



**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, 2021

Bolton

Submitted by:

James Ritchie, ASA, EA, FCA, MAAA
President of Bolton Retirement
443.573.3924
jritchie@boltonusa.com

Jordan McClane, FSA, EA, FCA, MAAA
Actuary
667.218.6935
jmcclane@boltonusa.com

November 12, 2021

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

Lieutenant Gino Gallo
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, 2021

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 2021. The GASB 67 information has been provided as of June 30, 2021 (the GASB 68 measurement date for FY 2021).

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, 2021 (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, 2020 actuarial valuation rolled forward to June 30, 2021. The methods, assumptions, and participant data used are detailed in the July 1, 2020 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, 2021 is contained in the July 1, 2019 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 5.50%. The plan's expected gross rate of investment return of 5.50% has been blended with the 1.92% 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, 2021. 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, 2021 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, 2020 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, 2021 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2021, were as follows:

Total pension liability	\$ 34,592,764
Plan fiduciary net position	(15,192,901)
Employer's net pension liability	<u>\$ 19,399,863</u>
Plan fiduciary net position as a percentage of the total pension liability	43.92%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2020 rolled forward to June 30, 2021 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)	5.00%
Single discount rate (EOY)	5.50%
Investment rate of return (BOY)	5.00%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	5.50%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	2.45%
Long-term municipal bond rate (EOY)	1.92%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019
Year Fund is projected to be fully funded	2039
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, 2020 actuarial valuation report.

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

	1% Decrease 4.50%	Current Discount Rate 5.50%	1% Increase 6.50%
Employer's net pension liability	\$ 24,228,294	\$ 19,399,863	\$ 15,469,640

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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 6/30/20	\$ 38,062,631	\$ 11,294,578	\$ 26,768,053
Changes for the year:			
Service cost	944,371		944,371
Interest	1,868,340		1,868,340
Changes of benefit terms	-		-
Differences between expected and actual experience	(198,743)		(198,743)
Changes of assumptions	(4,692,144)		(4,692,144)
Contributions - employer (including Premium Tax Allocation)		2,399,993	(2,399,993)
Contributions - member		185,487	(185,487)
Net investment income		2,712,034	(2,712,034)
Benefit payments, including refunds of member contributions	(1,391,691)	(1,391,691)	-
Administrative expense		(7,500)	7,500
Other		-	-
Net Changes	<u>(3,469,867)</u>	<u>3,898,323</u>	<u>(7,368,190)</u>
Balances at 6/30/21	<u>\$ 34,592,764</u>	<u>\$ 15,192,901</u>	<u>\$ 19,399,863</u>
Return on Investments		22.8%	

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2021

Note	Description	Amount
A	Service cost	\$ 944,371
B	Interest on the total pension liability	1,868,340
A	Changes of benefit terms	-
C	Differences between expected and actual experience	164,380
C	Changes of assumptions	(1,564,048)
A	Employee contributions	(185,487)
D	Projected earnings on pension plan investments	(594,386)
C	Differences between expected and actual earnings on plan investments	(459,648)
A	Pension plan administrative expense	7,500
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 181,022

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	\$ 38,062,631	100%	5.00%	\$ 1,903,132
Service cost (End of Year)	944,371	0%	5.00%	-
Benefit payments, including refunds of employee contributions	(1,391,691)	50%	5.00%	(34,792)
Total interest on the total pension liability				\$ 1,868,340

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	\$ 11,294,578	100%	5.00%	\$ 564,729
Employer contributions	2,399,993	50%	5.00%	60,000
Employee contributions	185,487	50%	5.00%	4,637
Benefit payments, including refunds of employee contributions	(1,391,691)	50%	5.00%	(34,792)
Administrative expense and other	(7,500)	50%	5.00%	(188)
Total Projected Earnings				\$ 594,386

City of Clarksburg, West Virginia Firemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 Measurement Date



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

At June 30, 2021, 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	\$ 718,555	\$ 132,495
Changes of assumptions	-	3,128,096
Net difference between projected and actual earnings on pension plan investments	-	1,523,173
Total	\$ 718,555	\$ 4,783,764

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:	
2022	\$ (1,584,948)
2023	(1,712,101)
2024	(344,632)
2025	(423,528)
2026	-
Thereafter	-

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 Measurement Date



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

Total pension liability	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Service cost	\$ 944,371	\$ 948,245	\$ 906,710	\$ 911,837	\$ 1,041,846	\$ 739,794	\$ 735,159	\$ 729,815	\$ -	\$ -
Interest	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	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(198,743)	1,107,034	660,159	(1,021,000)	(1,006,489)	(511,633)	(837,150)	-	-	-
Changes of assumptions	(4,692,144)	-	-	-	(2,433,972)	4,020,701	-	-	-	-
Benefit payments, including refunds of member contributions	(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	(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	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)	\$ 34,592,764	\$ 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	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Contributions - employer (including Premium Tax Allocation)	\$ 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	185,487	176,172	167,038	155,596	148,321	145,720	140,550	135,019	-	-
Net investment income	2,712,034	133,379	517,666	561,109	586,180	315,511	185,060	465,521	-	-
Benefit payments, including refunds of member contributions	(1,391,691)	(1,259,528)	(1,241,719)	(1,199,305)	(1,223,009)	(1,239,292)	(1,250,939)	(1,303,181)	-	-
Administrative expense	(7,500)	(7,500)	-	(7,500)	(7,500)	(6,000)	(6,000)	(6,000)	-	-
Other	-	-	(7,500)	-	-	-	-	-	-	-
Net change in plan fiduciary net position	\$ 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	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)	\$ 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)	\$ 19,399,863	\$ 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	43.92%	29.67%	28.02%	25.29%	20.88%	15.99%	16.46%	15.36%	0.00%	0.00%
Covered payroll	\$ 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	N/A
Employer's net pension liability as a percentage of covered payroll	943.31%	1296.53%	1302.43%	1311.00%	1370.98%	1588.79%	1409.56%	1433.15%	0.00%	0.00%
Expected average remaining service years of all participants	3.00	4.00	4.00	3.78	3.96	4.01	3.85	-	-	-

Notes to Schedule:

Benefit changes: There were no changes for FY2021.

Changes of assumptions: The discount rate changed from 5.00% to 5.50%. Changes were made to salary scale assumptions, pay spiking assumptions, inflation, cost-of-living increases, mortality rates, retirement rates, termination rates, disability rates, marital status, and non-spouse beneficiary loads.

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Actuarially determined contribution	\$ 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	1,863,796	1,861,120	1,581,814	1,592,742	1,345,298	936,850	867,454	803,198	743,702	-
State provided	536,197	437,224	452,369	436,840	445,631	424,421	421,288	407,276	473,392	-
Contribution deficiency (excess)	\$ 53,340	\$ 42,628	\$ 293,626	\$ (3,176)	\$ 240,080	\$ 762,953	\$ 408,667	\$ 466,392	\$ 386,885	\$ -
Covered payroll	\$ 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	N/A
Contributions as a percentage of covered employee payroll	116.70%	111.32%	103.62%	106.15%	93.32%	72.86%	70.55%	66.77%	71.09%	N/A

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. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	30.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	5.00%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014

Actuarial Information to Include in the Financial Statements
for the June 30, 2021 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)	2017	2018	2019	2020	2021	2022	2023	2024	2025
2017	\$ (316,000)	5	\$ (63,200)	(63,200)	(63,200)	(63,200)	(63,200)				
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)
Net increase (decrease) in pension expense							\$ (459,648)	\$ (396,450)	\$ (358,563)	\$ (344,632)	\$ (423,528)

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, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ 316,000	\$ 316,000	\$ -	\$ -
2018	-	189,422	151,536	-	37,886
2019	-	69,664	41,799	-	27,865
2020	394,494	-	157,798	236,696	-
2021	-	2,117,648	423,530	-	1,694,118
				\$ 236,696	\$ 1,759,869



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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	-	-																	-
2012	-	-																	-
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)				-
Net increase (decrease) in pension expense													\$ 164,380	\$ 375,550	\$ 210,510	\$ -	\$ -	\$ -	\$ -

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, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2012	-	-	-	-	-
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	-	495,120	165,039	-
2020	1,107,034	-	553,518	553,516	-
2021	-	198,743	66,248	-	132,495
				\$ 718,555	\$ 132,495



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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	\$ -	-																	-
2012	-	-																	
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)				
Net increase (decrease) in pension expense													\$ (1,564,048)	\$ (1,564,048)	\$ (1,564,048)	\$ -	\$ -	\$ -	\$ -

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, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	-	-	-	-
2016	4,020,701	-	4,020,701	-	-
2017	-	2,433,972	2,433,972	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
2020	-	-	-	-	-
2021	-	4,692,144	1,564,048	-	3,128,096
				\$ -	\$ 3,128,096

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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
2021	\$ 763,339	\$ -	\$ 763,339	\$ 154,100	\$ -	\$ 154,100	\$ 609,239	\$ -	\$ 609,239	\$ 7,688	\$ -	\$ 7,688	\$ 1,244,276	\$ -	\$ 1,244,276	\$ 494,586	\$ -	\$ 494,586
2022	\$ 675,031	\$ 147,405	\$ 822,436	\$ 137,700	\$ 36,653	\$ 174,353	\$ 537,331	\$ 110,752	\$ 648,083	\$ 7,631	\$ 249	\$ 7,880	\$ 1,217,369	\$ 114,006	\$ 1,331,375	\$ 474,095	\$ -	\$ 474,095
2023	\$ 628,598	\$ 247,996	\$ 876,594	\$ 128,076	\$ 61,641	\$ 189,717	\$ 500,522	\$ 186,355	\$ 686,877	\$ 7,737	\$ 502	\$ 8,239	\$ 1,232,658	\$ 191,913	\$ 1,424,571	\$ 477,880	\$ -	\$ 477,880
2024	\$ 573,543	\$ 336,426	\$ 909,969	\$ 117,495	\$ 83,357	\$ 200,852	\$ 456,048	\$ 253,069	\$ 709,117	\$ 7,756	\$ 772	\$ 8,528	\$ 1,263,584	\$ 260,707	\$ 1,524,291	\$ 498,976	\$ -	\$ 498,976
2025	\$ 529,499	\$ 424,839	\$ 954,338	\$ 108,669	\$ 104,928	\$ 213,597	\$ 420,830	\$ 319,911	\$ 740,741	\$ 7,771	\$ 1,055	\$ 8,826	\$ 1,301,345	\$ 329,646	\$ 1,630,991	\$ 511,518	\$ -	\$ 511,518
2026	\$ 493,027	\$ 510,158	\$ 1,003,185	\$ 101,266	\$ 125,611	\$ 226,877	\$ 391,761	\$ 384,547	\$ 776,308	\$ 7,874	\$ 1,260	\$ 9,134	\$ 1,348,919	\$ 396,241	\$ 1,745,160	\$ 524,373	\$ -	\$ 524,373
2027	\$ 468,161	\$ 589,676	\$ 1,057,837	\$ 95,878	\$ 144,942	\$ 240,820	\$ 372,283	\$ 444,734	\$ 817,017	\$ 7,883	\$ 1,479	\$ 9,362	\$ 1,409,042	\$ 458,279	\$ 1,867,321	\$ 538,603	\$ -	\$ 538,603
2028	\$ 452,621	\$ 660,563	\$ 1,113,184	\$ 92,240	\$ 162,445	\$ 254,685	\$ 360,381	\$ 498,118	\$ 858,499	\$ 7,888	\$ 1,708	\$ 9,596	\$ 1,484,692	\$ 513,341	\$ 1,998,033	\$ 555,625	\$ -	\$ 555,625
2029	\$ 425,136	\$ 726,937	\$ 1,152,073	\$ 86,606	\$ 178,734	\$ 265,340	\$ 338,530	\$ 548,203	\$ 886,733	\$ 7,987	\$ 1,849	\$ 9,836	\$ 1,572,969	\$ 564,926	\$ 2,137,895	\$ 571,770	\$ -	\$ 571,770
2030	\$ 388,296	\$ 808,500	\$ 1,196,796	\$ 79,701	\$ 198,574	\$ 278,275	\$ 308,595	\$ 609,926	\$ 918,521	\$ 7,985	\$ 2,097	\$ 10,082	\$ 1,658,977	\$ 628,571	\$ 2,287,548	\$ 590,015	\$ -	\$ 590,015
2031	\$ 357,190	\$ 889,914	\$ 1,247,104	\$ 73,500	\$ 218,547	\$ 292,047	\$ 283,690	\$ 671,367	\$ 955,057	\$ 7,977	\$ 2,357	\$ 10,334	\$ 1,755,737	\$ 691,939	\$ 2,447,676	\$ 604,806	\$ -	\$ 604,806
2032	\$ 313,384	\$ 973,224	\$ 1,286,608	\$ 65,195	\$ 238,867	\$ 304,062	\$ 248,189	\$ 734,357	\$ 982,546	\$ 8,070	\$ 2,623	\$ 10,693	\$ 1,862,108	\$ 756,905	\$ 2,619,013	\$ 619,965	\$ -	\$ 619,965
2033	\$ 274,526	\$ 1,068,471	\$ 1,342,997	\$ 57,411	\$ 261,994	\$ 319,405	\$ 217,115	\$ 806,477	\$ 1,023,592	\$ 8,163	\$ 2,797	\$ 10,960	\$ 1,971,189	\$ 831,155	\$ 2,802,344	\$ 637,177	\$ -	\$ 637,177
2034	\$ 233,085	\$ 1,161,904	\$ 1,394,989	\$ 49,335	\$ 284,411	\$ 333,746	\$ 183,750	\$ 877,493	\$ 1,061,243	\$ 8,144	\$ 3,196	\$ 11,340	\$ 2,094,011	\$ 904,497	\$ 2,998,508	\$ 657,584	\$ -	\$ 657,584
2035	\$ 199,723	\$ 1,261,429	\$ 1,461,152	\$ 42,532	\$ 308,284	\$ 350,816	\$ 157,191	\$ 953,145	\$ 1,110,336	\$ 8,119	\$ 3,505	\$ 11,624	\$ 2,225,893	\$ 982,511	\$ 3,208,404	\$ 676,713	\$ -	\$ 676,713
2036	\$ 155,859	\$ 1,347,285	\$ 1,503,144	\$ 33,682	\$ 328,323	\$ 362,005	\$ 122,177	\$ 1,018,962	\$ 1,141,139	\$ 8,205	\$ 3,710	\$ 11,915	\$ 2,382,674	\$ 1,050,318	\$ 3,432,992	\$ 715,298	\$ -	\$ 715,298
2037	\$ 120,327	\$ 1,457,462	\$ 1,577,789	\$ 26,309	\$ 354,111	\$ 380,420	\$ 94,018	\$ 1,103,351	\$ 1,197,369	\$ 8,170	\$ 4,157	\$ 12,327	\$ 2,535,857	\$ 1,137,444	\$ 3,673,301	\$ 740,962	\$ -	\$ 740,962
2038	\$ 96,709	\$ 1,558,915	\$ 1,655,624	\$ 21,565	\$ 377,737	\$ 399,302	\$ 75,144	\$ 1,181,178	\$ 1,256,322	\$ 8,128	\$ 4,507	\$ 12,635	\$ 2,712,699	\$ 1,217,733	\$ 3,930,432	\$ 759,484	\$ -	\$ 759,484
2039	\$ 84,793	\$ 1,656,988	\$ 1,741,781	\$ 19,172	\$ 400,857	\$ 420,029	\$ 65,621	\$ 1,256,131	\$ 1,321,752	\$ 8,079	\$ 4,752	\$ 12,831	\$ 2,910,598	\$ 1,294,964	\$ 4,205,562	\$ 308,392	\$ -	\$ 308,392
2040	\$ 77,493	\$ 1,751,099	\$ 1,828,592	\$ 17,690	\$ 423,134	\$ 440,824	\$ 59,803	\$ 1,327,965	\$ 1,387,768	\$ 8,152	\$ 4,877	\$ 13,029	\$ 69,578	\$ 1,368,872	\$ 1,438,450	\$ -	\$ -	\$ -
2041	\$ 72,362	\$ 1,845,327	\$ 1,917,689	\$ 16,603	\$ 445,443	\$ 462,046	\$ 55,759	\$ 1,399,884	\$ 1,455,643	\$ 8,091	\$ 5,138	\$ 13,229	\$ 65,362	\$ 1,443,004	\$ 1,508,366	\$ -	\$ -	\$ -
2042	\$ 68,000	\$ 1,916,520	\$ 1,984,520	\$ 15,716	\$ 462,869	\$ 478,585	\$ 52,284	\$ 1,453,651	\$ 1,505,935	\$ 8,157	\$ 5,274	\$ 13,431	\$ 61,860	\$ 1,498,365	\$ 1,560,225	\$ -	\$ -	\$ -
2043	\$ 64,785	\$ 1,989,377	\$ 2,054,162	\$ 15,014	\$ 481,418	\$ 496,432	\$ 49,771	\$ 1,507,959	\$ 1,557,730	\$ 7,943	\$ 5,824	\$ 13,767	\$ 59,064	\$ 1,554,697	\$ 1,613,761	\$ -	\$ -	\$ -
2044	\$ 55,709	\$ 2,017,135	\$ 2,072,844	\$ 12,896	\$ 489,963	\$ 502,859	\$ 42,813	\$ 1,527,172	\$ 1,569,985	\$ 7,999	\$ 6,112	\$ 14,111	\$ 51,974	\$ 1,574,719	\$ 1,626,693	\$ -	\$ -	\$ -
2045	\$ 45,278	\$ 2,111,144	\$ 2,156,422	\$ 10,417	\$ 513,558	\$ 523,975	\$ 34,861	\$ 1,597,586	\$ 1,632,447	\$ 8,053	\$ 6,411	\$ 14,464	\$ 43,860	\$ 1,647,343	\$ 1,691,203	\$ -	\$ -	\$ -
2046	\$ 36,651	\$ 2,176,841	\$ 2,213,492	\$ 8,493	\$ 530,261	\$ 538,754	\$ 28,158	\$ 1,646,580	\$ 1,674,738	\$ 7,804	\$ 7,164	\$ 14,968	\$ 36,726	\$ 1,698,419	\$ 1,735,145	\$ -	\$ -	\$ -
2047	\$ 24,548	\$ 2,250,856	\$ 2,275,404	\$ 5,607	\$ 548,311	\$ 553,918	\$ 18,941	\$ 1,702,545	\$ 1,721,486	\$ 7,845	\$ 7,497	\$ 15,342	\$ 27,301	\$ 1,756,235	\$ 1,783,536	\$ -	\$ -	\$ -
2048	\$ 14,527	\$ 2,343,476	\$ 2,358,003	\$ 3,179	\$ 570,690	\$ 573,869	\$ 11,348	\$ 1,772,786	\$ 1,784,134	\$ 7,883	\$ 7,992	\$ 15,875	\$ 19,539	\$ 1,828,877	\$ 1,848,416	\$ -	\$ -	\$ -
2049	\$ 10,121	\$ 2,436,864	\$ 2,446,985	\$ 2,136	\$ 593,657	\$ 595,793	\$ 7,985	\$ 1,843,207	\$ 1,851,192	\$ 7,757	\$ 8,515	\$ 16,272	\$ 15,958	\$ 1,901,732	\$ 1,917,690	\$ -	\$ -	\$ -
2050	\$ 7,455	\$ 2,520,979	\$ 2,528,434	\$ 1,516	\$ 613,979	\$ 615,495	\$ 5,939	\$ 1,907,000	\$ 1,912,939	\$ 7,620	\$ 9,059	\$ 16,679	\$ 13,719	\$ 1,967,800	\$ 1,981,519	\$ -	\$ -	\$ -
2051	\$ 5,733	\$ 2,610,672	\$ 2,616,405	\$ 1,127	\$ 635,328	\$ 636,455	\$ 4,606	\$ 1,975,344	\$ 1,979,950	\$ 7,641	\$ 9,616	\$ 17,257	\$ 12,372	\$ 2,038,555	\$ 2,050,927	\$ -	\$ -	\$ -
2052	\$ 4,434	\$ 2,696,878	\$ 2,701,312	\$ 843	\$ 656,220	\$ 657,063	\$ 3,591	\$ 2,040,658	\$ 2,044,249	\$ 7,484	\$ 10,204	\$ 17,688	\$ 11,173	\$ 2,106,229	\$ 2,117,402	\$ -	\$ -	\$ -
2053	\$ 3,439	\$ 2,790,604	\$ 2,794,043	\$ 632	\$ 678,995	\$ 679,627	\$ 2,807	\$ 2,111,609	\$ 2,114,416	\$ 7,314	\$ 10,816	\$ 18,130	\$ 10,197	\$ 2,179,717	\$ 2,189,914	\$ -	\$ -	\$ -
2054	\$ 1,913	\$ 2,883,274	\$ 2,885,187	\$ 349	\$ 701,512	\$ 701,861	\$ 1,564	\$ 2,181,762	\$ 2,183,326	\$ 7,314	\$ 11,443	\$ 18,757	\$ 8,921	\$ 2,252,400	\$ 2,261,321	\$ -	\$ -	\$ -
2055	\$ 1,482	\$ 2,978,414	\$ 2,979,896	\$ 262	\$ 724,898	\$ 725,160	\$ 1,220	\$ 2,253,516	\$ 2,254,736	\$ 7,309	\$ 11,917	\$ 19,226	\$ 8,562	\$ 2,326,575	\$ 2,335,137	\$ -	\$ -	\$ -
2056	\$ 778	\$ 3,079,985	\$ 3,080,763	\$ 138	\$ 749,749	\$ 749,887	\$ 640	\$ 2,330,236	\$ 2,330,876	\$ 7,108	\$ 12,599	\$ 19,707	\$ 7,765	\$ 2,406,059	\$ 2,413,824	\$ -	\$ -	\$ -
2057	\$ -	\$ 3,182,780	\$ 3,182,780	\$ -	\$ 774,953	\$ 774,953	\$ -	\$ 2,407,827	\$ 2,407,827	\$ 7,089	\$ 13,298	\$ 20,387	\$ 7,089	\$ 2,486,454	\$ 2,493,543	\$ -	\$ -	\$ -
2058	\$ -	\$ 3,296,165	\$ 3,296,165	\$ -	\$ 802,701	\$ 802,701	\$ -	\$ 2,493,464	\$ 2,493,464	\$ 6,863	\$ 14,034	\$ 20,897	\$ 6,864	\$ 2,575,150	\$ 2,582,014	\$ -	\$ -	\$ -
2059	\$ -	\$ 3,406,983	\$ 3,406,983	\$ -	\$ 829,822	\$ 829,822	\$ -	\$ 2,577,161	\$ 2,577,161	\$ 6,828	\$ 14,591	\$ 21,419	\$ 6,828	\$ 2,661,675	\$ 2,668,503	\$ -	\$ -	\$ -
2060	\$ -	\$ 3,536,417	\$ 3,536,417	\$ -	\$ 860,979	\$ 860,979	\$ -	\$ 2,675,438	\$ 2,675,438	\$ 6,575	\$ 15,581	\$ 22,156	\$ 6,575	\$ 2,763,609	\$ 2,770,184	\$ -	\$ -	\$ -
2061	\$ -	\$ 3,671,581	\$ 3,671,581	\$ -	\$ 893,212	\$ 893,212	\$ -	\$ 2,778,369	\$ 2,778,369	\$ 6,522	\$ 16,188	\$ 22,710	\$ 6,521	\$ 2,869,940	\$ 2,876,461	\$ -	\$ -	\$ -

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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
2021	\$ 33,381,425	\$ -	\$ 33,381,425	\$ 11,294,578	33.83%	\$ 158,281	\$ 1,738,862	\$ 1,533,032	\$ 7,688	\$ 630,872
2022	\$ 34,448,100	\$ -	\$ 34,448,100	\$ 12,281,873	35.65%	\$ 141,436	\$ 1,691,464	\$ 1,677,762	\$ 7,631	\$ 679,505
2023	\$ 35,331,620	\$ 153,701	\$ 35,485,321	\$ 13,108,885	37.10%	\$ 131,551	\$ 1,710,538	\$ 1,761,965	\$ 7,737	\$ 722,953
2024	\$ 36,128,259	\$ 417,718	\$ 36,545,977	\$ 13,904,225	38.49%	\$ 120,683	\$ 1,762,560	\$ 1,860,687	\$ 7,756	\$ 765,134
2025	\$ 36,809,230	\$ 781,537	\$ 37,590,767	\$ 14,684,159	39.89%	\$ 111,617	\$ 1,812,863	\$ 1,941,854	\$ 7,771	\$ 806,946
2026	\$ 37,397,819	\$ 1,247,252	\$ 38,645,071	\$ 15,465,960	41.36%	\$ 104,014	\$ 1,873,292	\$ 2,003,986	\$ 7,874	\$ 849,690
2027	\$ 37,916,485	\$ 1,815,004	\$ 39,731,489	\$ 16,281,096	42.94%	\$ 98,479	\$ 1,947,645	\$ 2,042,819	\$ 7,883	\$ 895,336
2028	\$ 38,397,557	\$ 2,485,683	\$ 40,883,240	\$ 17,171,854	44.72%	\$ 94,743	\$ 2,040,317	\$ 2,061,706	\$ 7,888	\$ 946,228
2029	\$ 38,869,294	\$ 3,255,003	\$ 42,124,297	\$ 18,183,548	46.78%	\$ 88,956	\$ 2,144,739	\$ 2,111,059	\$ 7,987	\$ 1,003,206
2030	\$ 39,287,288	\$ 4,114,985	\$ 43,402,273	\$ 19,301,403	49.13%	\$ 81,863	\$ 2,248,992	\$ 2,166,367	\$ 7,985	\$ 1,065,823
2031	\$ 39,632,596	\$ 5,079,898	\$ 44,712,494	\$ 20,523,729	51.78%	\$ 75,494	\$ 2,360,543	\$ 2,210,391	\$ 7,977	\$ 1,134,711
2032	\$ 39,918,861	\$ 6,156,270	\$ 46,075,131	\$ 21,876,108	54.80%	\$ 66,964	\$ 2,482,073	\$ 2,274,826	\$ 8,070	\$ 1,210,407
2033	\$ 40,108,472	\$ 7,338,855	\$ 47,447,327	\$ 23,352,657	58.22%	\$ 58,969	\$ 2,608,366	\$ 2,330,098	\$ 8,163	\$ 1,293,325
2034	\$ 40,210,745	\$ 8,642,947	\$ 48,853,692	\$ 24,975,055	62.11%	\$ 50,674	\$ 2,751,595	\$ 2,391,706	\$ 8,144	\$ 1,384,546
2035	\$ 40,211,643	\$ 10,066,107	\$ 50,277,750	\$ 26,762,020	66.55%	\$ 43,686	\$ 2,902,606	\$ 2,431,606	\$ 8,119	\$ 1,485,655
2036	\$ 40,136,411	\$ 11,625,852	\$ 51,762,263	\$ 28,754,243	71.64%	\$ 34,596	\$ 3,097,972	\$ 2,483,905	\$ 8,205	\$ 1,598,860
2037	\$ 39,957,047	\$ 13,300,724	\$ 53,257,771	\$ 30,993,560	77.57%	\$ 27,023	\$ 3,276,819	\$ 2,525,510	\$ 8,170	\$ 1,725,542
2038	\$ 39,687,598	\$ 15,124,547	\$ 54,812,145	\$ 33,489,264	84.38%	\$ 22,150	\$ 3,472,183	\$ 2,535,646	\$ 8,128	\$ 1,867,700
2039	\$ 39,368,001	\$ 17,107,846	\$ 56,475,847	\$ 36,307,524	92.23%	\$ 19,692	\$ 3,218,990	\$ 2,523,483	\$ 8,079	\$ 2,016,099
2040	\$ 39,030,748	\$ 19,267,570	\$ 58,298,318	\$ 39,030,742	100.00%	\$ 18,170	\$ 69,578	\$ 2,501,335	\$ 8,152	\$ 2,080,984
2041	\$ 38,689,993	\$ 21,613,500	\$ 60,303,493	\$ 38,689,987	100.00%	\$ 17,053	\$ 65,362	\$ 2,472,134	\$ 8,091	\$ 2,062,892
2042	\$ 38,355,077	\$ 24,159,333	\$ 62,514,410	\$ 38,355,070	100.00%	\$ 16,142	\$ 61,860	\$ 2,440,382	\$ 8,157	\$ 2,045,212
2043	\$ 38,029,752	\$ 26,860,378	\$ 64,890,130	\$ 38,029,744	100.00%	\$ 15,421	\$ 59,064	\$ 2,404,826	\$ 7,943	\$ 2,028,194
2044	\$ 37,719,663	\$ 29,686,804	\$ 67,406,467	\$ 37,719,654	100.00%	\$ 13,246	\$ 51,974	\$ 2,383,306	\$ 7,999	\$ 2,011,470
2045	\$ 37,405,048	\$ 32,512,102	\$ 69,917,150	\$ 37,405,039	100.00%	\$ 10,700	\$ 43,860	\$ 2,357,721	\$ 8,053	\$ 1,994,569
2046	\$ 37,088,403	\$ 35,446,470	\$ 72,534,873	\$ 37,088,395	100.00%	\$ 8,723	\$ 36,726	\$ 2,327,367	\$ 7,804	\$ 1,977,737
2047	\$ 36,776,419	\$ 38,433,129	\$ 75,209,548	\$ 36,776,410	100.00%	\$ 5,759	\$ 27,301	\$ 2,306,964	\$ 7,845	\$ 1,960,794
2048	\$ 36,455,464	\$ 41,440,510	\$ 77,895,974	\$ 36,455,454	100.00%	\$ 3,265	\$ 19,539	\$ 2,276,093	\$ 7,883	\$ 1,943,700
2049	\$ 36,137,993	\$ 44,509,144	\$ 80,647,137	\$ 36,137,982	100.00%	\$ 2,194	\$ 15,958	\$ 2,232,495	\$ 7,757	\$ 1,927,299
2050	\$ 35,843,193	\$ 47,663,825	\$ 83,507,018	\$ 35,843,182	100.00%	\$ 1,557	\$ 13,719	\$ 2,183,882	\$ 7,620	\$ 1,912,330
2051	\$ 35,579,299	\$ 50,874,121	\$ 86,453,420	\$ 35,579,286	100.00%	\$ 1,158	\$ 12,372	\$ 2,131,957	\$ 7,641	\$ 1,899,176
2052	\$ 35,352,408	\$ 54,129,147	\$ 89,481,555	\$ 35,352,394	100.00%	\$ 866	\$ 11,173	\$ 2,077,780	\$ 7,484	\$ 1,888,131
2053	\$ 35,167,314	\$ 57,421,605	\$ 92,588,919	\$ 35,167,300	100.00%	\$ 649	\$ 10,197	\$ 2,021,747	\$ 7,314	\$ 1,879,443
2054	\$ 35,028,544	\$ 60,762,466	\$ 95,791,010	\$ 35,028,528	100.00%	\$ 358	\$ 8,921	\$ 1,965,282	\$ 7,314	\$ 1,873,300
2055	\$ 34,938,528	\$ 64,140,296	\$ 99,078,824	\$ 34,938,511	100.00%	\$ 269	\$ 8,562	\$ 1,906,256	\$ 7,309	\$ 1,869,939
2056	\$ 34,903,734	\$ 67,549,801	\$ 102,453,535	\$ 34,903,715	100.00%	\$ 142	\$ 7,765	\$ 1,846,795	\$ 7,108	\$ 1,869,619
2057	\$ 34,927,358	\$ 70,997,262	\$ 105,924,620	\$ 34,927,339	100.00%	\$ -	\$ 7,089	\$ 1,786,825	\$ 7,089	\$ 1,872,524
2058	\$ 35,013,058	\$ 74,480,526	\$ 109,493,584	\$ 35,013,038	100.00%	\$ -	\$ 6,864	\$ 1,725,125	\$ 6,863	\$ 1,878,911
2059	\$ 35,166,845	\$ 78,010,318	\$ 113,177,163	\$ 35,166,824	100.00%	\$ -	\$ 6,828	\$ 1,663,091	\$ 6,828	\$ 1,889,052
2060	\$ 35,392,808	\$ 81,574,061	\$ 116,966,869	\$ 35,392,785	100.00%	\$ -	\$ 6,575	\$ 1,600,740	\$ 6,575	\$ 1,903,172
2061	\$ 35,695,241	\$ 85,207,692	\$ 120,902,933	\$ 35,695,217	100.00%	\$ -	\$ 6,521	\$ 1,538,247	\$ 6,522	\$ 1,921,501

City of Clarksburg, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2021 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				
2021	\$ 1,533,032	\$ -	\$ 1,492,537	\$ -	\$ 1,492,537				
2022	\$ 1,677,762	\$ -	\$ 1,548,288	\$ -	\$ 1,548,288				
2023	\$ 1,761,965	\$ -	\$ 1,541,225	\$ -	\$ 1,541,225				
2024	\$ 1,860,687	\$ -	\$ 1,542,729	\$ -	\$ 1,542,729				
2025	\$ 1,941,854	\$ -	\$ 1,526,091	\$ -	\$ 1,526,091				
2026	\$ 2,003,986	\$ -	\$ 1,492,816	\$ -	\$ 1,492,816				
2027	\$ 2,042,819	\$ -	\$ 1,442,411	\$ -	\$ 1,442,411				
2028	\$ 2,061,706	\$ -	\$ 1,379,854	\$ -	\$ 1,379,854				
2029	\$ 2,111,059	\$ -	\$ 1,339,228	\$ -	\$ 1,339,228				
2030	\$ 2,166,367	\$ -	\$ 1,302,668	\$ -	\$ 1,302,668				
2031	\$ 2,210,391	\$ -	\$ 1,259,848	\$ -	\$ 1,259,848				
2032	\$ 2,274,826	\$ -	\$ 1,228,980	\$ -	\$ 1,228,980				
2033	\$ 2,330,098	\$ -	\$ 1,193,214	\$ -	\$ 1,193,214				
2034	\$ 2,391,706	\$ -	\$ 1,160,913	\$ -	\$ 1,160,913				
2035	\$ 2,431,606	\$ -	\$ 1,118,749	\$ -	\$ 1,118,749				
2036	\$ 2,483,905	\$ -	\$ 1,083,233	\$ -	\$ 1,083,233				
2037	\$ 2,525,510	\$ -	\$ 1,043,959	\$ -	\$ 1,043,959				
2038	\$ 2,535,646	\$ -	\$ 993,506	\$ -	\$ 993,506				
2039	\$ 2,523,483	\$ -	\$ 937,195	\$ -	\$ 937,195				
2040	\$ 2,501,335	\$ -	\$ 880,540	\$ -	\$ 880,540				
2041	\$ 2,472,134	\$ -	\$ 824,891	\$ -	\$ 824,891				
2042	\$ 2,440,382	\$ -	\$ 771,845	\$ -	\$ 771,845				
2043	\$ 2,404,826	\$ -	\$ 720,947	\$ -	\$ 720,947				
2044	\$ 2,383,306	\$ -	\$ 677,247	\$ -	\$ 677,247				
2045	\$ 2,357,721	\$ -	\$ 635,049	\$ -	\$ 635,049				
2046	\$ 2,327,367	\$ -	\$ 594,192	\$ -	\$ 594,192				
2047	\$ 2,306,964	\$ -	\$ 558,278	\$ -	\$ 558,278				
2048	\$ 2,276,093	\$ -	\$ 522,092	\$ -	\$ 522,092				
2049	\$ 2,232,495	\$ -	\$ 485,395	\$ -	\$ 485,395				
2050	\$ 2,183,882	\$ -	\$ 450,072	\$ -	\$ 450,072				
2051	\$ 2,131,957	\$ -	\$ 416,465	\$ -	\$ 416,465				
2052	\$ 2,077,780	\$ -	\$ 384,722	\$ -	\$ 384,722				
2053	\$ 2,021,747	\$ -	\$ 354,831	\$ -	\$ 354,831				
2054	\$ 1,965,282	\$ -	\$ 326,940	\$ -	\$ 326,940				
2055	\$ 1,906,256	\$ -	\$ 300,588	\$ -	\$ 300,588				
2056	\$ 1,846,795	\$ -	\$ 276,030	\$ -	\$ 276,030				
2057	\$ 1,786,825	\$ -	\$ 253,144	\$ -	\$ 253,144				
2058	\$ 1,725,125	\$ -	\$ 231,661	\$ -	\$ 231,661				
2059	\$ 1,663,091	\$ -	\$ 211,688	\$ -	\$ 211,688				
2060	\$ 1,600,740	\$ -	\$ 193,130	\$ -	\$ 193,130				
2061	\$ 1,538,247	\$ -	\$ 175,914	\$ -	\$ 175,914				