



**Municipal Pensions
Oversight Board**

**City of Martinsburg
West Virginia
Firemen's Pension and Relief Fund**

GASB 68 Actuarial Information for the
Measurement Period Ending
June 30, 2023

Bolton

Submitted by:

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November 10, 2023

Mr. Mark Spickler
Finance Director
City of Martinsburg
125 W. Race Street
Martinsburg, WV 25401

Firefighter Josh Williams
Pension Board Secretary
City of Martinsburg
Firemen's Pension and Relief Fund

Re: City of Martinsburg Firemen's Pension and Relief Fund
GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2023

Dear Mark,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Martinsburg Firemen's Pension and Relief Fund to be included in the City's financial statements for FY 2023. The GASB 67 information has been provided as of June 30, 2023 (the GASB 68 measurement date for FY 2023).

Methodology, Reliance and Certification

This report is prepared for the City. The report contains the actuarial information to be included with the City's financial statements for the year ending June 30, 2023 (the City's fiscal year end date) as required by GASB 68. This information has been prepared for use in the financial statements of the City. This information is not intended for, nor should it be used for, any additional purposes.

The total pension liability is based on the July 1, 2022 actuarial valuation rolled forward to June 30, 2023. The methods, assumptions, and participant data used are detailed in the July 1, 2022 actuarial valuation report with the exception of the actuarial cost method. These calculations are based on the Entry Age Normal cost method as required by GASB 67. The calculation of the Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2023 is contained in the July 1, 2021 actuarial valuation report. The discount rate assumption may have changed if a blended rate was used for GASB purposes.

The included calculations are based on a blended discount rate of 4.15%. The plan's expected gross rate of investment return of 4.25% has been blended with the 3.86% yield corresponding to the 20-year maturity on a municipal general obligation AA bond yield curve published on Fidelity's Fixed Income Market Data webpage as of June 30, 2023. The development of the blended discount rate is included within this report.

The long-term nominal expected rate of return on pension plan investments was determined using a methodology approved by the Municipal Pensions Oversight Board (MPOB) and is based on the funded status (current and projected), equity exposure, and funding policy.

The included calculations assume that the members and the City will continue to make all required contributions in accordance with the City's funding policy.

Methodology, Reliance and Certification (cont.)

These calculations and comparisons with assets are applicable for the valuation date only. The future is uncertain, and the plan may become better funded or more poorly funded in the future. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. Other assumptions may be equally valid. The future is uncertain and the plan's actual experience will differ from the assumptions; the differences may be significant or material because the results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

The City is responsible for selecting the plan's funding policy based on five methods allowed for under state law. The actuarial valuation methods are chosen by the actuary in accordance with actuarial standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries and as required by GASB 67 & 68. The MPOB selects the asset valuation methods and assumptions; these selections are reviewed by a qualified actuary no less than every five years. The actuary shall provide a report to the Board with recommendations on any changes to the actuarial process. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The City and MPOB are solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

The City could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. That type of analysis would be a separate assignment.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the City or, in this case, a measure of accounting expense. It does not affect the cost of the plan. As the experience of the plan evolves, it is normal for the level of contributions and expense of the plan to change.

We make every effort to ensure that our calculations are accurately performed. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

The valuation was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.



Methodology, Reliance and Certification (cont.)

This report is based on plan provisions, census data, and asset data submitted by the City. We have relied on this information for purposes of preparing this report, but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The City is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton Partners, Inc.'s actuaries have not provided any investment advice to the City.

The information in this report was prepared for the internal use of the City, the plan and their auditors in connection with our actuarial valuations of the pension plan as required by GASB 68. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, an assumption based on the expected long-term rate of return on plan investments is used. If the plan is expected to become insolvent, the return assumption is blended with a long-term municipal bond rate. Using a lower discount rate assumption, such as a rate solely based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. 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, 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 undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2022 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,



James Ritchie, ASA, EA, FCA, MAAA



Jordan McClane, FSA, EA, FCA, MAAA



City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2023, were as follows:

Total pension liability	\$ 41,322,497
Plan fiduciary net position	(4,258,655)
Employer's net pension liability	<u>\$ 37,063,842</u>
Plan fiduciary net position as a percentage of the total pension liability	10.31%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2022 rolled forward to June 30, 2023 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50 percent
Salary increases	Rates vary by years of service
Single discount rate (BOY)	4.15%
Single discount rate (EOY)	4.15%
Investment rate of return (BOY)	4.25%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	4.25%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	3.69%
Long-term municipal bond rate (EOY)	3.86%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019
Year Fund is projected to be fully funded	2055
Year assets are expected to be depleted for a closed plan	N/A

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2022 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 3.15%	Current Discount Rate 4.15%	1% Increase 5.15%
Employer's net pension liability	\$ 43,983,726	\$ 37,063,842	\$ 31,584,745

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Changes in the Net Pension Liability

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/22	\$ 39,771,775	\$ 3,787,170	\$ 35,984,605
Changes for the year:			
Service cost	1,305,685		1,305,685
Interest	1,619,083		1,619,083
Changes of benefit terms	-		-
Differences between expected and actual experience	141,447		141,447
Changes of assumptions	-		-
Contributions - employer (including Premium Tax Allocation)		1,426,388	(1,426,388)
Contributions - member		240,661	(240,661)
Net investment income*		323,929	(323,929)
Benefit payments, including refunds of member contributions	(1,515,493)	(1,515,493)	-
Administrative expense		(4,000)	4,000
Other		-	-
Net Changes	<u>1,550,722</u>	<u>471,485</u>	<u>1,079,237</u>
Balances at 6/30/23	<u>\$ 41,322,497</u>	<u>\$ 4,258,655</u>	<u>\$ 37,063,842</u>

Return on Investments	8.4%
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*The Plan Fiduciary Net Position as of July 1, 2022 provided to Bolton by the City does not match the Plan Fiduciary Net Position as of June 30, 2022 as provided in the prior GASB report. The difference of \$15,971 has been excluded from investment income for the measurement period ending June 30, 2023.

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2023

Note	Description	Amount
A	Service cost	\$ 1,305,685
B	Interest on the total pension liability	1,619,083
A	Changes of benefit terms	-
C	Differences between expected and actual experience	79,446
C	Changes of assumptions	(1,115,356)
A	Employee contributions	(240,661)
D	Projected earnings on pension plan investments	(164,091)
C	Differences between expected and actual earnings on plan investments	(28,207)
A	Pension plan administrative expense	4,000
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 1,459,899

Notes:

A Provided in the Changes in Net Pension Liability exhibit.

B Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Projected Earnings (a) x (b) x (c)
Beginning total pension liability	\$ 39,771,775	100%	4.15%	\$ 1,650,529
Service cost (End of Year)	1,305,685	0%	4.15%	-
Benefit payments, including refunds of employee contributions	(1,515,493)	50%	4.15%	(31,446)
Total interest on the total pension liability				\$ 1,619,083

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) x (b) x (c)
Beginning plan fiduciary net position	\$ 3,787,170	100%	4.25%	\$ 160,955
Employer contributions	1,426,388	50%	4.25%	30,311
Employee contributions	240,661	50%	4.25%	5,114
Benefit payments, including refunds of employee contributions	(1,515,493)	50%	4.25%	(32,204)
Administrative expense and other	(4,000)	50%	4.25%	(85)
Total Projected Earnings				\$ 164,091

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2023, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 766,929	\$ 156,444
Changes of assumptions	340,478	3,539,059
Net difference between projected and actual earnings on pension plan investments	-	3,816
Total	\$ 1,107,407	\$ 3,699,319

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2024	\$ (940,399)
2025	(1,127,058)
2026	(520,780)
2027	(3,675)
2028	-
Thereafter	-

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Changes in the Employer's Net Pension Liability and Related Ratios
 Last 10 Fiscal Years

Total pension liability	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Service cost	\$ 1,305,685	\$ 1,409,416	\$ 1,301,177	\$ 1,263,830	\$ 1,288,466	\$ 1,285,344	\$ 1,419,431	\$ 783,440	\$ 775,244	\$ 733,383
Interest	1,619,083	1,430,950	1,511,960	1,529,903	1,443,011	1,407,678	1,300,640	1,324,370	1,308,568	1,326,380
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	141,447	879,459	80,966	(782,224)	562,259	(549,358)	412,930	(79,277)	(487,090)	-
Changes of assumptions	-	(4,205,565)	(2,266,822)	1,702,382	(653,935)	(367,921)	(3,115,954)	8,776,101	763,505	946,799
Benefit payments, including refunds of member contributions	(1,515,493)	(1,487,831)	(1,528,974)	(1,403,283)	(1,346,280)	(1,318,338)	(1,380,286)	(1,285,531)	(1,154,037)	(1,131,681)
Net change in total pension liability	1,550,722	(1,973,571)	(901,693)	2,310,608	1,293,521	457,405	(1,363,239)	9,519,103	1,206,190	1,874,881
Total pension liability - beginning	39,771,775	41,745,346	42,647,039	40,336,431	39,042,910	38,585,505	39,948,744	30,429,641	29,223,451	27,348,570
Total pension liability - ending (a)	\$ 41,322,497	\$ 39,771,775	\$ 41,745,346	\$ 42,647,039	\$ 40,336,431	\$ 39,042,910	\$ 38,585,505	\$ 39,948,744	\$ 30,429,641	\$ 29,223,451
Plan fiduciary net position	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Contributions - employer (including Premium Tax Allocation)	\$ 1,426,388	\$ 1,383,776	\$ 1,329,921	\$ 1,266,051	\$ 1,193,866	\$ 1,144,488	\$ 1,089,467	\$ 1,027,488	\$ 983,274	\$ 995,355
Contributions - member	240,661	262,204	198,902	194,778	176,173	173,464	193,583	163,644	156,408	152,184
Net investment income	323,929	(559,199)	989,605	51,053	100,158	232,309	279,899	(24,790)	65,233	286,465
Benefit payments, including refunds of member contributions	(1,515,493)	(1,487,831)	(1,528,974)	(1,403,283)	(1,346,280)	(1,318,338)	(1,380,286)	(1,285,531)	(1,154,037)	(1,131,681)
Administrative expense	(4,000)	(2,000)	(2,000)	(2,000)	(2,000)	(2,550)	(1,000)	(1,000)	(1,000)	(1,000)
Other	-	-	-	-	(1,250)	-	-	-	-	-
Net change in plan fiduciary net position	\$ 471,485	\$ (403,050)	\$ 987,454	\$ 106,599	\$ 120,667	\$ 229,373	\$ 181,663	\$ (120,189)	\$ 49,878	\$ 301,323
Plan fiduciary net position - beginning	3,787,170	4,190,220	3,202,766	3,096,167	2,975,500	2,746,127	2,564,464	2,693,372	2,643,494	2,342,171
Plan fiduciary net position - ending (b)	\$ 4,258,655	\$ 3,787,170	\$ 4,190,220	\$ 3,202,766	\$ 3,096,167	\$ 2,975,500	\$ 2,746,127	\$ 2,573,183	\$ 2,693,372	\$ 2,643,494
Employer's net pension liability - ending (a)-(b)	\$ 37,063,842	\$ 35,984,605	\$ 37,555,126	\$ 39,444,273	\$ 37,240,264	\$ 36,067,410	\$ 35,839,378	\$ 37,375,561	\$ 27,736,269	\$ 26,579,957
Plan fiduciary net position as a percentage of the total pension liability	10.31%	9.52%	10.04%	7.51%	7.68%	7.62%	7.12%	6.44%	8.85%	9.05%
Covered payroll	\$ 2,495,684	\$ 2,272,406	\$ 2,054,670	\$ 2,098,326	\$ 2,137,952	\$ 2,039,496	\$ 1,962,902	\$ 1,825,463	\$ 1,863,130	\$ 1,880,224
Employer's net pension liability as a percentage of covered payroll	1485.12%	1583.55%	1827.79%	1879.80%	1741.87%	1768.45%	1825.84%	2047.46%	1488.69%	1413.66%
Expected average remaining service years of all participants	5.00	5.00	5.00	5.00	6.00	5.83	5.71	5.66	5.61	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2023.

Changes of assumptions: There were no changes for FY2023.

*The Plan Fiduciary Net Position as of July 1, 2022 provided to Bolton by the City does not match the Plan Fiduciary Net Position as of June 30, 2022 as provided in the prior GASB report. The difference of \$15,971 has been excluded from investment income for the measurement period ending June 30, 2023.

*The Plan Fiduciary Net Position as of June 30, 2021 provided to Bolton by the City was adjusted to remove the payables for non-vested terminated members who did not request a refund of contributions. The liability associated with those refunds is instead included in the Total Pension Liability as of June 30, 2021.

*Market value of assets as of July 1, 2016, excludes \$8,719, included in the market value of assets as of June 30, 2016, used for the actuarial valuation report for the fiscal year end June 30, 2016.

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Actuarially determined contribution	\$ 3,149,600	\$ 2,901,836	\$ 2,824,980	\$ 2,785,253	\$ 2,847,951	\$ 2,519,020	\$ 2,401,195	\$ 2,184,720	\$ 1,606,308	\$ 1,568,205
Contributions in relation to the actuarially determined contribution										
Employer provided	1,071,443	1,006,255	945,331	888,393	835,180	785,449	738,972	695,534	654,938	680,168
State provided	354,945	377,521	384,590	377,658	358,686	359,039	350,495	331,954	328,336	315,187
Contribution deficiency (excess)	<u>\$ 1,723,212</u>	<u>\$ 1,518,060</u>	<u>\$ 1,495,059</u>	<u>\$ 1,519,202</u>	<u>\$ 1,654,085</u>	<u>\$ 1,374,532</u>	<u>\$ 1,311,728</u>	<u>\$ 1,157,232</u>	<u>\$ 623,034</u>	<u>\$ 572,850</u>
Covered payroll	\$ 2,495,684	\$ 2,272,406	\$ 2,054,670	\$ 2,098,326	\$ 2,137,952	\$ 2,039,496	\$ 1,962,902	\$ 1,825,463	\$ 1,863,130	\$ 1,880,224
Contributions as a percentage of covered employee payroll	57.15%	60.89%	64.73%	60.34%	55.84%	56.12%	55.50%	56.29%	52.78%	52.94%

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. The assumption shown below are those used in the 7/1/2021 actuarial valuation to calculate the FY2023 ADC. Assumptions used to determine all contributions in the past would not have been the same.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	15 to 27.5 years
Asset valuation method	4-year smoothed market
Inflation	2.50 percent
Salary increases	Rates vary by years of service
Investment rate of return	4.25%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

In conformity with paragraph 33b of Statement 68, the effects of differences between projected and actual earnings on pension plan investments are recognized in pension expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Plan Investments											
Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027
2019	\$ 34,202	5	\$ 6,840	6,840	6,840	6,840	6,842				
2020	89,525	5		\$ 17,905	17,905	17,905	17,905	17,905			
2021	(845,530)	5			\$ (169,106)	(169,106)	(169,106)	(169,106)	(169,106)		
2022	740,601	5				\$ 148,120	148,120	148,120	148,120	148,121	
2023	(159,838)	5					\$ (31,968)	(31,968)	(31,968)	(31,968)	(31,966)
Net increase (decrease) in pension expense							\$ (28,207)	\$ (35,049)	\$ (52,954)	\$ 116,153	\$ (31,966)

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on Pension Plan Investments

Year	Investment Earnings Less than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2019	\$ 34,202	\$ -	\$ 34,202	\$ -	\$ -
2020	89,525	-	71,620	17,905	-
2021	-	845,530	507,318	-	338,212
2022	740,601	-	296,240	444,361	-
2023	-	159,838	31,968	-	127,870
				\$ 462,266	\$ 466,082

Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33a of Statement 68, the effects of differences between expected and actual experience are recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Expected and Actual Experience																			
Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Thereafter
Prior	-	-																	
2014	-	-																	
2015	(487,090)	5.607269			\$ (86,868)	(86,868)	(86,868)	(86,868)	(86,868)	(52,750)									
2016	(79,277)	5.659196				\$ (14,009)	(14,009)	(14,009)	(14,009)	(14,009)	(9,232)								
2017	412,930	5.705384					\$ 72,375	72,375	72,375	72,375	72,375	51,055							
2018	(549,358)	5.829770						\$ (94,233)	(94,233)	(94,233)	(94,233)	(94,233)	(78,193)						
2019	562,259	6.000000							\$ 93,710	93,710	93,710	93,710	93,710	93,709					
2020	(782,224)	5.000000								\$ (156,445)	(156,445)	(156,445)	(156,445)	(156,444)					
2021	80,966	5.000000									\$ 16,193	16,193	16,193	16,193	16,194				
2022	879,459	5.000000										\$ 175,892	175,892	175,892	175,892	175,891			
2023	141,447	5.000000											\$ 28,289	28,289	28,289	28,289	28,291		
Net increase (decrease) in pension expense													\$ 79,446	\$ 157,639	\$ 220,375	\$ 204,180	\$ 28,291	\$ -	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2014	-	-	-	-	-
2015	-	487,090	487,090	-	-
2016	-	79,277	79,277	-	-
2017	412,930	-	412,930	-	-
2018	-	549,358	549,358	-	-
2019	562,259	-	468,550	93,709	-
2020	-	782,224	625,780	-	156,444
2021	80,966	-	48,579	32,387	-
2022	879,459	-	351,784	527,675	-
2023	141,447	-	28,289	113,158	-
				\$ 766,929	\$ 156,444

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
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Schedule of Changes of Assumptions

In conformity with paragraph 33a of Statement 68, the effects of changes of assumptions should be recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions																			
Year	Changes of Assumptions	Recognition Period (Years)	Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Thereafter
Prior	\$ -	-																	-
2014	-	-																	
2015	763,505	5,607,269			\$ 136,163	136,163	136,163	136,163	136,163	82,690									
2016	8,776,101	5,659,196				\$ 1,550,768	1,550,768	1,550,768	1,550,768	1,550,768	1,022,261								
2017	(3,115,954)	5,705,384					\$ (546,143)	(546,143)	(546,143)	(546,143)	(546,143)	(385,239)							
2018	(367,921)	5,829,770					\$ (63,111)	(63,111)	(63,111)	(63,111)	(63,111)	(63,111)	(52,366)						
2019	(653,935)	6,000,000						\$ (108,989)	(108,989)	(108,989)	(108,989)	(108,989)	(108,989)	(108,990)					
2020	1,702,382	5,000,000							\$ 340,476	340,476	340,476	340,476	340,476						
2021	(2,266,822)	5,000,000								\$ (453,364)	(453,364)	(453,364)	(453,364)	(453,366)					
2022	(4,205,565)	5,000,000									\$ (841,113)	(841,113)	(841,113)	(841,113)	(841,113)	(841,113)			
2023	-	5,000,000																	
Net increase (decrease) in pension expense													\$ (1,115,356)	\$ (1,062,989)	\$ (1,294,479)	\$ (841,113)	\$ -	\$ -	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2014	-	-	-	-	-
2015	763,505	-	763,505	-	-
2016	8,776,101	-	8,776,101	-	-
2017	-	3,115,954	3,115,954	-	-
2018	-	367,921	367,921	-	-
2019	-	653,935	544,945	-	108,990
2020	1,702,382	-	1,361,904	340,478	-
2021	-	2,266,822	1,360,092	-	906,730
2022	-	4,205,565	1,682,226	-	2,523,339
2023	-	-	-	-	-
				\$ 340,478	\$ 3,539,059

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
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Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Gross Normal Cost (BOY)			Employee Contributions (BOY)			Employer Normal Cost (BOY)			Expenses (MOY)			Employer Contributions (MOY)			Premium Tax Allocation (MOY)		
	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total
2023	\$ 1,068,572	\$ -	\$ 1,068,572	\$ 240,661	\$ -	\$ 240,661	\$ 827,911	\$ -	\$ 827,911	\$ 4,000	\$ -	\$ 4,000	\$ 1,071,443	\$ -	\$ 1,071,443	\$ 354,945	\$ -	\$ 354,945
2024	\$ 1,075,120	\$ 33,618	\$ 1,108,738	\$ 209,177	\$ 6,940	\$ 216,117	\$ 865,943	\$ 26,678	\$ 892,621	\$ 2,101	\$ -	\$ 2,101	\$ 1,038,954	\$ 27,239	\$ 1,066,193	\$ 414,563	\$ -	\$ 414,563
2025	\$ 1,078,046	\$ 80,648	\$ 1,158,694	\$ 209,114	\$ 16,619	\$ 225,733	\$ 868,932	\$ 64,029	\$ 932,961	\$ 2,122	\$ 32	\$ 2,154	\$ 1,075,420	\$ 65,407	\$ 1,140,827	\$ 417,668	\$ -	\$ 417,668
2026	\$ 1,079,142	\$ 121,210	\$ 1,200,352	\$ 209,185	\$ 24,936	\$ 234,121	\$ 869,957	\$ 96,274	\$ 966,231	\$ 2,111	\$ 97	\$ 2,208	\$ 1,122,289	\$ 98,396	\$ 1,220,685	\$ 438,058	\$ -	\$ 438,058
2027	\$ 1,055,102	\$ 172,287	\$ 1,227,389	\$ 204,978	\$ 35,419	\$ 240,397	\$ 850,124	\$ 136,868	\$ 986,992	\$ 2,131	\$ 132	\$ 2,263	\$ 1,166,255	\$ 139,878	\$ 1,306,133	\$ 448,398	\$ -	\$ 448,398
2028	\$ 1,003,398	\$ 240,536	\$ 1,243,934	\$ 196,247	\$ 49,439	\$ 245,686	\$ 807,151	\$ 191,097	\$ 998,248	\$ 2,151	\$ 201	\$ 2,352	\$ 1,202,245	\$ 195,317	\$ 1,397,562	\$ 458,996	\$ -	\$ 458,996
2029	\$ 944,061	\$ 330,767	\$ 1,274,828	\$ 186,518	\$ 67,984	\$ 254,502	\$ 757,543	\$ 262,783	\$ 1,020,326	\$ 2,170	\$ 308	\$ 2,478	\$ 1,226,774	\$ 268,617	\$ 1,495,391	\$ 469,860	\$ -	\$ 469,860
2030	\$ 887,586	\$ 417,138	\$ 1,304,724	\$ 177,346	\$ 85,693	\$ 263,039	\$ 710,240	\$ 331,445	\$ 1,041,685	\$ 2,189	\$ 385	\$ 2,574	\$ 1,261,268	\$ 338,800	\$ 1,600,068	\$ 484,630	\$ -	\$ 484,630
2031	\$ 836,914	\$ 511,273	\$ 1,348,187	\$ 169,034	\$ 104,990	\$ 274,024	\$ 667,880	\$ 406,283	\$ 1,074,163	\$ 2,208	\$ 466	\$ 2,674	\$ 1,296,780	\$ 415,293	\$ 1,712,073	\$ 497,311	\$ -	\$ 497,311
2032	\$ 801,230	\$ 597,122	\$ 1,398,352	\$ 163,046	\$ 122,542	\$ 285,588	\$ 638,184	\$ 474,580	\$ 1,112,764	\$ 2,189	\$ 552	\$ 2,741	\$ 1,346,806	\$ 485,112	\$ 1,831,918	\$ 512,572	\$ -	\$ 512,572
2033	\$ 756,551	\$ 681,809	\$ 1,438,360	\$ 155,496	\$ 139,840	\$ 295,336	\$ 601,055	\$ 541,969	\$ 1,143,024	\$ 2,206	\$ 640	\$ 2,846	\$ 1,406,146	\$ 554,006	\$ 1,960,152	\$ 524,738	\$ -	\$ 524,738
2034	\$ 705,198	\$ 779,026	\$ 1,484,224	\$ 146,825	\$ 159,726	\$ 306,551	\$ 558,373	\$ 619,300	\$ 1,177,673	\$ 2,222	\$ 695	\$ 2,917	\$ 1,464,345	\$ 633,018	\$ 2,097,363	\$ 538,780	\$ -	\$ 538,780
2035	\$ 666,456	\$ 871,333	\$ 1,537,789	\$ 140,248	\$ 178,564	\$ 318,812	\$ 526,208	\$ 692,769	\$ 1,218,977	\$ 2,198	\$ 831	\$ 3,029	\$ 1,536,010	\$ 708,168	\$ 2,244,178	\$ 554,545	\$ -	\$ 554,545
2036	\$ 631,338	\$ 963,415	\$ 1,594,753	\$ 134,092	\$ 197,340	\$ 331,432	\$ 497,246	\$ 766,075	\$ 1,263,321	\$ 2,212	\$ 893	\$ 3,105	\$ 1,618,192	\$ 783,078	\$ 2,401,270	\$ 569,878	\$ -	\$ 569,878
2037	\$ 596,378	\$ 1,056,286	\$ 1,652,664	\$ 127,995	\$ 216,265	\$ 344,260	\$ 468,383	\$ 840,021	\$ 1,308,404	\$ 2,225	\$ 958	\$ 3,183	\$ 1,710,715	\$ 858,644	\$ 2,569,359	\$ 586,909	\$ -	\$ 586,909
2038	\$ 564,567	\$ 1,149,490	\$ 1,714,057	\$ 122,168	\$ 235,245	\$ 357,413	\$ 442,399	\$ 914,245	\$ 1,356,644	\$ 2,238	\$ 1,025	\$ 3,263	\$ 1,814,716	\$ 934,496	\$ 2,749,214	\$ 617,095	\$ -	\$ 617,095
2039	\$ 522,953	\$ 1,249,501	\$ 1,772,454	\$ 113,579	\$ 255,622	\$ 369,201	\$ 409,374	\$ 993,879	\$ 1,403,253	\$ 2,250	\$ 1,095	\$ 3,345	\$ 1,925,785	\$ 1,015,874	\$ 2,941,659	\$ 631,807	\$ -	\$ 631,807
2040	\$ 489,082	\$ 1,362,950	\$ 1,852,032	\$ 106,375	\$ 278,770	\$ 385,145	\$ 382,707	\$ 1,084,180	\$ 1,466,887	\$ 2,261	\$ 1,168	\$ 3,429	\$ 2,039,428	\$ 1,108,147	\$ 3,147,575	\$ 646,886	\$ -	\$ 646,886
2041	\$ 466,626	\$ 1,461,420	\$ 1,928,046	\$ 102,031	\$ 298,769	\$ 400,800	\$ 364,595	\$ 1,162,651	\$ 1,527,246	\$ 2,225	\$ 1,245	\$ 3,470	\$ 2,179,560	\$ 1,188,345	\$ 3,367,905	\$ 662,342	\$ -	\$ 662,342
2042	\$ 430,415	\$ 1,567,656	\$ 1,998,071	\$ 95,283	\$ 320,375	\$ 415,658	\$ 335,132	\$ 1,247,281	\$ 1,582,413	\$ 2,281	\$ 1,276	\$ 3,557	\$ 2,328,872	\$ 1,274,786	\$ 3,603,658	\$ 693,703	\$ -	\$ 693,703
2043	\$ 383,011	\$ 1,686,353	\$ 2,069,364	\$ 85,897	\$ 344,545	\$ 430,442	\$ 297,114	\$ 1,341,808	\$ 1,638,922	\$ 2,289	\$ 1,357	\$ 3,646	\$ 2,484,532	\$ 1,371,382	\$ 3,855,914	\$ 713,090	\$ -	\$ 713,090
2044	\$ 321,228	\$ 1,810,225	\$ 2,131,453	\$ 73,138	\$ 369,889	\$ 443,027	\$ 248,090	\$ 1,440,336	\$ 1,688,426	\$ 2,246	\$ 1,491	\$ 3,737	\$ 2,653,712	\$ 1,472,116	\$ 4,125,828	\$ 741,196	\$ -	\$ 741,196
2045	\$ 266,125	\$ 1,943,286	\$ 2,209,411	\$ 61,997	\$ 397,334	\$ 459,331	\$ 204,128	\$ 1,545,952	\$ 1,750,080	\$ 2,251	\$ 1,629	\$ 3,880	\$ 2,834,545	\$ 1,580,091	\$ 4,414,636	\$ 758,960	\$ -	\$ 758,960
2046	\$ 221,544	\$ 2,060,893	\$ 2,282,437	\$ 53,385	\$ 421,645	\$ 475,030	\$ 168,159	\$ 1,639,248	\$ 1,807,407	\$ 2,255	\$ 1,722	\$ 3,977	\$ 3,048,219	\$ 1,675,442	\$ 4,723,661	\$ 794,723	\$ -	\$ 794,723
2047	\$ 190,594	\$ 2,178,621	\$ 2,369,215	\$ 47,055	\$ 446,070	\$ 493,125	\$ 143,539	\$ 1,732,551	\$ 1,876,090	\$ 2,258	\$ 1,818	\$ 4,076	\$ 3,283,514	\$ 1,770,803	\$ 5,054,317	\$ 813,838	\$ -	\$ 813,838
2048	\$ 162,854	\$ 2,287,670	\$ 2,450,524	\$ 41,157	\$ 469,001	\$ 510,158	\$ 121,697	\$ 1,818,669	\$ 1,940,366	\$ 2,259	\$ 1,919	\$ 4,178	\$ 3,549,286	\$ 1,858,833	\$ 5,408,119	\$ 833,431	\$ -	\$ 833,431
2049	\$ 145,905	\$ 2,386,824	\$ 2,532,729	\$ 37,127	\$ 490,091	\$ 527,218	\$ 108,778	\$ 1,896,733	\$ 2,005,511	\$ 2,259	\$ 2,023	\$ 4,282	\$ 3,848,045	\$ 1,938,642	\$ 5,786,687	\$ 873,819	\$ -	\$ 873,819
2050	\$ 123,889	\$ 2,495,212	\$ 2,619,101	\$ 31,725	\$ 513,187	\$ 544,912	\$ 92,164	\$ 1,982,025	\$ 2,074,189	\$ 2,315	\$ 2,074	\$ 4,389	\$ 4,165,976	\$ 2,025,779	\$ 6,191,755	\$ 934,801	\$ -	\$ 934,801
2051	\$ 91,381	\$ 2,601,969	\$ 2,693,350	\$ 23,724	\$ 536,083	\$ 559,807	\$ 67,657	\$ 2,065,886	\$ 2,133,543	\$ 2,254	\$ 2,302	\$ 4,556	\$ 4,513,547	\$ 2,111,631	\$ 6,625,178	\$ 957,328	\$ -	\$ 957,328
2052	\$ 58,199	\$ 2,716,118	\$ 2,774,317	\$ 15,068	\$ 560,516	\$ 575,584	\$ 43,131	\$ 2,155,602	\$ 2,198,733	\$ 2,310	\$ 2,360	\$ 4,670	\$ 4,885,648	\$ 2,203,292	\$ 7,088,940	\$ 980,419	\$ -	\$ 980,419
2053	\$ 37,111	\$ 2,823,263	\$ 2,860,374	\$ 9,528	\$ 583,340	\$ 592,868	\$ 27,583	\$ 2,239,923	\$ 2,267,506	\$ 2,243	\$ 2,604	\$ 4,847	\$ 4,783,063	\$ 2,289,630	\$ 7,072,693	\$ -	\$ -	\$ -
2054	\$ 23,944	\$ 2,930,492	\$ 2,954,436	\$ 6,266	\$ 606,060	\$ 612,326	\$ 17,678	\$ 2,324,432	\$ 2,342,110	\$ 2,235	\$ 2,733	\$ 4,968	\$ 20,284	\$ 2,376,045	\$ 2,396,329	\$ -	\$ -	\$ -
2055	\$ 18,038	\$ 3,035,935	\$ 3,053,973	\$ 4,715	\$ 628,390	\$ 633,105	\$ 13,323	\$ 2,407,545	\$ 2,420,868	\$ 2,291	\$ 2,865	\$ 5,156	\$ 15,895	\$ 2,461,038	\$ 2,476,933	\$ -	\$ -	\$ -
2056	\$ 13,904	\$ 3,145,717	\$ 3,159,621	\$ 3,633	\$ 651,401	\$ 655,034	\$ 10,271	\$ 2,494,316	\$ 2,504,587	\$ 2,281	\$ 3,004	\$ 5,285	\$ 12,767	\$ 2,549,773	\$ 2,562,540	\$ -	\$ -	\$ -
2057	\$ 9,888	\$ 3,256,889	\$ 3,266,777	\$ 2,589	\$ 674,487	\$ 677,076	\$ 7,299	\$ 2,582,402	\$ 2,589,701	\$ 2,269	\$ 3,215	\$ 5,484	\$ 9,721	\$ 2,639,922	\$ 2,649,643	\$ -	\$ -	\$ -
2058	\$ 7,656	\$ 3,369,649	\$ 3,377,305	\$ 2,005	\$ 697,785	\$ 699,790	\$ 5,651	\$ 2,671,864	\$ 2,677,515	\$ 2,255	\$ 3,366	\$ 5,621	\$ 8,025	\$ 2,731,416	\$ 2,739,441	\$ -	\$ -	\$ -
2059	\$ 4,955	\$ 3,489,350	\$ 3,494,305	\$ 1,301	\$ 722,378	\$ 723,679	\$ 3,654	\$ 2,766,972	\$ 2,770,626	\$ 2,239	\$ 3,593	\$ 5,832	\$ 5,970	\$ 2,828,751	\$ 2,834,721	\$ -	\$ -	\$ -
2060	\$ 3,088	\$ 3,614,053	\$ 3,617,141	\$ 825	\$ 747,976	\$ 748,801	\$ 2,263	\$ 2,866,077	\$ 2,868,340	\$ 2,295	\$ 3,683	\$ 5,978	\$ 4,607	\$ 2,930,030	\$ 2,934,637	\$ -	\$ -	\$ -
2061	\$ 844	\$ 3,746,432	\$ 3,747,276	\$ 230	\$ 775,125	\$ 775,355	\$ 614	\$ 2,971,307	\$ 2,971,921	\$ 2,276	\$ 3,925	\$ 6,201	\$ 2,903	\$ 3,037,715	\$ 3,040,618	\$ -	\$ -	\$ -
2062	\$ -	\$ 3,883,840	\$ 3,883,840	\$ -	\$ 803,171	\$ 803,171	\$ -	\$ 3,080,669	\$ 3,080,669	\$ 2,255	\$ 4,101	\$ 6,356	\$ 2,255	\$ 3,149,553	\$ 3,151,808	\$ -	\$ -	\$ -
2063	\$ -	\$ 4,024,455	\$ 4,024,455	\$ -	\$ 831,851	\$ 831,851	\$ -	\$ 3,192,604	\$ 3,192,604	\$ 2,232	\$ 4,283	\$ 6,515	\$ 2,232	\$ 3,264,024	\$ 3,266,256	\$ -	\$ -	\$ -

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
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Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Actuarial Accrued Liability (BOY)			Closed Group Asset Projection						
	Current Members	Future Members	Total	Fiduciary Net Position (BOY)	Funded Ratio (BOY)	Projected EEC Contributions (MOY)	Projected ER Contrib + Premium Tax (MOY)	Projected BP (MOY)	Projected Admin Expenses (MOY)	Projected Investment Earnings
2023	\$ 36,582,459	\$ -	\$ 36,582,459	\$ 3,787,170	10.35%	\$ 240,661	\$ 1,426,387	\$ 1,515,493	\$ 4,000	\$ 355,871
2024	\$ 37,703,838	\$ -	\$ 37,703,838	\$ 4,290,596	11.38%	\$ 213,576	\$ 1,453,517	\$ 1,575,619	\$ 2,101	\$ 184,230
2025	\$ 38,818,311	\$ 34,730	\$ 38,853,041	\$ 4,564,199	11.76%	\$ 213,511	\$ 1,493,088	\$ 1,612,347	\$ 2,122	\$ 195,916
2026	\$ 39,945,699	\$ 119,211	\$ 40,064,910	\$ 4,852,245	12.15%	\$ 213,584	\$ 1,560,347	\$ 1,647,851	\$ 2,111	\$ 208,827
2027	\$ 41,085,893	\$ 248,375	\$ 41,334,268	\$ 5,185,041	12.62%	\$ 209,288	\$ 1,614,653	\$ 1,722,765	\$ 2,131	\$ 222,447
2028	\$ 42,172,994	\$ 434,551	\$ 42,607,545	\$ 5,506,533	13.06%	\$ 200,374	\$ 1,661,241	\$ 1,833,610	\$ 2,151	\$ 234,571
2029	\$ 43,139,220	\$ 697,439	\$ 43,836,659	\$ 5,766,958	13.37%	\$ 190,440	\$ 1,696,634	\$ 1,943,366	\$ 2,170	\$ 243,866
2030	\$ 43,972,588	\$ 1,062,694	\$ 45,035,282	\$ 5,952,362	13.54%	\$ 181,075	\$ 1,745,898	\$ 2,054,383	\$ 2,189	\$ 250,250
2031	\$ 44,669,147	\$ 1,529,743	\$ 46,198,890	\$ 6,073,013	13.60%	\$ 172,589	\$ 1,794,091	\$ 2,151,770	\$ 2,208	\$ 254,164
2032	\$ 45,243,049	\$ 2,109,785	\$ 47,352,834	\$ 6,139,880	13.57%	\$ 166,475	\$ 1,859,378	\$ 2,234,421	\$ 2,189	\$ 256,513
2033	\$ 45,719,752	\$ 2,798,103	\$ 48,517,855	\$ 6,185,636	13.53%	\$ 158,766	\$ 1,930,884	\$ 2,326,649	\$ 2,206	\$ 257,859
2034	\$ 46,075,970	\$ 3,597,915	\$ 49,673,885	\$ 6,204,290	13.47%	\$ 149,913	\$ 2,003,125	\$ 2,425,010	\$ 2,222	\$ 257,916
2035	\$ 46,293,362	\$ 4,526,219	\$ 50,819,581	\$ 6,188,012	13.37%	\$ 143,197	\$ 2,090,555	\$ 2,504,831	\$ 2,198	\$ 257,244
2036	\$ 46,398,105	\$ 5,581,838	\$ 51,979,943	\$ 6,171,978	13.30%	\$ 136,912	\$ 2,188,070	\$ 2,578,346	\$ 2,212	\$ 256,935
2037	\$ 46,395,629	\$ 6,768,929	\$ 53,164,558	\$ 6,173,338	13.31%	\$ 130,687	\$ 2,297,624	\$ 2,641,882	\$ 2,225	\$ 257,829
2038	\$ 46,291,729	\$ 8,093,220	\$ 54,384,949	\$ 6,215,371	13.43%	\$ 124,737	\$ 2,431,813	\$ 2,705,710	\$ 2,238	\$ 260,970
2039	\$ 46,085,080	\$ 9,560,381	\$ 55,645,461	\$ 6,324,943	13.72%	\$ 115,967	\$ 2,557,592	\$ 2,797,971	\$ 2,250	\$ 266,147
2040	\$ 45,732,065	\$ 11,182,298	\$ 56,914,363	\$ 6,464,428	14.14%	\$ 108,612	\$ 2,686,314	\$ 2,857,685	\$ 2,261	\$ 273,371
2041	\$ 45,267,767	\$ 12,978,104	\$ 58,245,871	\$ 6,672,779	14.74%	\$ 104,177	\$ 2,841,902	\$ 2,885,648	\$ 2,225	\$ 284,817
2042	\$ 44,731,775	\$ 14,938,060	\$ 59,669,835	\$ 7,015,802	15.68%	\$ 97,287	\$ 3,022,575	\$ 2,918,674	\$ 2,281	\$ 302,354
2043	\$ 44,101,533	\$ 17,075,969	\$ 61,177,502	\$ 7,517,063	17.04%	\$ 87,703	\$ 3,197,622	\$ 2,980,894	\$ 2,289	\$ 325,829
2044	\$ 43,331,558	\$ 19,411,480	\$ 62,743,038	\$ 8,145,034	18.80%	\$ 74,676	\$ 3,394,908	\$ 3,059,762	\$ 2,246	\$ 354,735
2045	\$ 42,383,924	\$ 21,951,367	\$ 64,335,291	\$ 8,907,345	21.02%	\$ 63,301	\$ 3,593,505	\$ 3,116,707	\$ 2,251	\$ 389,873
2046	\$ 41,280,428	\$ 24,700,005	\$ 65,980,433	\$ 9,835,067	23.83%	\$ 54,508	\$ 3,842,942	\$ 3,154,241	\$ 2,255	\$ 433,572
2047	\$ 40,045,235	\$ 27,640,525	\$ 67,685,760	\$ 11,009,593	27.49%	\$ 48,045	\$ 4,097,352	\$ 3,179,593	\$ 2,258	\$ 488,170
2048	\$ 38,699,395	\$ 30,774,349	\$ 69,473,744	\$ 12,461,310	32.20%	\$ 42,022	\$ 4,382,717	\$ 3,207,513	\$ 2,259	\$ 555,155
2049	\$ 37,238,931	\$ 34,074,479	\$ 71,313,410	\$ 14,231,432	38.22%	\$ 37,908	\$ 4,721,864	\$ 3,212,919	\$ 2,259	\$ 637,317
2050	\$ 35,693,208	\$ 37,513,170	\$ 73,206,378	\$ 16,413,343	45.98%	\$ 32,392	\$ 5,100,777	\$ 3,222,704	\$ 2,315	\$ 737,693
2051	\$ 34,048,850	\$ 41,093,825	\$ 75,142,675	\$ 19,059,186	55.98%	\$ 24,223	\$ 5,470,875	\$ 3,259,406	\$ 2,254	\$ 856,982
2052	\$ 32,263,243	\$ 44,807,043	\$ 77,070,286	\$ 22,149,606	68.65%	\$ 15,385	\$ 5,866,067	\$ 3,290,628	\$ 2,310	\$ 995,792
2053	\$ 30,335,277	\$ 48,640,702	\$ 78,975,979	\$ 25,733,912	84.83%	\$ 9,728	\$ 4,783,063	\$ 3,289,070	\$ 2,243	\$ 1,125,266
2054	\$ 28,304,979	\$ 52,565,575	\$ 80,870,554	\$ 28,360,656	100.20%	\$ 6,398	\$ 20,284	\$ 3,267,521	\$ 2,235	\$ 1,137,130
2055	\$ 26,196,669	\$ 56,575,387	\$ 82,772,056	\$ 26,254,711	100.22%	\$ 4,814	\$ 15,895	\$ 3,230,505	\$ 2,291	\$ 1,048,279
2056	\$ 24,030,393	\$ 60,659,538	\$ 84,689,931	\$ 24,090,903	100.25%	\$ 3,709	\$ 12,767	\$ 3,188,330	\$ 2,281	\$ 957,115
2057	\$ 21,810,803	\$ 64,819,133	\$ 86,629,936	\$ 21,873,884	100.29%	\$ 2,643	\$ 9,721	\$ 3,144,302	\$ 2,269	\$ 863,731
2058	\$ 19,537,647	\$ 69,047,997	\$ 88,585,644	\$ 19,603,408	100.34%	\$ 2,047	\$ 8,025	\$ 3,095,011	\$ 2,255	\$ 768,225
2059	\$ 17,215,883	\$ 73,337,442	\$ 90,553,325	\$ 17,284,438	100.40%	\$ 1,328	\$ 5,970	\$ 3,045,043	\$ 2,239	\$ 670,661
2060	\$ 14,843,647	\$ 77,693,271	\$ 92,536,918	\$ 14,915,115	100.48%	\$ 842	\$ 4,607	\$ 2,991,257	\$ 2,295	\$ 571,056
2061	\$ 12,423,561	\$ 82,119,921	\$ 94,543,482	\$ 12,498,068	100.60%	\$ 235	\$ 2,903	\$ 2,936,415	\$ 2,276	\$ 469,436
2062	\$ 9,954,278	\$ 86,627,865	\$ 96,582,143	\$ 10,031,950	100.78%	\$ -	\$ 2,255	\$ 2,876,463	\$ 2,255	\$ 365,869
2063	\$ 7,440,383	\$ 91,223,886	\$ 98,664,269	\$ 7,521,356	101.09%	\$ -	\$ 2,232	\$ 2,812,331	\$ 2,232	\$ 260,517

City of Martinsburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2023 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Calculation of Single Equivalent Rate					
Fiscal Year	"Funded" Portion of BP	"Unfunded" Portion of BP	PV of "Funded" BP	PV of "Unfunded" BP	PV of BP Using a Single DR
2023	\$ 1,515,493	\$ -	\$ 1,484,280	\$ -	\$ 1,484,984
2024	\$ 1,575,619	\$ -	\$ 1,480,257	\$ -	\$ 1,482,362
2025	\$ 1,612,347	\$ -	\$ 1,453,009	\$ -	\$ 1,456,455
2026	\$ 1,647,851	\$ -	\$ 1,424,465	\$ -	\$ 1,429,197
2027	\$ 1,722,765	\$ -	\$ 1,428,512	\$ -	\$ 1,434,616
2028	\$ 1,833,610	\$ -	\$ 1,458,440	\$ -	\$ 1,466,061
2029	\$ 1,943,366	\$ -	\$ 1,482,724	\$ -	\$ 1,491,884
2030	\$ 2,054,383	\$ -	\$ 1,503,526	\$ -	\$ 1,514,249
2031	\$ 2,151,770	\$ -	\$ 1,510,599	\$ -	\$ 1,522,816
2032	\$ 2,234,421	\$ -	\$ 1,504,674	\$ -	\$ 1,518,280
2033	\$ 2,326,649	\$ -	\$ 1,502,907	\$ -	\$ 1,517,935
2034	\$ 2,425,010	\$ -	\$ 1,502,584	\$ -	\$ 1,519,048
2035	\$ 2,504,831	\$ -	\$ 1,488,770	\$ -	\$ 1,506,509
2036	\$ 2,578,346	\$ -	\$ 1,469,990	\$ -	\$ 1,488,915
2037	\$ 2,641,882	\$ -	\$ 1,444,809	\$ -	\$ 1,464,798
2038	\$ 2,705,710	\$ -	\$ 1,419,392	\$ -	\$ 1,440,393
2039	\$ 2,797,971	\$ -	\$ 1,407,953	\$ -	\$ 1,430,139
2040	\$ 2,857,685	\$ -	\$ 1,379,378	\$ -	\$ 1,402,442
2041	\$ 2,885,648	\$ -	\$ 1,336,091	\$ -	\$ 1,359,720
2042	\$ 2,918,674	\$ -	\$ 1,296,291	\$ -	\$ 1,320,466
2043	\$ 2,980,894	\$ -	\$ 1,269,952	\$ -	\$ 1,294,862
2044	\$ 3,059,762	\$ -	\$ 1,250,410	\$ -	\$ 1,276,145
2045	\$ 3,116,707	\$ -	\$ 1,221,756	\$ -	\$ 1,248,084
2046	\$ 3,154,241	\$ -	\$ 1,186,062	\$ -	\$ 1,212,770
2047	\$ 3,179,593	\$ -	\$ 1,146,854	\$ -	\$ 1,173,790
2048	\$ 3,207,513	\$ -	\$ 1,109,759	\$ -	\$ 1,136,901
2049	\$ 3,212,919	\$ -	\$ 1,066,311	\$ -	\$ 1,093,426
2050	\$ 3,222,704	\$ -	\$ 1,025,956	\$ -	\$ 1,053,042
2051	\$ 3,259,406	\$ -	\$ 995,338	\$ -	\$ 1,022,584
2052	\$ 3,290,628	\$ -	\$ 963,907	\$ -	\$ 991,231
2053	\$ 3,289,070	\$ -	\$ 924,173	\$ -	\$ 951,272
2054	\$ 3,267,521	\$ -	\$ 880,689	\$ -	\$ 907,372
2055	\$ 3,230,505	\$ -	\$ 835,215	\$ -	\$ 861,337
2056	\$ 3,188,330	\$ -	\$ 790,706	\$ -	\$ 816,209
2057	\$ 3,144,302	\$ -	\$ 747,997	\$ -	\$ 772,855
2058	\$ 3,095,011	\$ -	\$ 706,256	\$ -	\$ 730,418
2059	\$ 3,045,043	\$ -	\$ 666,526	\$ -	\$ 689,982
2060	\$ 2,991,257	\$ -	\$ 628,060	\$ -	\$ 650,779
2061	\$ 2,936,415	\$ -	\$ 591,410	\$ -	\$ 613,385
2062	\$ 2,876,463	\$ -	\$ 555,718	\$ -	\$ 576,912
2063	\$ 2,812,331	\$ -	\$ 521,178	\$ -	\$ 541,568