Market Value of Assets are expected to converge over the next five years. This projection assumes all assumptions outlined in Appendix D are fully realized and that the MMO is paid in full each year. The funded ratio (Actuarial Value of Assets divided by liabilities) listed on top of each of the bars initially decreases to 91% in 2027, as deferred investment losses/gains are recognized along with contribution timing delay and the rolling amortization, and then increases to 98% at the end of the 15-year period. Due to the 10-year rolling amortization funding method, the funding ratio will not attain a 100% funded ratio but it will continue to approach the 100% level assuming all assumptions are met.



This next chart projects the MMO over the same period. On top of each bar is the projected MMO amount in millions of dollars. The 10-year rolling amortization (which is expected to be lower than the traditional amortization) is included in the calculation of the UAL amortization amount for the MMO. If all assumptions are met, the projected MMO after 15 years will be \$4.2 million.



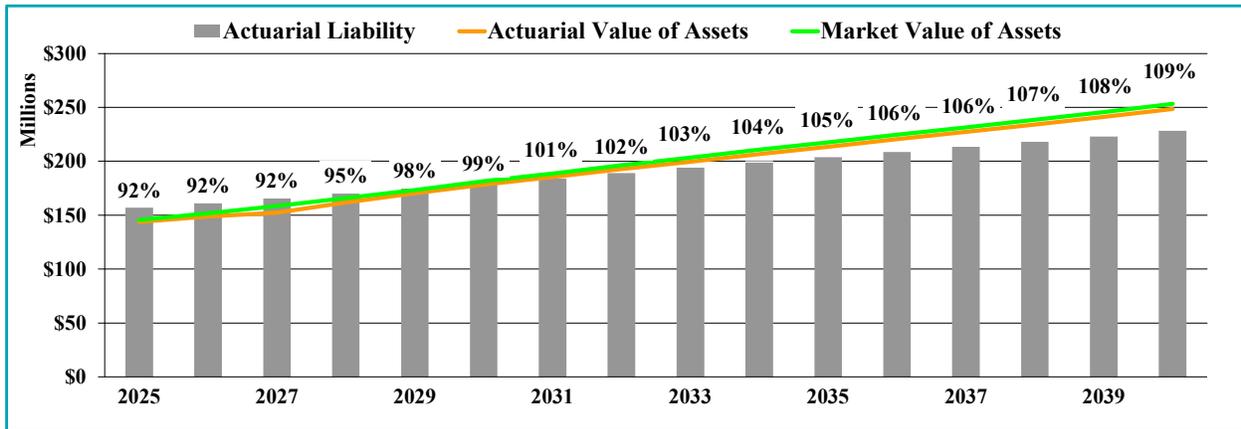
**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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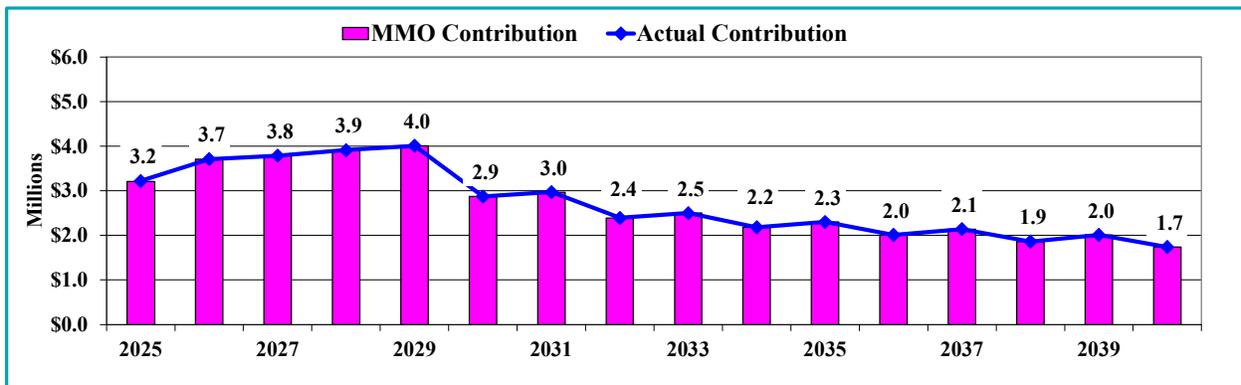
Optimistic Projections - Asset Returns of 8.30% per year

The charts below show the expected progress of the Plan over 15 years, assuming that the Plan’s assets earn 8.30%, 1.0% higher than the valuation assumption. All other assumptions are consistent with the Baseline projections.

The funded ratio (Actuarial Value of Assets divided by liabilities) listed on top of each of the bars increases to over 100% in 2031 and then to 109% at the end of the 15-year period.



This next chart projects the MMO over the same period. On top of each bar is the projected MMO amount in millions of dollars. When the plan is projected to become over 100% funded, 10% of the surplus assets above the liabilities are used to reduce the MMO.



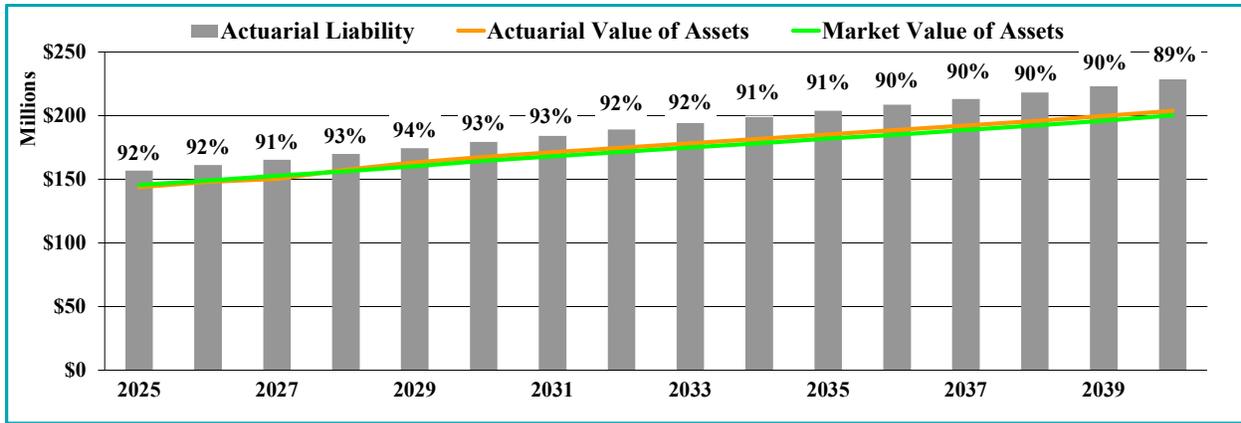
**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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SECTION I – BOARD SUMMARY

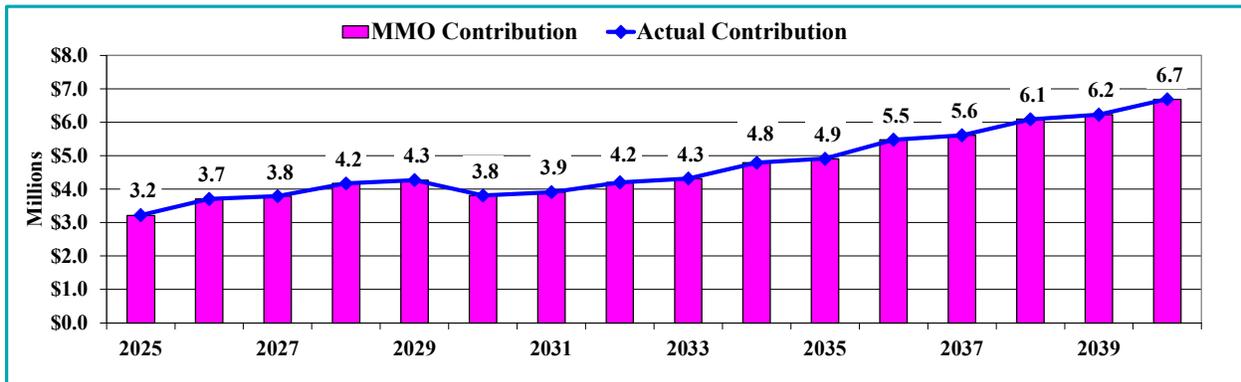
Pessimistic Projections - Asset Returns of 6.30% per year

The charts below show the expected progress of the Plan over 15 years, assuming that the Plan’s assets earn 6.30%, 1.0% lower than the valuation assumption. All other assumptions are consistent with the Baseline projections.

The funded ratio (Actuarial Value of Assets divided by liabilities) listed on top of each of the bars initially increases to 94%, in 2030 as deferred investment gains are recognized but then gradually decreases to 89% at the end of the 15-year projection period due to the lower than expected returns. Also, this gradual decrease in the funding ratio is due to the 10-year rolling amortization being applied every year. If in fact this scenario occurred, discussion with the pension board over the reduction in the discount rate assumption would likely occur.



This next chart projects the MMO over the same period. On top of each bar is the projected MMO amount in millions of dollars. The 10-year rolling amortization is included in the calculation of the UAL amortization amount for the MMO.



**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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SECTION I – BOARD SUMMARY

The projections provided above are based upon the January 1, 2025 valuation and the methods, assumptions, plan provisions and data as outlined in this report. To the extent that the actual plan experience deviates from the underlying assumptions and methods, (for example, if the asset returns are less than expected, the demographic data experience is different from the assumptions, or there are any changes in plan provisions or applicable laws) *the results will vary accordingly and possibly materially*, resulting in potentially larger MMOs than currently expected. Please note that these projections should be replaced once new data and valuations are completed in the future.

The MMO Pay used in the MMO calculation in the table below is provided by the City of Allentown and may differ from the valuation pay provided throughout this report which is based on actual participant data included in the actuarial valuation as of January 1 of each year.

Table I-2 Minimum Municipal Obligation (Actual and Estimated)			
Based Upon Valuation Report Calendar Year	1/1/2023 2025	1/1/2025 2026	1/1/2025 2027
(1) MMO Pay <i>(Estimated)</i>	\$ 16,184,019	\$ 15,656,742	\$ 16,361,000
(2) Normal Cost %	16.13%	16.76%	16.76%
(3) Total Normal Cost	2,610,482	2,624,070	2,742,104
(4) Amortization of UAL	1,332,956	1,782,494	1,782,494
(5) Total Administration Expense	80,000	80,000	80,000
(6) Total Financial Requirement	<u>\$ 4,023,438</u>	<u>\$ 4,486,564</u>	<u>\$ 4,604,598</u>
(7) Estimated Employee Contributions	809,201	782,837	818,050
(8) Minimum Municipal Obligation [(6)-(7)]	<u>\$ 3,214,237</u>	<u>\$ 3,703,727</u>	<u>\$ 3,786,548</u>

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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SECTION I – BOARD SUMMARY

Low-Default-Risk Obligation Measure (LDROM)

The Plan invests in a diversified portfolio to achieve the best possible return at an acceptable level of risk. The lowest investment risk portfolio for a pension plan would be composed entirely of low-default-risk fixed income securities whose cash flows match the cash flows needs of the Plan. However, such a portfolio would have a lower expected rate of return (5.54% as of December 31, 2024) than the diversified portfolio (7.30%). Low-Default-Risk Obligation Measure (LDROM) represents what the Actuarial Liability would be if the Plan's assets were invested in such a portfolio.

As of January 1, 2025, the LDROM is \$191.1 million¹ compared to the Actuarial Liability of \$157.0 million for the City. The \$34.1 million difference can be viewed as the expected savings from taking on the investment risk of the diversified portfolio. Alternatively, it can be viewed as the potential cost of eliminating the investment risk of the non-fixed income allocations of the diversified portfolio.

If the Plan were to invest in the LDROM portfolio, the funded ratios would decrease, and contribution requirements would increase for the City. The security of the Plan's pension benefits relies on the current assets, future investment earnings, and the ability and willingness of the City to make future contributions. If the Plan were to invest in the LDROM portfolio, it would not change the current assets, but it would reduce future investment earnings and increase future City contributions. However, the volatility of future investment earnings and future contributions would be significantly reduced.

¹ Based on a discount rate equal to the December 31, 2024 FTSE Pension Liability Index of 5.54% and all other assumptions and methods as used to calculate the Actuarial Liability.

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SECTION II – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely have an impact on benefit levels, contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets at January 1, 2024 and January 1, 2025;
- Statement of the **changes** in market values during the year;
- An assessment of **investment performance**; and
- Development of the **actuarial value of assets**.

Disclosure

The market value of assets represents the “snap-shot” or “cash-out” values which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace.

Table II-1 Disclosure of Plan Assets*		
	1/1/2024	1/1/2025
<u>Assets</u>		
Investments	\$ 134,530,357	\$ 145,582,232
Receivables	52,195	104,648
Due from City's General Fund	0	0
Total Assets	\$ 134,582,552	\$ 145,686,880
<u>Liabilities</u>		
Accounts Payable	\$ 7,557	\$ 18,606
Due to City's General Fund	0	0
Total Liabilities	\$ 7,557	\$ 18,606
Net Assets Available for Benefits	\$ 134,574,995	\$ 145,668,274

* Assets are based on the Annual Comprehensive Financial Report (ACFR) for each year end.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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SECTION II – ASSETS

Changes in Market Value

The components of asset change are:

- Contributions
- Benefit payments
- Expenses (administrative and investment consulting)
- Investment income (realized and unrealized)

The specific changes during the 2023 and 2024 plan years are presented below:

Table II-2 Changes in Market Value		
	2023	2024
Beginning of Year Assets	\$ 121,776,933	\$ 134,574,995
<u>Additions</u>		
Employer Contributions	\$ 3,857,404	\$ 2,996,738
Member Contributions	738,443	775,191
Interest and Dividends	3,045,380	3,432,241
Net Appreciation / (Depreciation)	14,115,805	13,185,865
Total Additions	<u>\$ 21,757,032</u>	<u>\$ 20,390,035</u>
<u>Deductions</u>		
Benefit Payments	\$ 8,880,691	\$ 9,224,481
Administrative expense	78,279	72,275
Total Deductions	<u>\$ 8,958,970</u>	<u>\$ 9,296,756</u>
Net Change in Market Value of Assets	\$ 12,798,062	\$ 11,093,279
End of Year Assets	\$ 134,574,995	\$ 145,668,274

The two-year average of the administrative expenses paid from the plan assets, rounded to the nearest \$10,000, is \$80,000, which includes the investment consultant fees as reported as a separate line item on the asset statements. This is the projected expense estimate for the 2026 and 2027 MMO determinations.

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SECTION II – ASSETS

Investment Performance

The following table calculates the investment related gain/loss for the most recent two calendar years on a market value basis. The market value gain/loss is an appropriate measure for comparing the actual asset performance to the long-term 7.30% assumption.

Table II-3			
Market Value of Assets Gain/(Loss)			
Item	2023	2024	Total Period
Beginning of Year Market Value	\$ 121,776,933	\$ 134,574,995	\$ 121,776,933
Contributions	4,595,847	3,771,929	8,367,776
Benefit Payments	(8,880,691)	(9,224,481)	(18,105,172)
Administrative Expenses	(78,279)	(72,275)	(150,554)
Expected Investment Earnings (7.30%)	8,733,267	9,625,870	17,743,899
Expected Market Value on December 31	<u>\$ 126,147,077</u>	<u>\$ 138,676,038</u>	<u>\$ 129,632,882</u>
Investment Gain / (Loss)	<u>8,427,918</u>	<u>6,992,236</u>	<u>16,035,392</u>
End of Year Market Value	\$ 134,574,995	\$ 145,668,274	\$ 145,668,274
Return	14.35%	12.61%	13.48%

The Total Period reconciliation reflects total benefit payments, contributions and expenses during this two-year period. Investment earnings do not follow the additive property and instead are calculated based on the beginning and end of Total Period values.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
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SECTION II – ASSETS

Assets at Actuarial Value

The Actuarial Value of Asset (AVA) method smooths gains and losses over five years. The resulting value is then limited to be no greater than 120% and no less than 80% of the Market Value of Assets on the valuation date. Additional details regarding this actuarial methodology are included in Appendix D of the report.

The table below shows the development of the actuarial asset value applied to this valuation.

Table II-4 Development of Actuarial Value of Assets 5-Year Smoothing Method				
Market Value of Assets as of January 1, 2025				\$ 145,668,274
<u>Plan Year</u>	<u>Investment Gains / (Losses)</u>	<u>Percent Recognized</u>	<u>Percent Deferred</u>	<u>Amount Deferred</u>
2020	\$ 4,889,388	100%	0%	\$ 0
2021	11,598,444	80%	20%	2,319,689
2022	(27,605,910)	60%	40%	(11,042,364)
2023	8,427,918	40%	60%	5,056,751
2024	6,992,236	20%	80%	5,593,789
				\$ 1,927,865
Preliminary Actuarial Value as of January 1, 2025				\$ 143,740,409
Corridor for Actuarial Value				
- Lower Limit				80% \$ 116,534,619
- Upper Limit				120% \$ 174,801,929
Actuarial Value of Assets as of January 1, 2025				\$ 143,740,409
- as a percent of Market Value of Assets				98.7%

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SECTION II – ASSETS

The following table calculates the investment related gain/loss for the most recent two calendar years on an actuarial value basis.

Table II-5 Actuarial Value of Assets Gain/(Loss)			
Item	2023	2024	Total Period
Beginning of Year Actuarial Value	\$ 132,425,581	\$ 138,778,951	\$ 132,425,581
Contributions	4,595,847	3,771,929	8,367,776
Benefit Payments	(8,880,691)	(9,224,481)	(18,105,172)
Administrative Expenses	(78,279)	(72,275)	(150,554)
Expected Investment Earnings (7.30%)	9,510,618	9,932,759	19,355,348
Expected Actuarial Value on December 31	\$ 137,573,076	\$ 143,186,883	\$ 141,892,979
Investment Gain / (Loss)	<u>1,205,875</u>	<u>553,526</u>	<u>1,847,430</u>
End of Year Actuarial Value	\$ 138,778,951	\$ 143,740,409	\$ 143,740,409
Return	8.23%	7.71%	7.97%

The Total Period reconciliation reflects total benefit payments, contributions and expenses during this two-year period. Investment earnings do not follow the additive property and instead are calculated based on the beginning and end of Total Period values.

CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025

SECTION III – LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities at January 1, 2023 and January 1, 2025; and
- Statement of **changes** in these liabilities during the two-year period.

Disclosure

Two types of liabilities are calculated and presented in this report.

- **Present Value of Benefits:** Used for analyzing the financial outlook of the Plan, this represents the amount of money needed today to fully fund all future benefits and expenses of the Plan, assuming participants continue to accrue benefits.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated by taking the Present Value of Benefits above and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. Employer Normal Costs are developed under the **Entry Age Normal** funding method, with normal cost as a percent of pay determined to be level at each active participant's entry age.

The following table discloses both of these liabilities for the current and prior valuations. The liability is also compared to the Plan's assets to determine the **net surplus** or **unfunded liability**. The net surplus or unfunded liability shown in this report is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation in the event of a plan termination or other similar actions.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION III – LIABILITIES

**Table III-1
Liabilities/Net (Surplus)/Unfunded**

	January 1, 2023	January 1, 2025
Present Value of Future Benefits		
(1) Active Participant Benefits		
Retirement Benefits	\$ 59,532,229	\$ 68,529,429
Disability Benefits	\$ 1,617,427	\$ 1,896,391
Survivor Benefits	\$ 1,401,257	\$ 1,628,990
Refund of Members Contribution with Interest	0	0
Other: Vested Benefits	967,437	1,166,775
Total Active Participant Benefits*	\$ 63,518,350	\$ 73,221,585
(2) Inactive Participant Benefits		
Retirement Benefits	\$ 85,133,242	\$ 89,754,359
Disability Benefits	\$ 3,748,882	\$ 5,380,008
Survivor Benefits	8,981,144	\$ 10,702,740
Terminated Vested and Inactive Members	10,195	384,092
Total Inactive Participant Benefits	\$ 97,873,463	\$ 106,221,199
(3) Present Value of Benefits (PVFB)	\$ 161,391,813	\$ 179,442,784
[(1) +(2)]		
Actuarial Value of Assets (AVA)	\$ 132,425,581	\$ 143,740,409
Present Value of Future Contributions	28,966,232	35,702,375
Total Resources	\$ 161,391,813	\$ 179,442,784
Actuarial Liability		
Present Value of Benefits (PVFB)	\$ 161,391,813	\$ 179,442,784
Present Value of Future Normal Costs (PVFNC)	19,058,512	22,453,288
Actuarial Liability (AL = PVFB – PVFNC)	\$ 142,333,301	\$ 156,989,496
Actuarial Value of Assets (AVA)	132,425,581	143,740,409
Net (Surplus)/Unfunded (AL – AVA)	\$ 9,907,720	\$ 13,249,087

* The amount of the accumulated member contributions without accrued interest is \$7,188,098 for all active members as of January 1, 2025.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION III – LIABILITIES

Changes in Liabilities

The Liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- Benefits accrued since the last valuation
- Plan amendments changing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in Plan assets resulting from:

- Contributions different than expected
- Investment earnings different than expected

In each valuation, we report on those elements of change which are of particular significance, potentially affecting the long-term financial outlook of the Plan. In the following table we present key changes in liabilities since the valuation as of January 1, 2023. The accrual of benefits is the normal cost under the Entry Age Normal cost method.

Table III-2 Change in Actuarial Liability	
Liabilities on 01/01/2023	\$ 142,333,301
Liabilities on 01/01/2025	<u>156,989,496</u>
Liability Increase (Decrease)	\$ 14,656,195
Change Due to:	
Plan Amendment	\$ 0
Assumption Change	0
Method Change	0
Accrual of Benefits	4,237,816
Benefit Payments	(18,105,172)
Passage of Time	20,690,100
Liability (Gain)/Loss	<u>7,833,451</u>
Total	\$ 14,656,195

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION III – LIABILITIES

The following table provides the Normal Cost, which is the cost for the additional benefit accrued during the year. The Normal Cost as a percent of payroll as of January 1, 2023 is used to calculate the 2025 MMO. The Normal Cost as a percent of payroll as of January 1, 2025 is used to calculate the 2026 and 2027 MMO.

Table III-3		
Normal Cost and Normal Cost as Percentage of W-2 Payroll		
	2023	2025
Normal Cost	\$ 2,072,281	\$ 2,442,717
W-2 Wages for active members	\$ 12,845,274	\$ 14,571,053
Normal Cost as a Percent of the Estimated Payroll	16.13%	16.76%

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION IV – MINIMUM MUNICIPAL OBLIGATION

The actuarial funding method used to determine the normal cost and the unfunded actuarial liability is the **Entry Age Normal** (EAN) cost method. The normal cost is based on the normal cost rate determined by taking the value, as of entry age into the plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of each member's expected future salary producing a normal cost rate as a percent of salary that should remain relatively constant over a participant's career. The normal cost rate is multiplied by current salary to determine each member's normal cost. The total normal cost of the plan is the summation of each member's normal cost. Finally, the normal cost is reduced by the total member contributions to produce the employer normal cost.

The actuarial liability for active participants is the present value of all future benefits expected to be earned under the plan minus the present value of future normal costs. The actuarial liability for inactive participants is the present value of all future pension benefits to be paid from the plan to the retirees and vested terminated participants. The unfunded actuarial liability is the difference between the EAN actuarial liability and the actuarial value of assets.

The amortization requirement is the annual contribution to reduce the unfunded actuarial liability recognized over a certain time period, as outlined in Act 205 and revised by Act 44. The amortization time periods are provided in Appendix D of this report.

In the following charts, we show the actual MMOs for 2025 and 2026. The payroll amounts shown reflect the information provided by the City for those years. The MMO for 2027 has been estimated based on the results of this valuation and the 2026 estimated payroll. The actual amount will vary based on actual payroll as provided by the City of Allentown.

The actuarially determined contribution (ADC) which is represented by the MMO in Table IV-1 on the next page is a reasonable actuarially determined contribution in accordance with Actuarial Standard of Practice (ASOP) No. 4. The actuarial methods have been selected to balance benefit security, intergenerational equity, and stability of actuarially determined contributions. The selection of the actuarial methods has taken into account the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due. The actuarial methods and assumptions are shown in Appendix D of this report.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION IV – MINIMUM MUNICIPAL OBLIGATION

The MMO pay used in the MMO calculation in the table below is provided by the City of Allentown and may differ from the valuation pay provided throughout this report which is based upon actual participant data included in the actuarial valuation as of January 1 of each year.

Table IV-1			
Minimum Municipal Obligation (Actual and <i>Estimated</i>)			
Based on Valuation Report: Calendar Year:	1/1/2023 2025	1/1/2025 2026	1/1/2025 2027
1. MMO pay (actual/ <i>estimated</i>) (prior year W2 pay reported by the City)	\$ 16,184,019	\$ 15,656,742	\$ 16,361,000
2. Total Normal Cost Percentage	16.13%	16.76%	16.76%
3. Total Normal Cost [(1) x (2)]	\$ 2,610,482	\$ 2,624,070	\$ 2,742,104
4. Total Amortization Requirement	1,332,956	1,782,494	1,782,494
5. Total Administrative Expenses	<u>80,000</u>	<u>80,000</u>	<u>80,000</u>
6. Total Financial Requirement [(3) + (4) + (5)]	\$ 4,023,438	\$ 4,486,564	\$ 4,604,598
7. Estimated Member Contribution Rate	5.00%	5.00%	5.00%
8. Estimated Member Contributions [(1) x Member Contribution Rate]	<u>809,201</u>	<u>782,837</u>	<u>818,050</u>
9. Estimated Employer Portion of MMO [(6) - (8)]	\$ 3,214,237	\$ 3,703,727	\$ 3,786,548

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION IV – MINIMUM MUNICIPAL OBLIGATION

The following table summarizes the development of the gains and losses from 2023 to 2025.

Table IV-2	
Development of Actuarial Gain / (Loss)	
Unfunded Liability as of 01/01/2023	\$ 9,907,720
Normal Cost	\$ 4,237,816
Contributions made	
a. Employee Contributions	\$ (1,513,634)
b. Local Portion	(6,854,142)
Actual Expenses	\$ 150,554
Interest on above	1,334,752
Plan Changes	\$ 0
Assumption Changes	0
Method Changes	0
Expected Unfunded Liability as of 01/01/2025	\$ 7,263,066
Actual Unfunded Liability as of 01/01/2025	<u>13,249,087</u>
Actuarial Gain / (Loss)	\$ (5,986,021)
- Investment Gain / (Loss)	1,847,430
- Liability Gain / (Loss)	(7,833,451)

This table provides the gains/(losses) for the new amortization base.

Table IV-3	
Total Gain/(Loss)	
Investment Gain / (Loss)	\$ 1,847,430
Liability Gain / (Loss)	(7,833,451)
Timing and interest Gain / (Loss)	<u>(276,351)</u>
Total Gain/(Loss)	\$ (6,262,372)

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION IV – MINIMUM MUNICIPAL OBLIGATION

The following table provides the schedule of amortization bases as of January 1, 2025. The total \$6,262,372 actuarial loss reflects the explicit loss for the two-year period as provided above along with the timing and interest loss due to the delayed contribution method as followed under Act 205.

Table IV-4a							
Schedule of Amortization Bases Including Bond Proceeds for Minimum Contributions as of January 1, 2025							
Original Date	Type	Original Amount	Original Period	Remaining Period	Payment	Balance	Date Fully Amortized
1/1/2003	Investment Loss	\$ 5,622,162	30	8	\$ 29,846	\$ 189,027	12/31/2032
1/1/2007	Assumption Change	(3,114,099)	20	2	(19,219)	(37,131)	12/31/2026
1/1/2009	Assumption Change	(9,855,348)	20	4	(60,527)	(218,504)	12/31/2028
1/1/2009	Actuarial Loss	24,467,226	20	4	150,267	542,465	12/31/2028
1/1/2011	Actuarial Loss	15,494,705	20	6	94,726	480,019	12/31/2030
1/1/2013	Assumption Change	46,266	15	3	327	915	12/31/2027
1/1/2013	Actuarial Loss	27,694,316	20	8	168,581	1,067,684	12/31/2032
1/1/2015	Assumption Change	2,760,787	14	4	301,485	1,088,362	12/31/2028
1/1/2015	Actuarial Loss	1,436,184	14	4	156,835	566,175	12/31/2028
1/1/2017	Assumption Change	4,204,011	13	5	478,480	2,088,276	12/31/2029
1/1/2017	Actuarial Loss	7,896,896	13	5	898,785	3,922,655	12/31/2029
1/1/2019	Actuarial Loss	2,475,309	12	6	295,732	1,498,612	12/31/2030
1/1/2021	Assumption Change	1,436,239	12	8	171,347	1,085,203	12/31/2032
1/1/2021	Actuarial Gain	(1,979,618)	12	8	(236,173)	(1,495,772)	12/31/2032
1/1/2023	Plan Change	178,046	10	8	23,954	151,708	12/31/2032
1/1/2023	Assumption Change	1,497,249	12	10	178,501	1,326,782	12/31/2034
1/1/2023	Actuarial Gain	(5,946,833)	12	10	(708,978)	(5,269,761)	12/31/2034
1/1/2025	Actuarial Loss	6,262,372	13	13	710,242	6,262,372	12/31/2037
					\$ 2,634,211	\$ 13,249,087	

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

SECTION IV – MINIMUM MUNICIPAL OBLIGATION

In 2015, the City adopted Ordinance 57 changing the plan’s amortization method. The Unfunded Actuarial Liability Amortization is outlined in Appendix D and is the lesser of: the traditional amortization of individual bases, or the 10-year level dollar rolling amortization of the total Unfunded Actuarial Liability if the funding level of the Plan exceeds 70% (which applies for this valuation). The chart below shows the determination of the UAL payment for 2025.

Table IV-4b UAL Amortization Payment	
1. Traditional Amortization	\$ 2,634,211
2. 10-year Rolling Amortization	\$ 1,782,494
3. Minimum of (1) or (2)	\$ 1,782,494

By paying the 10-year rolling amortization amount when this amount is less than the traditional amortization amount, the plan will incur losses equal to the difference between these two amortization amounts. These losses will be recognized in future valuations. The City may choose to contribute more to the Plan in any given year.

For the 2025 actuarial valuation, the traditional amortization amount is greater than the 10-year rolling amortization amount.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX A – SUPPLEMENTAL INFORMATION EXCLUDING BOND PROCEEDS

Allentown received the proceeds of a Pension Obligation Bond in 1996 and Note payment in 2013 which improved the financial status of the Plan. This section provides the development of the unfunded liability based upon assets without the bond proceeds and the Note payment and the amortization amount of this unfunded liability.

Under Act 205 section 404, municipalities that issue bonds (or notes) to fund the unfunded actuarial liabilities must complete Exhibit I of the Act 205 form reflecting the funded status and MMO determination of the plan as if the bond issuance (or notes) had not occurred. The contributions used for determining the assets excluding the bonds and the Note payment as of the valuation date are based upon “hypothetical amortization contributions that would have been made had bond issue proceeds not been deposited”, as described on the Act 205 form. In addition, investment earnings exclude earnings on bond issue proceeds (as instructed) by applying the rate of market returns for the year on the assets excluding the bonds.

The tables in this section consist of:

- Market Value of Assets without Bond Proceeds
- Actuarial Value of Assets without Bond Proceeds
- Unfunded Liability without Bond Proceeds
- Actuarial (Gain)/Loss without Bond Proceeds
- Schedule of Amortization bases without Bond Proceeds

Table A-1			
Market Value of Assets with Gain/(Loss) without Bond			
	2023	2024	Total Period
Beginning of Year Market Value	\$ 167,860,445	\$ 194,386,806	\$ 167,860,445
Contributions	16,513,937	16,878,482	33,392,419
Benefit Payments	(14,128,583)	(14,575,340)	(28,703,923)
Administrative Expenses	(125,194)	(126,677)	(251,871)
Investment Earnings*	<u>24,266,201</u>	<u>24,209,323</u>	<u>48,475,524</u>
Estimated Market Value on December 31	\$ 194,386,806	\$ 220,772,594	\$ 220,772,594
Expected Investment Earnings (7.30%)	<u>12,334,855</u>	<u>14,268,279</u>	<u>25,732,146</u>
Expected Market Value on December 31	\$ 182,455,460	\$ 210,831,550	\$ 198,029,216
Investment Gain / (Loss)	<u>11,931,346</u>	<u>9,941,044</u>	<u>22,743,378</u>
End of Year Market Value	\$ 194,386,806	\$ 220,772,594	\$ 220,772,594

* Based upon market value with bond returns in Table II - 3

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX A – SUPPLEMENTAL INFORMATION EXCLUDING BOND PROCEEDS

Table A-2 Development of Actuarial Value of Assets Without Bond 5-Year Smoothing Method				
Market Value of Assets as of January 1, 2025				\$ 118,735,539
Plan Year	Investment Gains / (Losses)	Percent Recognized	Percent Deferred	Amount Deferred
2020	\$ 3,409,643	100%	0%	\$ 0
2021	8,435,675	80%	20%	1,687,135
2022	(20,759,866)	60%	40%	(8,303,946)
2023	6,582,956	40%	60%	3,949,774
2024	5,632,657	20%	80%	4,506,126
				\$ 1,839,089
Preliminary Actuarial Value as of January 1, 2025				\$ 116,896,450
Corridor for Actuarial Value				
- Lower Limit				80% \$ 94,988,431
- Upper Limit				120% \$ 142,482,647
Actuarial Value of Assets as of January 1, 2025				\$ 116,896,450
- as a percent of Market Value of Assets				98.5%

Table A-3 Liabilities/Net (Surplus)/Unfunded Based upon Assets without Bond	
	January 1, 2025
Actuarial Liability	\$ 156,989,496
Actuarial Value of Assets without Bond	116,896,450
Net (Surplus)/Unfunded without Bond (AL – AVA)	\$ 40,093,046

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX A – SUPPLEMENTAL INFORMATION EXCLUDING BOND PROCEEDS

The following table provides the explicit gains/(losses) of the unfunded liability based upon the assets without the bond.

Table A-4	
Development of Actuarial Gain/(Loss) without the Bond	
Unfunded Liability without Bond as of 01/01/2023	\$ 40,479,767
Normal Cost	\$ 4,237,816
Contributions made	
a. Employee Contributions	\$ (1,513,634)
b. Local Portion	(15,359,657)
Actual Expense	\$ 150,554
Interest on above	5,319,244
Plan Changes	\$ 0
Assumption Changes	0
Method Changes	0
Expected Unfunded Liability as of 01/01/2025	\$ 33,314,090
Actual Unfunded Liability as of 01/01/2025	<u>40,093,046</u>
Actuarial Gain / (Loss)	\$ (6,778,956)
- Investment Gain / (Loss)	1,054,495
- Liability Gain / (Loss)	(7,833,451)

Table A-5	
Total Gain/(Loss) without Bond	
Investment Gain / (Loss)	\$ 1,054,495
Liability Gain / (Loss)	(7,833,451)
Timing and interest Gain / (Loss)	<u>(2,084,367)</u>
Total Gain/(Loss)	\$ (8,863,323)

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX A – SUPPLEMENTAL INFORMATION EXCLUDING BOND PROCEEDS

The following table provides the schedule of amortization bases as of January 1, 2025 without bond proceeds. Plan amendments and assumption changes prior to January 1, 2015 have not been adjusted by the 2013 Cancellation Ratio based on the 2013 Note contribution paid by the City, which triggered the application of Act 205 Section 404(h) to the Amortization Bases Including Bond Proceeds.

Table A-6							
Schedule of Amortization Bases Excluding Bond for Minimum Contributions as of January 1, 2025							
Original Date	Type	Original Amount	Original Period	Remaining Period	Annual Payment	Remaining Balance	Date Fully Amortized
1/1/2002	Investment Loss	440,914	30	7	35,021	200,417	12/31/2031
1/1/2003	Investment Loss	4,216,279	30	8	334,193	2,116,571	12/31/2032
1/1/2007	Assumption Change	(3,114,099)	20	2	(286,952)	(554,381)	12/31/2026
1/1/2009	Assumption Change	(8,441,714)	20	4	(774,079)	(2,794,422)	12/31/2028
1/1/2009	Actuarial Loss	21,806,758	20	4	1,999,610	7,218,587	12/31/2028
1/1/2011	Actuarial Loss	15,362,399	20	6	1,402,224	7,105,728	12/31/2030
1/1/2013	Assumption Change	46,266	15	3	4,878	13,660	12/31/2027
1/1/2013	Actuarial Loss	28,941,356	20	8	2,630,327	16,658,853	12/31/2032
1/1/2015	Assumption Change	2,760,787	14	4	301,486	1,088,363	12/31/2028
1/1/2015	Actuarial Loss	797,999	14	4	87,144	314,588	12/31/2028
1/1/2017	Assumption Change	4,204,011	13	5	478,480	2,088,276	12/31/2029
1/1/2017	Actuarial Loss	1,371,433	13	5	156,090	681,238	12/31/2029
1/1/2019	Actuarial Gain	(76,432)	12	6	(9,132)	(46,274)	12/31/2030
1/1/2021	Assumption Change	1,436,239	12	8	171,347	1,085,202	12/31/2032
1/1/2021	Actuarial Gain	(2,024,163)	12	8	(241,487)	(1,529,429)	12/31/2032
1/1/2023	Plan Change	178,046	10	8	23,954	151,708	12/31/2032
1/1/2023	Assumption Change	1,497,249	12	10	178,501	1,326,781	12/31/2034
1/1/2023	Actuarial Gain	(4,396,278)	12	10	(524,122)	(3,895,743)	12/31/2034
1/1/2025	Actuarial Loss	8,863,323	13	13	1,005,227	8,863,323	12/31/2037
					\$ 6,972,710	\$ 40,093,046	

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX A – SUPPLEMENTAL INFORMATION EXCLUDING BOND PROCEEDS

The City adopted Ordinance 57 changing the plan’s amortization method. The Unfunded Actuarial Liability Amortization is outlined in Appendix D and is the lesser of: the traditional amortization of individual bases, or the 10-year level dollar rolling amortization of the total Unfunded Actuarial Liability if the funding level of the Plan exceeds 70% (which applies for this valuation). The chart below shows the determination of the UAL payment for 2025.

Table A-7	
UAL Amortization Payment Excluding Bond	
1. Traditional Amortization	\$ 6,972,710
2. 10-year Rolling Amortization	\$ 5,394,002
3. Minimum of (1) or (2)	\$ 5,394,002

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

The data for this valuation was provided by the City as of January 1, 2025. Cheiron did not audit any of the data; however, we performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standards of Practice No. 23.

The following is a list of data charts contained in this section:

- Summary of Participant Data
- Age/Service Distribution for Active Participants, including counts and total salary
- Counts and Total Benefit Amount by Age for Retirees, Beneficiaries, and Disabled Participants
- Reconciliation of Active, Terminated Vested, and In-Pay Participants

SUMMARY OF PARTICIPANT DATA		
	1/1/2023	1/1/2025
Active Participants		
Count	127	135
New Entrants	9	25
Average Age	43.6	42.0
Average Benefit Service	13.9	12.5
Annual Payroll*	\$ 11,064,056	\$ 11,662,897
Retirees and Beneficiaries Receiving Payments		
Count	191	196
Average Age	70.0	69.7
Annual Benefits	\$ 8,557,461	\$ 9,290,701
Average Monthly Benefit	\$ 3,734	\$ 3,950
Terminated Vested Participants and Inactive Members		
Count**	3	3
Accumulated Member Contributions w/o Interest	\$ 10,195	\$ 1,706
Annual Benefits	\$ 0	\$ 34,015
Average Monthly Benefit	\$ 0	\$ 2,835

The estimated benefit payments for the current plan year are \$9,619,860.

* Includes base pay plus the lesser of the overtime pay and 10% of base pay.

** In 2023, three members entitled to only contributions without interest. In 2025, two members entitled to only contributions without interest and one member entitled to a monthly benefit.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

Summary of Active Data with Pensionable Pay as of January 1, 2025

Attained Age	YEARS OF CREDITED SERVICE																			
	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 & up	
	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.	No.	Average Comp.
Under 25	3	\$ 59,190	1	\$ 64,495	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
25 to 29	7	58,653	6	77,654	1	84,983	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	7	59,072	9	72,305	3	83,116	3	87,899	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	1	59,477	3	72,203	4	85,144	5	89,326	2	94,743	0	0	0	0	0	0	0	0	0	0
40 to 44	1	55,917	2	73,903	0	0	8	87,393	8	90,700	1	97,517	0	0	0	0	0	0	0	0
45 to 49	0	0	2	72,854	0	0	9	88,274	11	90,222	7	90,055	1	141,691	0	0	0	0	0	0
50 to 54	0	0	0	0	0	0	2	89,374	6	91,029	6	93,027	4	94,116	0	0	0	0	0	0
55 to 59	0	0	0	0	0	0	3	88,623	0	0	4	108,879	1	87,299	2	87,272	0	0	0	0
60 to 64	0	0	0	0	0	0	1	85,784	0	0	0	0	1	87,060	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

Summary of Inactive Data as of January 1, 2025

**AGE DISTRIBUTION OF INACTIVE PARTICIPANTS
PENSIONERS AND BENEFICIARIES RECEIVING BENEFITS AS OF JANUARY 1, 2025**

Age	Disability Retirements		Normal, Early Deferred Vested Retirements		Surviving Spouses and Beneficiaries Receiving Benefits		Total	
	Number	Monthly Benefit	Number	Monthly Benefit	Number	Monthly Benefit	Number	Monthly Benefit
Under 55	3	\$ 11,701	9	\$ 40,901	2	\$ 4,568	14	\$ 57,170
55-59	1	3,782	27	152,256	6	15,897	34	171,935
60-64	2	12,142	31	165,671	2	5,881	35	183,694
65-69	0	0	22	113,523	5	12,519	27	126,042
70-74	1	3,679	11	46,799	7	18,497	19	68,975
75-79	1	2,615	10	43,251	8	18,541	19	64,407
80 & Over	3	4,609	23	60,971	22	36,422	48	102,002
Total	11	\$ 38,528	133	\$ 623,372	52	\$ 112,325	196	\$ 774,225

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

Participant Reconciliation from January 1, 2023 To January 1, 2025

	Term.						Total
	Actives	Inactive	Vested	Disabled	Retired	Beneficiary	
January 1, 2023 valuation	127	3	0	10	133	48	321
Additions / QDROs	25					1	26
Reductions							
a. Terminated - not vested, refund due							
b. Refund paid	(2)	(1)					(3)
c. Deaths without beneficiary				(1)	(5)	(4)	(10)
Total	(2)	(1)		(1)	(5)	(4)	(13)
Changes in status							
a. Terminated - vested	(1)		1				
b. Retired	(10)				10		
c. Disabled	(3)			3			
d. Died with beneficiary	(1)			(1)	(5)	7	
e. Data corrections							
Total	(15)		1	2	5	7	
January 1, 2025 valuation	135	2	1	11	133	52	334

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

Active Members	Count	Annual Pay
As of last valuation date	127	\$ 11,064,056
Separations from active service		
Refund of contributions	2	\$ 144,888
Separation with deferred benefit	1	89,233
Separation due refund	0	0
Disability	3	277,060
Death	1	77,890
Retirement with service retirement benefit	10	959,551
Total separations	17	\$ 1,548,621
As of current valuation date using prior pay	110	\$ 9,515,435
As of current valuation date using current pay	110	\$ 10,161,001
New entrants	25	1,501,896
As of current valuation date	135	\$ 11,662,897

Service retirement benefit recipients	Count	Annual Benefit
As of last valuation date	133	\$ 7,035,303
New Benefit recipients	10	720,138
Total	143	\$ 7,755,441
Terminations	0	\$ 0
Deaths	10	308,746
Others	0	0
Total terminations	10	\$ 308,746
COLA increase		33,767
QDRO Decrease		0
As of current valuation date	133	\$ 7,480,462

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

Disability benefit recipients	Count	Annual Benefit
As of last valuation date	10	\$ 339,160
New Benefit recipients	3	146,881
Total	13	\$ 486,041
Terminations	0	\$ 0
Deaths	2	25,990
Others	0	0
Total terminations	2	\$ 25,990
COLA increase		2,287
As of current valuation date	11	\$ 462,338

Surviving Spouses	Count	Annual Benefit
As of last valuation date	48	\$ 1,183,456
New Benefit recipients	8	238,903
Total	56	\$ 1,422,359
Terminations	0	\$ 0
Deaths	4	74,458
Others	0	0
Total terminations	4	\$ 74,458
COLA increase (QDRO)		0
As of current valuation date	52	\$ 1,347,901

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX B – MEMBERSHIP INFORMATION

Inactive Refund Due	Count	Annual Benefit
As of last valuation date	3	\$ 10,195
New recipients	0	0
Total	3	\$ 10,195
Others	1	8,489
Total terminations	1	\$ 8,489
As of current valuation date	2	\$ 1,706

Deferred Benefits	Count	Annual Benefit
As of last valuation date	0	0
New recipients	1	34,015
Total	1	\$ 34,015
Retirees	0	\$ 0
Deaths	0	0
Others	0	0
Total terminations	0	\$ 0
As of current valuation date	1	\$ 34,015

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Normal Retirement

Participants hired prior to January 1, 2012:

Eligibility: 20 years of service.

Basic Benefit: The retirement benefit shall be determined by the rate of monthly pay of the employee at the time of retirement or the highest average annual salary during any five years of service.

Salary will include base pay, longevity, holiday pay, festive pay, shift differential and overtime. Overtime shall be limited to 10% of base pay, but overtime is not limited in the determination of the highest average annual salary during any five years of service. The benefit will be a percent of pay in accordance with the following table:

Years of Service	Percent of Benefit
20	50.5%
21	54.0
22	58.0
23	62.0
24	66.0
25	70.0

The minimum benefit is \$10,400 per year.

Participants hired on or after January 1, 2012:

Eligibility: Age 50 with 20 years of service.

Basic Benefit: The retirement benefit shall be 50% of monthly pay at time of retirement or the highest average annual salary during any five years of service.

Service Increment: One-fortieth (1/40th) times the Basic Benefit for each year of service in excess of 20 years. The total Service Increment cannot exceed \$2,400 in total annual benefit increase (i.e., \$200 additional monthly benefit). Service after attaining age 65 is excluded.

Salary will include base pay, longevity, holiday pay, festive pay, shift differential and overtime. Overtime shall be limited to 10% of base pay, but overtime is not limited in the determination of the highest average annual salary during any five years of service.

The minimum benefit is \$10,400 per year.

2. Early Retirement

None permitted.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

3. Termination Benefits

Vesting 100% after 12 years of service: Termination before normal retirement eligibility: Member becomes eligible for retirement at the point he would have attained eligibility for normal retirement had he continued in employment. Prior to 20 years, the benefit is based upon a pro-rated portion of the normal retirement benefit. After 20 years, the benefit is the normal retirement benefit.

Non-Vested Benefit: Refund of contributions (including any military buy-back contributions, if applicable) without interest.

4. Preretirement Death Benefits

Surviving spouse, dependent child(ren) or dependent parent(s): 100% of the pension benefit applicable to the member.

Other beneficiaries: Refund of contributions (including any military buy-back contributions, if applicable) without interest.

5. Disability Benefits

Less than 2 years of service: 10% of Salary

At least 2 years of service but less than 5 years: 20% of Salary

At least 5 years of service but less than 10 years: 30% of Salary

At least 10 years of service but less than 15 years: 40% of Salary

At least 15 years of service but less than 20 years: 50% of Salary

At least 20 years of service: Same as normal retirement

Salary is defined under normal retirement benefit.

6. Postretirement Death Benefits

Surviving spouse, dependent child(ren) or dependent parent(s): 100% of the pension benefit applicable to the member.

Other beneficiaries: None.

7. Credit for Military Service

Any member with military service prior to becoming a member in the Plan may purchase credited military service, not to exceed five (5) years of such service.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

8. Purchased Service

Not applicable.

9. Employee Contributions

5% of salary per year. Salary will include base pay, longevity, holiday pay, festive pay, shift differential and overtime.

For new hires after 1/1/2012, additional contribution of \$24 per year for a service increment.

10. Cost of Living Adjustment

Participants retiring between January 1, 2005 and December 31, 2011 and their beneficiaries shall receive an annual COLA once each retiree is eligible for the COLA. Annual COLAs do not occur until the pension allowance is less than half of the current salary for a firefighter based upon rank at retirement. Such increases shall be in conformity with the uniform scale, which may be based on the cost of living, but the total of such allowances shall not at any time exceed ½ of the current salary benefit paid to the firefighter of the highest grade.

11. Changes Since Last Valuation (i.e., since January 1, 2023 under Act 205)

None.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

A. Demographic and Economic Assumptions

1. Mortality Rates

Healthy Mortality: RP-2000 Blue Collar Combined Healthy Mortality Table projected generationally from base year 2000 using 50% of Scale AA.

Disabled Mortality: RP-2000 Disabled Mortality Table.

The mortality assumption was set by the City of Allentown Pension Board, which has control over the selection of the pension valuation assumptions, rather than the actuary. Based upon limited data, this mortality assumption was reviewed and appears to be reasonable in terms of reflecting projected mortality improvement in the future. The Board may want to consider updating the mortality assumptions for the next actuarial valuation to reflect more recently published mortality rates.

2. Disability Rates

100% of the 1955 United Auto Workers Table.

Age	Male	Female
30	0.04%	0.06%
35	0.05%	0.08%
40	0.07%	0.10%
45	0.10%	0.15%
50	0.18%	0.26%
55	0.36%	0.49%
60	0.90%	1.21%
>=65	0.00%	0.00%

3. Termination Rates

Plan specific rates based, in part, on the following table:

Age	Male	Female
25	5.00%	7.50%
30	3.75%	5.00%
35	2.50%	3.75%
40	1.50%	2.50%
45	0.75%	1.25%
>=50	0.00%	0.00%

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

4. Retirement Rates for Active Employees

Immediately upon attainment of age 62 with 20 years of service. If younger than age 62, a select and ultimate table with increasing rates.

The retirement assumption was set by the City of Allentown Pension Board, which has control over the selection of the pension valuation assumptions, rather than the actuary. Based upon our best professional judgment and with limited available data, we would be inclined to state that this retirement assumption may not represent the best estimate of future retirement experience under the Plan, although the new benefit tier might change retirement behavior to better match this assumption in the future.

Age	Years of Service					
	<=20	21	22	23	24	>=25
<=46	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
47	0.0%	0.0%	0.0%	0.0%	15.0%	15.0%
48	0.0%	0.0%	0.0%	0.0%	15.0%	15.0%
49	0.0%	0.0%	0.0%	0.0%	15.0%	15.0%
50	0.0%	0.0%	0.0%	10.0%	20.0%	20.0%
51	0.0%	0.0%	0.0%	10.0%	20.0%	20.0%
52	0.0%	0.0%	0.0%	10.0%	20.0%	20.0%
53	0.0%	0.0%	0.0%	10.0%	20.0%	20.0%
54	0.0%	0.0%	0.0%	10.0%	25.0%	25.0%
55	0.0%	5.0%	5.0%	15.0%	25.0%	25.0%
56	0.0%	10.0%	10.0%	15.0%	25.0%	25.0%
57	0.0%	10.0%	10.0%	15.0%	25.0%	25.0%
58	0.0%	10.0%	10.0%	15.0%	25.0%	25.0%
59	0.0%	10.0%	10.0%	15.0%	25.0%	25.0%
60	0.0%	25.0%	25.0%	25.0%	25.0%	25.0%
61	0.0%	25.0%	25.0%	25.0%	25.0%	25.0%
>=62	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Assumed retirement date for active participants who are assumed to terminate prior to attaining retirement eligibility or current terminated vested participants is the date the Member would have attained eligibility for normal retirement had the member continued in employment.

5. Percent Married

80% of active members are assumed to be married.

6. Age of Spouse

Female spouse is assumed to be two years younger than male spouse.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

7. Investment Return

7.30% per annum, net of investment expenses.

8. Low-Default-Risk Obligation Measure (LDRM) Discount Rate

5.54%

9. Salary Increase

Salary increases:

With Merit Increases: 4.5% compounded annually.
Without Merit Increases: 3.5% compounded annually.

10. Overtime

Participants are assumed to attain overtime pay equal to a ratio of base pay at retirement. The ratio is calculated separately for each participant. The numerator of the ratio is the average of the participant's overtime earnings during the three-year period prior to the valuation. The denominator is the individual's base pay during the year immediately preceding the valuation.

11. Credit for Military Service

Military service purchased as of the valuation date, as provided by the City, is reflected in the valuation results. Future possible military service purchases are not assumed.

12. Form of Annuity

Married participants: 100% Joint and Survivor Annuity.

Single participants: Life Annuity.

13. Cost of Living Adjustment

2.4% per year upon eligibility to receive a COLA.

For participants eligible to receive a COLA, the pay of the same rank as the participant as of their retirement date is projected into the future to determine the date that future benefit increases are expected to begin.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

14. Expenses

Expenses are assumed to equal the two-year average of paid administrative expenses from the most recent actuarial valuation, rounded to the nearest \$10,000. Expenses are assumed to increase based on without merit salary scale in the future for MMO projections.

15. Rationale for Assumptions

In accordance with Actuarial Standard of Practice No. 27, the rationale for the 7.30% discount rate is based on the Board's investment risk preference, the Plan's current asset allocation, and the investment manager's capital market outlook. The LDROM discount rate of 5.54% is based on the December 31, 2024 FTSE Pension Liability Index.

The demographic assumptions were selected by the City of Allentown Pension Board. Some of these assumptions including the mortality rates in 2017 have been updated since Cheiron became the actuary to the Plan to better reflect plan experience and the Board's expectations. These assumptions are monitored for reasonability.

16. Changes since last biennial valuation (i.e., since January 1, 2023 under Act 205)

None.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Funding Method

Under the entry age normal actuarial cost method, the individual entry age normal cost is determined for each participant by calculating the annual contribution rate as a level percent of pay required to fund that individual's expected benefits, based on the current plan provisions, over the participant's expected active working lifetime with the Plan at entry.

At the valuation date, the present value of future normal cost is calculated for each individual participant by multiplying the entry age normal cost by the present value of the participant's expected future salary with the Plan. The cost for each participant is then summed to yield the present value of future normal costs.

The excess of the present value of future benefits for all individuals at the valuation date over the present value of future normal costs is called the actuarial liability, or past service liability.

2. Amortization Method

Under Act 44 of 2009, the unfunded actuarial liability is amortized as a level dollar amount over the lesser of:

- (a) (i) 30 years, with respect to the initial liability as of 1/1/85 (or first valuation);
- (ii) 20 years, with respect to actuarial gains and losses;
- (iii) 15 years, with respect to changes due to actuarial assumptions;
- (iv) 10 years, with respect to changes in benefits not mandated by the state for active members;
- (v) 1 year, with respect to changes in benefits not mandated by the state for currently retired members;
- (vi) 20 years, with respect to state mandated benefit changes;

or

- (b) The average assumed working lifetime of active employees as of the date the liability was established, rounded to the next highest whole year.

If the Plan for the prior biennial valuation was determined to be moderately or severely distressed, then the amortization period is only determined by (a).

If the Actuarial Value of Assets exceeds the Actuarial Liability, then 10% of the excess assets are applied to reduce the Normal Cost plus expenses for the MMO.

**CITY OF ALLENTOWN FIREMEN'S PENSION PLAN
ACTUARIAL VALUATION AS OF JANUARY 1, 2025**

APPENDIX D – ACTUARIAL ASSUMPTIONS AND METHODS

Due to the Ordinance 57 passed by City Council on September 16, 2015 if the Plan is greater than 70% funded, the amortization amount is the lesser of the traditional amortization of individual bases using the amortization periods described above or the 10-year level-dollar rolling amortization of the total unfunded actuarial liability. This comparison between the two amortization amounts occurs biennially for the odd-year actuarially valuation, and the amortization method employed by the subsequent MMO amounts based upon the biennial valuation cannot change. For example, amortization method for the two MMO determinations associated with the unfunded actuarial liability as of the odd-year valuation date must, over the two year period, both be based on either the 10-year rolling amortization method or the traditional layered amortization method.

This 10-year rolling amortization method is asymptotic in nature, where 100% full funding of the UAL is not projected to occur if all assumptions are met and the 10-year-rolling method applies, although the funding ratio is projected to improve.

3. Actuarial Value of Assets

The actuarial value of assets is determined in accordance with Section 3.16 of Revenue Procedure 2000-40, using a five-year smoothing period. The resulting actuarial value of assets is then limited to be no greater than 120% and no less than 80% of the market value of assets on the valuation date.

4. Disclosure regarding Models Used

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Projections in this report were developed using P-scan, our proprietary tool for the intended purpose of developing projections. The model is also used to stress test the impact of volatile asset returns over the projection period. While the assumptions individually are reasonable for the underlying report that supports the projections, specifically for projection purposes, they are also considered reasonable in the aggregate.

5. Changes in Method Since Last Valuation

None