



**Municipal Pensions
Oversight Board**

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

GASB 68 Actuarial Information for the
Measurement Period Ending
June 30, 2022

Bolton

Submitted by:

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December 5, 2022

Mrs. Kimberly Karakiozis
Finance Director
City of Clarksburg
222 W. Main Street
Clarksburg, WV 26301

Lieutenant Adam Pulice
Pension Board Secretary
City of Clarksburg
Firemen's Pension and Relief Fund

Re: City of Clarksburg Firemen's Pension and Relief Fund
GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2022

Dear Kimberly,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Clarksburg Firemen's Pension and Relief Fund to be included in the City's financial statements for FY 2022. The GASB 67 information has been provided as of June 30, 2022 (the GASB 68 measurement date for FY 2022).

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, 2022 (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, 2021 actuarial valuation rolled forward to June 30, 2022. The methods, assumptions, and participant data used are detailed in the July 1, 2021 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, 2022 is contained in the July 1, 2020 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 the valuation discount rate of 6.00%. The plan's expected gross rate of investment return of 6.00% has been blended with the 3.69% 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, 2022. The development of the blended discount rate is included within this report. Since the plan assets are estimated to be sufficient to cover benefit payments throughout the projection period, the liability discount rate used for this June 30, 2022 measurement date is equal to the plan's expected rate of investment return.

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 four 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.

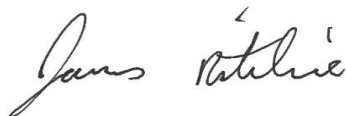
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, 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, 2021 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 Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2022, were as follows:

Total pension liability	\$ 34,138,745
Plan fiduciary net position	(14,456,589)
Employer's net pension liability	<u>\$ 19,682,156</u>
Plan fiduciary net position as a percentage of the total pension liability	42.35%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2021 rolled forward to June 30, 2022 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)	5.50%
Single discount rate (EOY)	6.00%
Investment rate of return (BOY)	5.50%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	6.00%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	1.92%
Long-term municipal bond rate (EOY)	3.69%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019
Year Fund is projected to be fully funded	2036
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, 2021 actuarial valuation report.

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

	1% Decrease 5.00%	Current Discount Rate 6.00%	1% Increase 7.00%
Employer's net pension liability	\$ 24,221,987	\$ 19,682,156	\$ 15,968,290

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 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 6/30/21	\$ 34,592,764	\$ 15,192,901	\$ 19,399,863
Changes for the year:			
Service cost	792,231		792,231
Interest	1,859,840		1,859,840
Changes of benefit terms	664,648		664,648
Differences between expected and actual experience	(63,093)		(63,093)
Changes of assumptions	(2,152,658)		(2,152,658)
Contributions - employer (including Premium Tax Allocation)		2,433,357	(2,433,357)
Contributions - member		203,585	(203,585)
Net investment income		(1,810,353)	1,810,353
Benefit payments, including refunds of member contributions	(1,554,987)	(1,554,987)	-
Administrative expense		(7,914)	7,914
Other		-	-
Net Changes	<u>(454,019)</u>	<u>(736,312)</u>	<u>282,293</u>
Balances at 6/30/22	<u>\$ 34,138,745</u>	<u>\$ 14,456,589</u>	<u>\$ 19,682,156</u>
Return on Investments		(11.5%)	

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2022

Note	Description	Amount
A	Service cost	\$ 792,231
B	Interest on the total pension liability	1,859,840
A	Changes of benefit terms	664,648
C	Differences between expected and actual experience	354,519
C	Changes of assumptions	(2,281,601)
A	Employee contributions	(203,585)
D	Projected earnings on pension plan investments	(865,146)
C	Differences between expected and actual earnings on plan investments	138,650
A	Pension plan administrative expense	7,914
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 467,470

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	\$ 34,592,764	100%	5.50%	\$ 1,902,602
Service cost (End of Year)	792,231	0%	5.50%	-
Benefit payments, including refunds of employee contributions	(1,554,987)	50%	5.50%	(42,762)
Total interest on the total pension liability				\$ 1,859,840

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	\$ 15,192,901	100%	5.50%	\$ 835,610
Employer contributions	2,433,357	50%	5.50%	66,917
Employee contributions	203,585	50%	5.50%	5,599
Benefit payments, including refunds of employee contributions	(1,554,987)	50%	5.50%	(42,762)
Administrative expense and other	(7,914)	50%	5.50%	(218)
Total Projected Earnings				\$ 865,146

City of Clarksburg, West Virginia Firemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



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

At June 30, 2022, 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	\$ 276,757	\$ 108,309
Changes of assumptions	-	2,999,153
Net difference between projected and actual earnings on pension plan investments	1,013,676	-
Total	\$ 1,290,433	\$ 3,107,462

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:	
2023	\$ (1,915,585)
2024	(548,115)
2025	111,572
2026	535,099
2027	-
Thereafter	-

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



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

Total pension liability	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Service cost	\$ 792,231	\$ 944,371	\$ 948,245	\$ 906,710	\$ 911,837	\$ 1,041,846	\$ 739,794	\$ 735,159	\$ 729,815	\$ -
Interest	1,859,840	1,868,340	1,744,625	1,646,488	1,604,493	1,540,729	1,503,073	1,480,035	1,492,730	-
Changes of benefit terms	664,648	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(63,093)	(198,743)	1,107,034	660,159	(1,021,000)	(1,006,489)	(511,633)	(837,150)	-	-
Changes of assumptions	(2,152,658)	(4,692,144)	-	-	-	(2,433,972)	4,020,701	-	-	-
Benefit payments, including refunds of member contributions	(1,554,987)	(1,391,691)	(1,259,528)	(1,241,719)	(1,199,305)	(1,223,009)	(1,239,292)	(1,250,939)	(1,303,181)	-
Net change in total pension liability	(454,019)	(3,469,867)	2,540,376	1,971,638	296,025	(2,080,895)	4,512,643	127,105	919,364	-
Total pension liability - beginning	34,592,764	38,062,631	35,522,255	33,550,617	33,254,592	35,335,487	30,822,844	30,695,739	29,776,375	-
Total pension liability - ending (a)	\$ 34,138,745	\$ 34,592,764	\$ 38,062,631	\$ 35,522,255	\$ 33,550,617	\$ 33,254,592	\$ 35,335,487	\$ 30,822,844	\$ 30,695,739	\$ -
Plan fiduciary net position	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Contributions - employer (including Premium Tax Allocation)	\$ 2,433,357	\$ 2,399,993	\$ 2,298,344	\$ 2,034,183	\$ 2,029,582	\$ 1,790,929	\$ 1,361,271	\$ 1,288,742	\$ 1,210,474	\$ -
Contributions - member	203,585	185,487	176,172	167,038	155,596	148,321	145,720	140,550	135,019	-
Net investment income	(1,810,353)	2,712,034	133,379	517,666	561,109	586,180	315,511	185,060	465,521	-
Benefit payments, including refunds of member contributions	(1,554,987)	(1,391,691)	(1,259,528)	(1,241,719)	(1,199,305)	(1,223,009)	(1,239,292)	(1,250,939)	(1,303,181)	-
Administrative expense	(7,914)	(7,500)	(7,500)	-	(7,500)	(7,500)	(6,000)	(6,000)	(6,000)	-
Other	-	-	-	(7,500)	-	-	-	-	-	-
Net change in plan fiduciary net position	\$ (736,312)	\$ 3,898,323	\$ 1,340,867	\$ 1,469,668	\$ 1,539,482	\$ 1,294,921	\$ 577,210	\$ 357,413	\$ 501,833	\$ -
Plan fiduciary net position - beginning	15,192,901	11,294,578	9,953,711	8,484,043	6,944,559	5,649,638	5,072,427	4,715,014	4,213,181	-
Plan fiduciary net position - ending (b)	\$ 14,456,589	\$ 15,192,901	\$ 11,294,578	\$ 9,953,711	\$ 8,484,043	\$ 6,944,559	\$ 5,649,637	\$ 5,072,427	\$ 4,715,014	\$ -
Employer's net pension liability - ending (a)-(b)	\$ 19,682,156	\$ 19,399,863	\$ 26,768,053	\$ 25,568,544	\$ 25,066,574	\$ 26,310,033	\$ 29,685,850	\$ 25,750,417	\$ 25,980,725	\$ -
Plan fiduciary net position as a percentage of the total pension liability	42.35%	43.92%	29.67%	28.02%	25.29%	20.88%	15.99%	16.46%	15.36%	N/A
Covered payroll	\$ 1,830,115	\$ 2,056,574	\$ 2,064,594	\$ 1,963,141	\$ 1,912,017	\$ 1,919,071	\$ 1,868,455	\$ 1,826,835	\$ 1,812,838	N/A
Employer's net pension liability as a percentage of covered payroll	1075.46%	943.31%	1296.53%	1302.43%	1311.00%	1370.98%	1588.79%	1409.56%	1433.15%	N/A
Expected average remaining service years of all participants	3.00	3.00	4.00	4.00	3.78	3.96	4.01	3.85	N/A	N/A

Notes to Schedule:

Benefit changes: The Plan adopted an open Deferred Retirement Option Program (DROP).

Changes of assumptions: The discount rate changed from 5.50% to 6.00%.

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 2,034,507	\$ 2,453,333	\$ 2,340,972	\$ 2,327,809	\$ 2,026,406	\$ 2,031,009	\$ 2,124,224	\$ 1,697,409	\$ 1,676,866	\$ 1,603,979
Contributions in relation to the actuarially determined contribution										
Employer provided	1,959,262	1,863,796	1,861,120	1,581,814	1,592,742	1,345,298	936,850	867,454	803,198	743,702
State provided	474,095	536,197	437,224	452,369	436,840	445,631	424,421	421,288	407,276	473,392
Contribution deficiency (excess)	<u>\$ (398,850)</u>	<u>\$ 53,340</u>	<u>\$ 42,628</u>	<u>\$ 293,626</u>	<u>\$ (3,176)</u>	<u>\$ 240,080</u>	<u>\$ 762,953</u>	<u>\$ 408,667</u>	<u>\$ 466,392</u>	<u>\$ 386,885</u>
Covered payroll	\$ 1,830,115	\$ 2,056,574	\$ 2,064,594	\$ 1,963,141	\$ 1,912,017	\$ 1,919,071	\$ 1,868,455	\$ 1,826,835	\$ 1,812,838	\$ 1,712,139
Contributions as a percentage of covered employee payroll	132.96%	116.70%	111.32%	103.62%	106.15%	93.32%	72.86%	70.55%	66.77%	71.09%

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 7/1/2020 actuarial valuation to calculate the FY2022 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 28.5 years
Asset valuation method	4-year smoothed market
Inflation	2.50 percent
Salary increases	Rates vary by years of service
Investment rate of return	5.50%, 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 Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 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)	2018	2019	2020	2021	2022	2023	2024	2025	2026
2018	\$ (189,422)	5	\$ (37,884)	(37,884)	(37,884)	(37,884)	(37,886)				
2019	(69,664)	5		\$ (13,933)	(13,933)	(13,933)	(13,933)	(13,932)			
2020	394,494	5			\$ 78,899	78,899	78,899	78,899	78,898		
2021	(2,117,648)	5				\$ (423,530)	(423,530)	(423,530)	(423,530)	(423,528)	
2022	2,675,499	5					\$ 535,100	535,100	535,100	535,100	535,099
Net increase (decrease) in pension expense							\$ 138,650	\$ 176,537	\$ 190,468	\$ 111,572	\$ 535,099

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, 2022 (c)	Balances at June 30, 2022	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018	\$ -	\$ 189,422	\$ 189,422	\$ -	\$ -
2019	-	69,664	55,732	-	13,932
2020	394,494	-	236,697	157,797	-
2021	-	2,117,648	847,060	-	1,270,588
2022	2,675,499	-	535,100	2,140,399	-
				\$ 2,298,196	\$ 1,284,520

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	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Thereafter
Prior	-	-																	
2013	-	-																	
2014	-	-																	
2015	(837,150)	3.852277				\$ (217,313)	(217,313)	(217,313)	(185,211)										
2016	(511,633)	4.009013					\$ (127,621)	(127,621)	(127,621)	(127,621)	(1,149)								
2017	(1,006,489)	3.958952						\$ (254,231)	(254,231)	(254,231)	(243,796)								
2018	(1,021,000)	3.782276							\$ (269,943)	(269,943)	(269,943)	(211,171)							
2019	660,159	4.000000								\$ 165,040	165,040	165,040	165,039						
2020	1,107,034	4.000000									\$ 276,759	276,759	276,759	276,757					
2021	(198,743)	3.000000										\$ (66,248)	(66,248)	(66,247)					
2022	(63,093)	3.000000											\$ (21,031)	(21,031)	(21,031)				
Net increase (decrease) in pension expense													\$ 354,519	\$ 189,479	\$ (21,031)	\$ -	\$ -	\$ -	\$ -

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, 2022 (c)	Balances at June 30, 2022	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	837,150	837,150	-	-
2016	-	511,633	511,633	-	-
2017	-	1,006,489	1,006,489	-	-
2018	-	1,021,000	1,021,000	-	-
2019	660,159	-	660,159	-	-
2020	1,107,034	-	830,277	276,757	-
2021	-	198,743	132,496	-	66,247
2022	-	63,093	21,031	-	42,062
				\$ 276,757	\$ 108,309

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



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	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Thereafter
Prior	\$ -	-																	-
2013	-	-																	-
2014	-	-																	-
2015	-	3.852277																	-
2016	4,020,701	4.009013					\$ 1,002,915	1,002,915	1,002,915	1,002,915	9,041								-
2017	(2,433,972)	3.958952						\$ (614,802)	(614,802)	(614,802)	(589,566)								-
2018	-	3.782276																	-
2019	-	4.000000																	-
2020	-	4.000000																	-
2021	(4,692,144)	3.000000										\$ (1,564,048)	(1,564,048)	(1,564,048)					-
2022	(2,152,658)	3.000000											\$ (717,553)	(717,553)	(717,552)				-
Net increase (decrease) in pension expense													\$ (2,281,601)	\$ (2,281,601)	\$ (717,552)	\$ -	\$ -	\$ -	\$ -

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, 2022 (c)	Balances at June 30, 2022	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	-	-	-	-
2016	4,020,701	-	4,020,701	-	-
2017	-	2,433,972	2,433,972	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
2020	-	-	-	-	-
2021	-	4,692,144	3,128,096	-	1,564,048
2022	-	2,152,658	717,553	-	1,435,105
				\$ -	\$ 2,999,153

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



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
2022	\$ 616,259	\$ -	\$ 616,259	\$ 203,585	\$ -	\$ 203,585	\$ 412,674	\$ -	\$ 412,674	\$ 7,914	\$ -	\$ 7,914	\$ 1,959,262	\$ -	\$ 1,959,262	\$ 474,095	\$ -	\$ 474,095
2023	\$ 563,062	\$ 136,467	\$ 699,529	\$ 130,276	\$ 37,420	\$ 167,696	\$ 432,786	\$ 99,047	\$ 531,833	\$ 7,943	\$ (63)	\$ 7,880	\$ 1,322,659	\$ 101,912	\$ 1,424,571	\$ 438,312	\$ -	\$ 438,312
2024	\$ 514,646	\$ 227,089	\$ 741,735	\$ 119,830	\$ 62,043	\$ 181,873	\$ 394,816	\$ 165,046	\$ 559,862	\$ 7,968	\$ 190	\$ 8,158	\$ 1,354,176	\$ 170,115	\$ 1,524,291	\$ 441,569	\$ -	\$ 441,569
2025	\$ 471,451	\$ 302,519	\$ 773,970	\$ 110,930	\$ 82,244	\$ 193,174	\$ 360,521	\$ 220,275	\$ 580,796	\$ 8,078	\$ 450	\$ 8,528	\$ 1,403,754	\$ 227,237	\$ 1,630,991	\$ 463,912	\$ -	\$ 463,912
2026	\$ 446,736	\$ 368,488	\$ 815,224	\$ 105,603	\$ 100,114	\$ 205,717	\$ 341,133	\$ 268,374	\$ 609,507	\$ 8,098	\$ 643	\$ 8,741	\$ 1,468,209	\$ 276,951	\$ 1,745,160	\$ 475,544	\$ -	\$ 475,544
2027	\$ 432,608	\$ 433,951	\$ 866,559	\$ 101,931	\$ 118,053	\$ 219,984	\$ 330,677	\$ 315,898	\$ 646,575	\$ 8,114	\$ 846	\$ 8,960	\$ 1,541,238	\$ 326,083	\$ 1,867,321	\$ 490,773	\$ -	\$ 490,773
2028	\$ 418,110	\$ 484,440	\$ 902,550	\$ 98,297	\$ 132,126	\$ 230,423	\$ 319,813	\$ 352,314	\$ 672,127	\$ 8,126	\$ 1,058	\$ 9,184	\$ 1,634,246	\$ 363,787	\$ 1,998,033	\$ 509,688	\$ -	\$ 509,688
2029	\$ 387,874	\$ 543,097	\$ 930,971	\$ 91,599	\$ 148,261	\$ 239,860	\$ 296,275	\$ 394,836	\$ 691,111	\$ 8,133	\$ 1,281	\$ 9,414	\$ 1,730,105	\$ 407,790	\$ 2,137,895	\$ 529,081	\$ -	\$ 529,081
2030	\$ 358,931	\$ 615,943	\$ 974,874	\$ 85,000	\$ 168,187	\$ 253,187	\$ 273,931	\$ 447,756	\$ 721,687	\$ 8,236	\$ 1,413	\$ 9,649	\$ 1,825,142	\$ 462,406	\$ 2,287,548	\$ 542,293	\$ -	\$ 542,293
2031	\$ 321,681	\$ 676,364	\$ 998,045	\$ 76,662	\$ 184,725	\$ 261,387	\$ 245,019	\$ 491,639	\$ 736,658	\$ 8,339	\$ 1,551	\$ 9,890	\$ 1,939,952	\$ 507,724	\$ 2,447,676	\$ 626,162	\$ -	\$ 626,162
2032	\$ 275,361	\$ 759,373	\$ 1,034,734	\$ 66,523	\$ 206,937	\$ 273,460	\$ 208,838	\$ 552,436	\$ 761,274	\$ 8,336	\$ 1,900	\$ 10,236	\$ 2,048,345	\$ 570,668	\$ 2,619,013	\$ 569,717	\$ -	\$ 569,717
2033	\$ 237,328	\$ 838,599	\$ 1,075,927	\$ 58,208	\$ 228,171	\$ 286,379	\$ 179,120	\$ 610,428	\$ 789,548	\$ 8,328	\$ 2,164	\$ 10,492	\$ 2,171,706	\$ 630,638	\$ 2,802,344	\$ 593,101	\$ -	\$ 593,101
2034	\$ 199,896	\$ 919,499	\$ 1,119,395	\$ 49,970	\$ 249,594	\$ 299,564	\$ 149,926	\$ 669,905	\$ 819,831	\$ 8,425	\$ 2,433	\$ 10,858	\$ 2,306,366	\$ 692,142	\$ 2,998,508	\$ 626,162	\$ -	\$ 626,162
2035	\$ 171,802	\$ 1,002,966	\$ 1,174,768	\$ 43,582	\$ 271,770	\$ 315,352	\$ 128,220	\$ 731,196	\$ 859,416	\$ 8,408	\$ 2,721	\$ 11,129	\$ 2,452,871	\$ 755,533	\$ 3,208,404	\$ 641,769	\$ -	\$ 641,769
2036	\$ 136,495	\$ 1,071,616	\$ 1,208,111	\$ 35,370	\$ 289,564	\$ 324,934	\$ 101,125	\$ 782,052	\$ 883,177	\$ 8,385	\$ 3,022	\$ 11,407	\$ 2,624,798	\$ 808,194	\$ 3,432,992	\$ 690,897	\$ -	\$ 690,897
2037	\$ 102,191	\$ 1,165,675	\$ 1,267,866	\$ 27,441	\$ 313,687	\$ 341,128	\$ 74,750	\$ 851,988	\$ 926,738	\$ 8,356	\$ 3,336	\$ 11,692	\$ 2,069,076	\$ 880,511	\$ 2,949,587	\$ -	\$ -	\$ -
2038	\$ 90,467	\$ 1,251,530	\$ 1,341,997	\$ 24,542	\$ 336,083	\$ 360,625	\$ 65,925	\$ 915,447	\$ 981,372	\$ 8,443	\$ 3,541	\$ 11,984	\$ 76,317	\$ 946,051	\$ 1,022,368	\$ -	\$ -	\$ -
2039	\$ 86,585	\$ 1,325,821	\$ 1,412,406	\$ 23,474	\$ 355,726	\$ 379,200	\$ 63,111	\$ 970,095	\$ 1,033,206	\$ 8,403	\$ 3,881	\$ 12,284	\$ 73,380	\$ 1,002,655	\$ 1,076,035	\$ -	\$ -	\$ -
2040	\$ 84,585	\$ 1,398,317	\$ 1,482,902	\$ 22,803	\$ 374,958	\$ 397,761	\$ 61,782	\$ 1,023,359	\$ 1,085,141	\$ 8,356	\$ 4,115	\$ 12,471	\$ 71,964	\$ 1,057,728	\$ 1,129,692	\$ -	\$ -	\$ -
2041	\$ 82,653	\$ 1,471,526	\$ 1,554,179	\$ 22,166	\$ 394,341	\$ 416,507	\$ 60,487	\$ 1,077,185	\$ 1,137,672	\$ 8,301	\$ 4,359	\$ 12,660	\$ 70,577	\$ 1,113,389	\$ 1,183,966	\$ -	\$ -	\$ -
2042	\$ 82,551	\$ 1,548,027	\$ 1,630,578	\$ 21,872	\$ 414,697	\$ 436,569	\$ 60,679	\$ 1,133,330	\$ 1,194,009	\$ 8,373	\$ 4,478	\$ 12,851	\$ 70,846	\$ 1,171,313	\$ 1,242,159	\$ -	\$ -	\$ -
2043	\$ 83,157	\$ 1,577,420	\$ 1,660,577	\$ 21,686	\$ 424,344	\$ 446,030	\$ 61,471	\$ 1,153,076	\$ 1,214,547	\$ 8,305	\$ 4,609	\$ 12,914	\$ 71,593	\$ 1,191,773	\$ 1,263,366	\$ -	\$ -	\$ -
2044	\$ 73,801	\$ 1,617,830	\$ 1,691,631	\$ 18,960	\$ 437,174	\$ 456,134	\$ 54,841	\$ 1,180,656	\$ 1,235,497	\$ 8,371	\$ 4,866	\$ 13,237	\$ 64,833	\$ 1,220,426	\$ 1,285,259	\$ -	\$ -	\$ -
2045	\$ 57,413	\$ 1,691,151	\$ 1,748,564	\$ 14,661	\$ 457,469	\$ 472,130	\$ 42,752	\$ 1,233,682	\$ 1,276,434	\$ 8,144	\$ 5,424	\$ 13,568	\$ 52,160	\$ 1,275,577	\$ 1,327,737	\$ -	\$ -	\$ -
2046	\$ 44,895	\$ 1,759,468	\$ 1,804,363	\$ 11,480	\$ 476,818	\$ 488,298	\$ 33,415	\$ 1,282,650	\$ 1,316,065	\$ 8,199	\$ 5,708	\$ 13,907	\$ 42,601	\$ 1,326,277	\$ 1,368,878	\$ -	\$ -	\$ -
2047	\$ 27,883	\$ 1,807,762	\$ 1,835,645	\$ 7,076	\$ 489,468	\$ 496,544	\$ 20,807	\$ 1,318,294	\$ 1,339,101	\$ 8,098	\$ 6,157	\$ 14,255	\$ 29,520	\$ 1,363,424	\$ 1,392,944	\$ -	\$ -	\$ -
2048	\$ 15,307	\$ 1,899,022	\$ 1,914,329	\$ 3,805	\$ 513,319	\$ 517,124	\$ 11,502	\$ 1,385,703	\$ 1,397,205	\$ 7,987	\$ 6,770	\$ 14,757	\$ 19,829	\$ 1,433,439	\$ 1,453,268	\$ -	\$ -	\$ -
2049	\$ 8,705	\$ 1,974,319	\$ 1,983,024	\$ 2,124	\$ 533,546	\$ 535,670	\$ 6,581	\$ 1,440,773	\$ 1,447,354	\$ 8,026	\$ 7,100	\$ 15,126	\$ 14,802	\$ 1,490,467	\$ 1,505,269	\$ -	\$ -	\$ -
2050	\$ 2,901	\$ 2,051,448	\$ 2,054,349	\$ 674	\$ 554,667	\$ 555,341	\$ 2,227	\$ 1,496,781	\$ 1,499,008	\$ 8,062	\$ 7,596	\$ 15,658	\$ 10,355	\$ 1,548,626	\$ 1,558,981	\$ -	\$ -	\$ -
2051	\$ 1,525	\$ 2,114,818	\$ 2,116,343	\$ 348	\$ 571,703	\$ 572,051	\$ 1,177	\$ 1,543,115	\$ 1,544,292	\$ 7,758	\$ 8,291	\$ 16,049	\$ 8,969	\$ 1,597,025	\$ 1,605,994	\$ -	\$ -	\$ -
2052	\$ 475	\$ 2,182,620	\$ 2,183,095	\$ 108	\$ 589,493	\$ 589,601	\$ 367	\$ 1,593,127	\$ 1,593,494	\$ 7,779	\$ 8,671	\$ 16,450	\$ 8,157	\$ 1,648,896	\$ 1,657,053	\$ -	\$ -	\$ -
2053	\$ 317	\$ 2,257,417	\$ 2,257,734	\$ 70	\$ 610,037	\$ 610,107	\$ 247	\$ 1,647,380	\$ 1,647,627	\$ 7,619	\$ 9,242	\$ 16,861	\$ 7,873	\$ 1,705,324	\$ 1,713,197	\$ -	\$ -	\$ -
2054	\$ -	\$ 2,332,443	\$ 2,332,443	\$ -	\$ 630,639	\$ 630,639	\$ -	\$ 1,701,804	\$ 1,701,804	\$ 7,628	\$ 9,655	\$ 17,283	\$ 7,628	\$ 1,761,769	\$ 1,769,397	\$ -	\$ -	\$ -
2055	\$ -	\$ 2,411,058	\$ 2,411,058	\$ -	\$ 652,365	\$ 652,365	\$ -	\$ 1,758,693	\$ 1,758,693	\$ 7,446	\$ 10,443	\$ 17,889	\$ 7,446	\$ 1,821,128	\$ 1,828,574	\$ -	\$ -	\$ -
2056	\$ -	\$ 2,495,309	\$ 2,495,309	\$ -	\$ 675,438	\$ 675,438	\$ -	\$ 1,819,871	\$ 1,819,871	\$ 7,441	\$ 10,895	\$ 18,336	\$ 7,441	\$ 1,884,567	\$ 1,892,008	\$ -	\$ -	\$ -
2057	\$ -	\$ 2,574,543	\$ 2,574,543	\$ -	\$ 697,376	\$ 697,376	\$ -	\$ 1,877,167	\$ 1,877,167	\$ 7,236	\$ 11,558	\$ 18,794	\$ 7,235	\$ 1,944,220	\$ 1,951,455	\$ -	\$ -	\$ -
2058	\$ -	\$ 2,662,681	\$ 2,662,681	\$ -	\$ 721,561	\$ 721,561	\$ -	\$ 1,941,120	\$ 1,941,120	\$ 7,216	\$ 12,048	\$ 19,264	\$ 7,215	\$ 2,010,553	\$ 2,017,768	\$ -	\$ -	\$ -
2059	\$ -	\$ 2,765,434	\$ 2,765,434	\$ -	\$ 749,079	\$ 749,079	\$ -	\$ 2,016,355	\$ 2,016,355	\$ 6,985	\$ 12,952	\$ 19,937	\$ 6,984	\$ 2,088,917	\$ 2,095,901	\$ -	\$ -	\$ -
2060	\$ -	\$ 2,871,503	\$ 2,871,503	\$ -	\$ 777,131	\$ 777,131	\$ -	\$ 2,094,372	\$ 2,094,372	\$ 6,949	\$ 13,486	\$ 20,435	\$ 6,949	\$ 2,169,774	\$ 2,176,723	\$ -	\$ -	\$ -
2061	\$ -	\$ 2,980,894	\$ 2,980,894	\$ -	\$ 805,723	\$ 805,723	\$ -	\$ 2,175,171	\$ 2,175,171	\$ 6,907	\$ 14,039	\$ 20,946	\$ 6,906	\$ 2,253,515	\$ 2,260,421	\$ -	\$ -	\$ -
2062	\$ -	\$ 3,099,223	\$ 3,099,223	\$ -	\$ 836,587	\$ 836,587	\$ -	\$ 2,262,636	\$ 2,262,636	\$ 6,637	\$ 14,833	\$ 21,470	\$ 6,638	\$ 2,344,359	\$ 2,350,997	\$ -	\$ -	\$ -

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 Measurement Date



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
2022	\$ 33,101,082	\$ -	\$ 33,101,082	\$ 15,192,901	45.90%	\$ 203,585	\$ 2,433,357	\$ 1,554,987	\$ 7,914	(1,810,353)
2023	\$ 34,139,424	\$ -	\$ 34,139,424	\$ 14,456,589	42.35%	\$ 134,127	\$ 1,760,971	\$ 1,808,928	\$ 7,943	\$ 869,708
2024	\$ 34,922,230	\$ 142,857	\$ 35,065,087	\$ 15,404,524	44.11%	\$ 123,373	\$ 1,795,745	\$ 1,846,777	\$ 7,968	\$ 926,174
2025	\$ 35,661,715	\$ 386,848	\$ 36,048,563	\$ 16,395,071	45.97%	\$ 114,209	\$ 1,867,666	\$ 1,874,625	\$ 8,078	\$ 986,636
2026	\$ 36,371,111	\$ 720,170	\$ 37,091,281	\$ 17,480,879	48.06%	\$ 108,725	\$ 1,943,753	\$ 1,878,820	\$ 8,098	\$ 1,053,747
2027	\$ 37,092,554	\$ 1,137,536	\$ 38,230,090	\$ 18,700,186	50.41%	\$ 104,944	\$ 2,032,011	\$ 2,326,336	\$ 8,114	\$ 1,116,173
2028	\$ 37,381,562	\$ 1,642,579	\$ 39,024,141	\$ 19,618,864	52.48%	\$ 101,203	\$ 2,143,934	\$ 2,335,247	\$ 8,126	\$ 1,174,228
2029	\$ 37,663,368	\$ 2,223,237	\$ 39,886,605	\$ 20,694,855	54.95%	\$ 94,307	\$ 2,259,186	\$ 2,255,960	\$ 8,133	\$ 1,244,334
2030	\$ 38,011,664	\$ 2,886,400	\$ 40,898,064	\$ 22,028,590	57.95%	\$ 87,513	\$ 2,367,435	\$ 2,271,162	\$ 8,236	\$ 1,326,905
2031	\$ 38,334,526	\$ 3,649,464	\$ 41,983,990	\$ 23,531,045	61.38%	\$ 78,928	\$ 2,495,788	\$ 2,313,778	\$ 8,339	\$ 1,419,330
2032	\$ 38,593,399	\$ 4,497,311	\$ 43,090,710	\$ 25,202,973	65.30%	\$ 68,490	\$ 2,618,062	\$ 2,289,658	\$ 8,336	\$ 1,523,665
2033	\$ 38,843,538	\$ 5,458,960	\$ 44,302,498	\$ 27,115,197	69.81%	\$ 59,929	\$ 2,764,807	\$ 2,210,395	\$ 8,328	\$ 1,644,827
2034	\$ 39,149,977	\$ 6,555,764	\$ 45,705,741	\$ 29,366,037	75.01%	\$ 51,447	\$ 2,932,528	\$ 2,539,748	\$ 8,425	\$ 1,774,846
2035	\$ 39,096,035	\$ 7,710,511	\$ 46,806,546	\$ 31,576,684	80.77%	\$ 44,870	\$ 3,094,640	\$ 2,387,620	\$ 8,408	\$ 1,916,581
2036	\$ 39,165,702	\$ 9,025,434	\$ 48,191,136	\$ 34,236,747	87.42%	\$ 36,416	\$ 3,315,695	\$ 2,700,515	\$ 8,385	\$ 2,073,220
2037	\$ 38,879,978	\$ 10,367,300	\$ 49,247,278	\$ 36,953,178	95.04%	\$ 28,252	\$ 2,069,076	\$ 2,629,006	\$ 8,356	\$ 2,201,226
2038	\$ 38,614,372	\$ 11,868,185	\$ 50,482,557	\$ 38,614,370	100.00%	\$ 25,268	\$ 76,317	\$ 2,668,150	\$ 8,443	\$ 2,240,737
2039	\$ 38,280,101	\$ 13,492,593	\$ 51,772,694	\$ 38,280,098	100.00%	\$ 24,168	\$ 73,380	\$ 2,690,305	\$ 8,403	\$ 2,219,908
2040	\$ 37,898,849	\$ 15,237,798	\$ 53,136,647	\$ 37,898,846	100.00%	\$ 23,477	\$ 71,964	\$ 2,549,221	\$ 8,356	\$ 2,201,143
2041	\$ 37,637,856	\$ 17,183,907	\$ 54,821,763	\$ 37,637,854	100.00%	\$ 22,821	\$ 70,577	\$ 2,776,322	\$ 8,301	\$ 2,178,711
2042	\$ 37,125,341	\$ 19,151,287	\$ 56,276,628	\$ 37,125,340	100.00%	\$ 22,519	\$ 70,846	\$ 2,578,913	\$ 8,373	\$ 2,153,793
2043	\$ 36,785,212	\$ 21,376,464	\$ 58,161,676	\$ 36,785,212	100.00%	\$ 22,327	\$ 71,593	\$ 2,433,263	\$ 8,305	\$ 2,137,709
2044	\$ 36,575,274	\$ 23,798,099	\$ 60,373,373	\$ 36,575,273	100.00%	\$ 19,521	\$ 64,833	\$ 2,397,960	\$ 8,371	\$ 2,125,872
2045	\$ 36,379,169	\$ 26,350,048	\$ 62,729,217	\$ 36,379,168	100.00%	\$ 15,094	\$ 52,160	\$ 2,357,211	\$ 8,144	\$ 2,114,811
2046	\$ 36,195,880	\$ 29,077,201	\$ 65,273,081	\$ 36,195,878	100.00%	\$ 11,819	\$ 42,601	\$ 2,326,354	\$ 8,199	\$ 2,104,345
2047	\$ 36,020,093	\$ 31,681,488	\$ 67,701,581	\$ 36,020,090	100.00%	\$ 7,285	\$ 29,520	\$ 2,284,561	\$ 8,098	\$ 2,094,516
2048	\$ 35,858,755	\$ 34,476,449	\$ 70,335,204	\$ 35,858,752	100.00%	\$ 3,917	\$ 19,829	\$ 2,238,292	\$ 7,987	\$ 2,085,820
2049	\$ 35,722,043	\$ 37,165,358	\$ 72,887,401	\$ 35,722,040	100.00%	\$ 2,187	\$ 14,802	\$ 2,375,804	\$ 8,026	\$ 2,073,351
2050	\$ 35,428,553	\$ 39,889,754	\$ 75,318,307	\$ 35,428,550	100.00%	\$ 694	\$ 10,355	\$ 2,261,231	\$ 8,062	\$ 2,058,952
2051	\$ 35,229,261	\$ 42,816,589	\$ 78,045,850	\$ 35,229,258	100.00%	\$ 358	\$ 8,969	\$ 2,229,796	\$ 7,758	\$ 2,047,882
2052	\$ 35,048,918	\$ 45,858,056	\$ 80,906,974	\$ 35,048,912	100.00%	\$ 111	\$ 8,157	\$ 2,285,517	\$ 7,779	\$ 2,035,382
2053	\$ 34,799,273	\$ 48,398,743	\$ 83,198,016	\$ 34,799,267	100.00%	\$ 72	\$ 7,873	\$ 2,078,997	\$ 7,619	\$ 2,026,504
2054	\$ 34,747,107	\$ 51,332,942	\$ 86,080,049	\$ 34,747,100	100.00%	\$ -	\$ 7,628	\$ 2,096,362	\$ 7,628	\$ 2,022,851
2055	\$ 34,673,597	\$ 54,271,645	\$ 88,945,242	\$ 34,673,589	100.00%	\$ -	\$ 7,446	\$ 1,974,376	\$ 7,446	\$ 2,022,047
2056	\$ 34,721,268	\$ 57,308,977	\$ 92,030,245	\$ 34,721,260	100.00%	\$ -	\$ 7,441	\$ 1,912,628	\$ 7,441	\$ 2,026,733
2057	\$ 34,835,373	\$ 60,087,685	\$ 94,923,058	\$ 34,835,365	100.00%	\$ -	\$ 7,235	\$ 1,853,145	\$ 7,236	\$ 2,035,337
2058	\$ 35,017,566	\$ 62,999,337	\$ 98,016,903	\$ 35,017,556	100.00%	\$ -	\$ 7,215	\$ 1,784,563	\$ 7,216	\$ 2,048,296
2059	\$ 35,281,300	\$ 65,971,557	\$ 101,252,857	\$ 35,281,288	100.00%	\$ -	\$ 6,984	\$ 1,724,488	\$ 6,985	\$ 2,065,896
2060	\$ 35,622,709	\$ 68,985,408	\$ 104,608,117	\$ 35,622,695	100.00%	\$ -	\$ 6,949	\$ 1,659,469	\$ 6,949	\$ 2,088,303
2061	\$ 36,051,544	\$ 72,039,126	\$ 108,090,670	\$ 36,051,529	100.00%	\$ -	\$ 6,906	\$ 1,597,029	\$ 6,907	\$ 2,115,879
2062	\$ 36,570,395	\$ 75,162,547	\$ 111,732,942	\$ 36,570,379	100.00%	\$ -	\$ 6,638	\$ 1,534,794	\$ 6,637	\$ 2,148,850

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2022 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
2022	\$ 1,554,987	\$ -	\$ 1,510,337	\$ -	\$ 1,510,337
2023	\$ 1,808,928	\$ -	\$ 1,657,534	\$ -	\$ 1,657,534
2024	\$ 1,846,777	\$ -	\$ 1,596,430	\$ -	\$ 1,596,430
2025	\$ 1,874,625	\$ -	\$ 1,528,776	\$ -	\$ 1,528,776
2026	\$ 1,878,820	\$ -	\$ 1,445,469	\$ -	\$ 1,445,469
2027	\$ 2,326,336	\$ -	\$ 1,688,458	\$ -	\$ 1,688,458
2028	\$ 2,335,247	\$ -	\$ 1,598,986	\$ -	\$ 1,598,986
2029	\$ 2,255,960	\$ -	\$ 1,457,261	\$ -	\$ 1,457,261
2030	\$ 2,271,162	\$ -	\$ 1,384,039	\$ -	\$ 1,384,039
2031	\$ 2,313,778	\$ -	\$ 1,330,197	\$ -	\$ 1,330,197
2032	\$ 2,289,658	\$ -	\$ 1,241,821	\$ -	\$ 1,241,821
2033	\$ 2,210,395	\$ -	\$ 1,130,974	\$ -	\$ 1,130,974
2034	\$ 2,539,748	\$ -	\$ 1,225,935	\$ -	\$ 1,225,935
2035	\$ 2,387,620	\$ -	\$ 1,087,267	\$ -	\$ 1,087,267
2036	\$ 2,700,515	\$ -	\$ 1,160,143	\$ -	\$ 1,160,143
2037	\$ 2,629,006	\$ -	\$ 1,065,493	\$ -	\$ 1,065,493
2038	\$ 2,668,150	\$ -	\$ 1,020,149	\$ -	\$ 1,020,149
2039	\$ 2,690,305	\$ -	\$ 970,396	\$ -	\$ 970,396
2040	\$ 2,549,221	\$ -	\$ 867,459	\$ -	\$ 867,459
2041	\$ 2,776,322	\$ -	\$ 891,262	\$ -	\$ 891,262
2042	\$ 2,578,913	\$ -	\$ 781,028	\$ -	\$ 781,028
2043	\$ 2,433,263	\$ -	\$ 695,205	\$ -	\$ 695,205
2044	\$ 2,397,960	\$ -	\$ 646,338	\$ -	\$ 646,338
2045	\$ 2,357,211	\$ -	\$ 599,392	\$ -	\$ 599,392
2046	\$ 2,326,354	\$ -	\$ 558,062	\$ -	\$ 558,062
2047	\$ 2,284,561	\$ -	\$ 517,015	\$ -	\$ 517,015
2048	\$ 2,238,292	\$ -	\$ 477,872	\$ -	\$ 477,872
2049	\$ 2,375,804	\$ -	\$ 478,519	\$ -	\$ 478,519
2050	\$ 2,261,231	\$ -	\$ 429,663	\$ -	\$ 429,663
2051	\$ 2,229,796	\$ -	\$ 399,707	\$ -	\$ 399,707
2052	\$ 2,285,517	\$ -	\$ 386,505	\$ -	\$ 386,505
2053	\$ 2,078,997	\$ -	\$ 331,680	\$ -	\$ 331,680
2054	\$ 2,096,362	\$ -	\$ 315,519	\$ -	\$ 315,519
2055	\$ 1,974,376	\$ -	\$ 280,339	\$ -	\$ 280,339
2056	\$ 1,912,628	\$ -	\$ 256,199	\$ -	\$ 256,199
2057	\$ 1,853,145	\$ -	\$ 234,181	\$ -	\$ 234,181
2058	\$ 1,784,563	\$ -	\$ 212,749	\$ -	\$ 212,749
2059	\$ 1,724,488	\$ -	\$ 193,950	\$ -	\$ 193,950
2060	\$ 1,659,469	\$ -	\$ 176,073	\$ -	\$ 176,073
2061	\$ 1,597,029	\$ -	\$ 159,857	\$ -	\$ 159,857
2062	\$ 1,534,794	\$ -	\$ 144,931	\$ -	\$ 144,931