



**Municipal Pensions  
Oversight Board**

**City of St. Albans  
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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November 29, 2022

Ms. Barbara Hughes  
City Treasurer  
City of St. Albans  
P.O. Box 1488  
St. Albans, WV 25177

Lieutenant Charles Price  
Pension Board Secretary  
City of St. Albans  
Firemen's Pension and Relief Fund

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

Dear Barbara,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of St. Albans 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 a blended discount rate of 3.96%. The plan's expected gross rate of investment return of 4.25% 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.

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 St. Albans, 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	\$ 22,085,741
Plan fiduciary net position	(2,586,901)
Employer's net pension liability	<u>\$ 19,498,840</u>
Plan fiduciary net position as a percentage of the total pension liability	11.71%

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)	2.77%
Single discount rate (EOY)	3.96%
Investment rate of return (BOY)	4.00%, 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)	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	2062
Year assets are expected to be depleted for a closed plan	2031

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 2.96%	Current Discount Rate 3.96%	1% Increase 4.96%
Employer's net pension liability	\$ 23,219,605	\$ 19,498,840	\$ 16,555,568

City of St. Albans, West Virginia Firemen's Pension and Relief Fund  
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Changes in the Net Pension Liability

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>Balances at 6/30/21</b>	\$ 26,398,520	\$ 3,026,697	\$ 23,371,823
<b>Changes for the year:</b>			
Service cost	953,450		953,450
Interest	719,736		719,736
Changes of benefit terms	-		-
Differences between expected and actual experience	(618,773)		(618,773)
Changes of assumptions	(4,536,630)		(4,536,630)
Contributions - employer (including Premium Tax Allocation)		732,349	(732,349)
Contributions - member		106,035	(106,035)
Net investment income		(445,852)	445,852
Benefit payments, including refunds of member contributions	(830,562)	(830,562)	-
Administrative expense		(1,766)	1,766
Other		-	-
<b>Net Changes</b>	<u>(4,312,779)</u>	<u>(439,796)</u>	<u>(3,872,983)</u>
<b>Balances at 6/30/22</b>	<u>\$ 22,085,741</u>	<u>\$ 2,586,901</u>	<u>\$ 19,498,840</u>
Return on Investments		(14.7%)	

City of St. Albans, West Virginia Firemen's Pension and Relief Fund  
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Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2022

Note	Description	Amount
A	Service cost	\$ 953,450
B	Interest on the total pension liability	719,736
A	Changes of benefit terms	-
C	Differences between expected and actual experience	182,305
C	Changes of assumptions	(509,862)
A	Employee contributions	(106,035)
D	Projected earnings on pension plan investments	(121,190)
C	Differences between expected and actual earnings on plan investments	17,251
A	Pension plan administrative expense	1,766
A	Other changes in fiduciary net position	-
<b>Total Pension Expense</b>		<b>\$ 1,137,421</b>

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	\$ 26,398,520	100%	2.77%	\$ 731,239
Service cost (End of Year)	953,450	0%	2.77%	-
Benefit payments, including refunds of employee contributions	(830,562)	50%	2.77%	(11,503)
<b>Total interest on the total pension liability</b>				<b>\$ 719,736</b>

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	\$ 3,026,697	100%	4.00%	\$ 121,068
Employer contributions	732,349	50%	4.00%	14,647
Employee contributions	106,035	50%	4.00%	2,121
Benefit payments, including refunds of employee contributions	(830,562)	50%	4.00%	(16,611)
Administrative expense and other	(1,766)	50%	4.00%	(35)
<b>Total Projected Earnings</b>				<b>\$ 121,190</b>

City of St. Albans, West Virginia Firemen’s Pension and Relief Fund  
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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	\$ 532,584	\$ 495,018
Changes of assumptions	336,439	4,070,162
Net difference between projected and actual earnings on pension plan investments	166,956	-
<b>Total</b>	<b>\$ 1,035,979</b>	<b>\$ 4,565,180</b>

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

<b>Year ended June 30:</b>	
2023	\$ (584,740)
2024	(1,013,841)
2025	(1,012,951)
2026	(917,669)
2027	-
Thereafter	-



City of St. Albans, West Virginia Firemen's Pension and Relief Fund  
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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	\$ 953,450	\$ 842,674	\$ 672,913	\$ 669,988	\$ 611,643	\$ 711,190	\$ 395,160	\$ 367,972	\$ 433,486	\$ -
Interest	719,736	786,485	793,425	786,510	765,755	686,769	714,082	704,105	717,437	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(618,773)	725,415	389,340	306,909	(97,774)	47,249	95,553	(258,366)	-	-
Changes of assumptions	(4,536,630)	(734,764)	1,345,756	939,593	(201,141)	(2,169,156)	4,897,997	574,779	725,672	-
Benefit payments, including refunds of member contributions	(830,562)	(858,306)	(1,258,163)	(646,610)	(636,775)	(617,725)	(646,025)	(578,970)	(538,173)	-
Net change in total pension liability	(4,312,779)	761,504	1,943,271	2,056,390	441,708	(1,341,673)	5,456,767	809,520	1,338,422	-
Total pension liability - beginning	26,398,520	25,637,016	23,693,745	21,637,355	21,195,647	22,537,320	17,080,553	16,271,033	14,932,611	-
<b>Total pension liability - ending (a)</b>	<b>\$ 22,085,741</b>	<b>\$ 26,398,520</b>	<b>\$ 25,637,016</b>	<b>\$ 23,693,745</b>	<b>\$ 21,637,355</b>	<b>\$ 21,195,647</b>	<b>\$ 22,537,320</b>	<b>\$ 17,080,553</b>	<b>\$ 16,271,033</b>	<b>\$ -</b>
<b>Plan fiduciary net position</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Contributions - employer (including Premium Tax Allocation)	\$ 732,349	\$ 734,179	\$ 618,846	\$ 668,884	\$ 526,787	\$ 449,321	\$ 434,429	\$ 423,731	\$ 460,171	\$ -
Contributions - member	106,035	106,096	106,308	106,691	101,008	94,205	99,072	90,837	92,793	-
Net investment income	(445,852)	565,869	110,022	131,865	79,339	207,323	(53,069)	55,783	239,199	-
Benefit payments, including refunds of member contributions	(830,562)	(858,306)	(1,258,163)	(646,610)	(636,775)	(617,725)	(646,025)	(578,970)	(538,173)	-
Administrative expense	(1,766)	(1,059)	(6,151)	956	(750)	(750)	(6,201)	(1,579)	(2,633)	-
Other	-	-	-	(599)	1,730	-	-	-	-	-
Net change in plan fiduciary net position	\$ (439,796)	\$ 546,779	\$ (429,138)	\$ 261,187	\$ 71,339	\$ 132,374	\$ (171,794)	\$ (10,198)	\$ 251,357	\$ -
Plan fiduciary net position - beginning	3,026,697	2,479,918	2,909,056	2,647,869	2,576,530	2,444,156	2,615,950	2,626,148	2,374,791	-
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 2,586,901</b>	<b>\$ 3,026,697</b>	<b>\$ 2,479,918</b>	<b>\$ 2,909,056</b>	<b>\$ 2,647,869</b>	<b>\$ 2,576,530</b>	<b>\$ 2,444,156</b>	<b>\$ 2,615,950</b>	<b>\$ 2,626,148</b>	<b>\$ -</b>
Employer's net pension liability - ending (a)-(b)	\$ 19,498,840	\$ 23,371,823	\$ 23,157,098	\$ 20,784,689	\$ 18,989,486	\$ 18,619,117	\$ 20,093,164	\$ 14,464,603	\$ 13,644,885	\$ -
Plan fiduciary net position as a percentage of the total pension liability	11.71%	11.47%	9.67%	12.28%	12.24%	12.16%	10.84%	15.32%	16.14%	N/A
Covered payroll	\$ 1,204,195	\$ 1,121,112	\$ 968,872	\$ 954,643	\$ 914,121	\$ 912,222	\$ 818,360	\$ 827,407	\$ 1,044,493	N/A
Employer's net pension liability as a percentage of covered payroll	1619.24%	2084.70%	2390.11%	2177.22%	2077.35%	2041.07%	2455.30%	1748.18%	1306.36%	N/A
Expected average remaining service years of all participants	5.00	5.00	4.00	4.00	4.62	4.82	4.84	4.56	N/A	N/A

**Notes to Schedule:**

Benefit changes: There were no changes for FY2022.

Changes of assumptions: The discount rate changed from 2.77% to 3.96%.

City of St. Albans, West Virginia Firemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
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Schedule of Employer Contributions  
 Last 10 Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 1,624,684	\$ 1,551,680	\$ 1,488,837	\$ 1,413,151	\$ 1,243,159	\$ 1,179,277	\$ 1,076,165	\$ 767,287	\$ 812,669	\$ 743,600
Contributions in relation to the actuarially determined contribution										
Employer provided	472,666	465,316	371,125	441,061	307,391	241,363	224,816	217,308	238,863	238,516
State provided	259,683	268,863	247,721	227,823	219,396	207,958	209,613	206,423	221,308	191,580
Contribution deficiency (excess)	<u>\$ 892,335</u>	<u>\$ 817,501</u>	<u>\$ 869,991</u>	<u>\$ 744,267</u>	<u>\$ 716,372</u>	<u>\$ 729,956</u>	<u>\$ 641,736</u>	<u>\$ 343,556</u>	<u>\$ 352,498</u>	<u>\$ 313,504</u>
Covered payroll	\$ 1,204,195	\$ 1,121,112	\$ 968,872	\$ 954,643	\$ 914,121	\$ 912,222	\$ 818,360	\$ 827,407	\$ 1,044,493	\$ 913,506
Contributions as a percentage of covered employee payroll	60.82%	65.49%	63.87%	70.07%	57.63%	49.26%	53.09%	51.21%	44.06%	47.08%

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	4.00%, 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 St. Albans, West Virginia Firemen's Pension and Relief Fund  
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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	\$ 14,088	5	\$ 2,818	2,818	2,818	2,818	2,816				
2019	(23,363)	5		\$ (4,673)	(4,673)	(4,673)	(4,673)	(4,671)			
2020	(4,443)	5			\$ (889)	(889)	(889)	(889)	(887)		
2021	(467,053)	5				\$ (93,411)	(93,411)	(93,411)	(93,411)	(93,409)	
2022	567,042	5					\$ 113,408	113,408	113,408	113,408	113,410
Net increase (decrease) in pension expense							\$ 17,251	\$ 14,437	\$ 19,110	\$ 19,999	\$ 113,410

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	\$ 14,088	\$ -	\$ 14,088	\$ -	\$ -
2019	-	23,363	18,692	-	4,671
2020	-	4,443	2,667	-	1,776
2021	-	467,053	186,822	-	280,231
2022	567,042	-	113,408	453,634	-
				\$ 453,634	\$ 286,678

City of St. Albans, West Virginia Firemen's Pension and Relief Fund  
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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	(258,366)	4.555504				\$ (56,715)	(56,715)	(56,715)	(56,715)	(31,506)									
2016	95,553	4.835426				\$ 19,761	19,761	19,761	19,761	19,761	16,509								
2017	47,249	4.815653					\$ 9,812	9,812	9,812	9,812	8,001								
2018	(97,774)	4.618084					\$ (21,172)	(21,172)	(21,172)	(21,172)	(21,172)	(13,086)							
2019	306,909	4.000000						\$ 76,727	76,727	76,727	76,727	76,728							
2020	389,340	4.000000							\$ 97,335	97,335	97,335	97,335	97,335						
2021	725,415	5.000000								\$ 145,083	145,083	145,083	145,083	145,083	145,083	145,083			
2022	(618,773)	5.000000											\$ (123,755)	(123,755)	(123,755)	(123,755)	(123,753)		
Net increase (decrease) in pension expense													\$ 182,305	\$ 118,663	\$ 21,328	\$ 21,328	\$ (123,753)	\$ -	\$ -

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	-	258,366	258,366	-	-
2016	95,553	-	95,553	-	-
2017	47,249	-	47,249	-	-
2018	-	97,774	97,774	-	-
2019	306,909	-	306,909	-	-
2020	389,340	-	292,005	97,335	-
2021	725,415	-	290,166	435,249	-
2022	-	618,773	123,755	-	495,018
				\$ 532,584	\$ 495,018

City of St. Albans, West Virginia Firemen's Pension and Relief Fund  
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 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	574,779	4.565504	-	-	-	\$ 126,172	126,172	126,172	126,172	70,091	-	-	-	-	-	-	-	-	-
2016	4,897,997	4.835426	-	-	-	\$ 1,012,940	1,012,940	1,012,940	1,012,940	846,237	-	-	-	-	-	-	-	-	-
2017	(2,169,156)	4.815653	-	-	-	-	-	\$ (450,439)	(450,439)	(450,439)	(450,439)	(367,400)	-	-	-	-	-	-	-
2018	(201,141)	4.618084	-	-	-	-	-	\$ (43,555)	(43,555)	(43,555)	(43,555)	(43,555)	(26,921)	-	-	-	-	-	-
2019	939,593	4.000000	-	-	-	-	-	\$ 234,898	234,898	234,898	234,898	234,898	234,898	-	-	-	-	-	-
2020	1,345,756	4.000000	-	-	-	-	-	-	-	\$ 336,439	336,439	336,439	336,439	336,439	-	-	-	-	-
2021	(734,764)	5.000000	-	-	-	-	-	-	-	\$ (146,953)	(146,953)	(146,953)	(146,953)	(146,953)	(146,953)	(146,952)	-	-	-
2022	(4,536,630)	5.000000	-	-	-	-	-	-	-	-	-	-	\$ (907,326)	(907,326)	(907,326)	(907,326)	(907,326)	(907,326)	-
Net increase (decrease) in pension expense													\$ (509,862)	\$ (717,840)	\$ (1,054,279)	\$ (1,054,278)	\$ (907,326)	\$ -	\$ -

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	574,779	-	574,779	-	-
2016	4,897,997	-	4,897,997	-	-
2017	-	2,169,156	2,169,156	-	-
2018	-	201,141	201,141	-	-
2019	939,593	-	939,593	-	-
2020	1,345,756	-	1,009,317	336,439	-
2021	-	734,764	293,906	-	440,858
2022	-	4,536,630	907,326	-	3,629,304
				\$ 336,439	\$ 4,070,162



City of St. Albans, 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	\$ 20,500,328	\$ -	\$ 20,500,328	\$ 3,026,697	14.76%	\$ 106,035	\$ 732,349	\$ 830,562	\$ 1,766	(\$45,852)
2023	\$ 21,162,227	\$ -	\$ 21,162,227	\$ 2,586,901	12.22%	\$ 111,974	\$ 581,588	\$ 853,979	\$ 1,623	\$ 106,536
2024	\$ 21,819,500	\$ 41,163	\$ 21,860,663	\$ 2,531,397	11.60%	\$ 108,120	\$ 575,249	\$ 871,609	\$ 1,632	\$ 103,592
2025	\$ 22,469,747	\$ 125,417	\$ 22,595,164	\$ 2,445,118	10.88%	\$ 102,225	\$ 571,558	\$ 905,609	\$ 1,640	\$ 99,008
2026	\$ 23,084,028	\$ 264,684	\$ 23,348,712	\$ 2,310,660	10.01%	\$ 97,377	\$ 558,898	\$ 928,937	\$ 1,614	\$ 92,435
2027	\$ 23,677,520	\$ 466,501	\$ 24,144,021	\$ 2,128,819	8.99%	\$ 94,529	\$ 557,561	\$ 940,096	\$ 1,654	\$ 84,384
2028	\$ 24,273,436	\$ 724,499	\$ 24,997,935	\$ 1,923,542	7.92%	\$ 90,872	\$ 564,419	\$ 961,285	\$ 1,660	\$ 75,281
2029	\$ 24,858,041	\$ 1,033,575	\$ 25,891,616	\$ 1,691,169	6.80%	\$ 82,333	\$ 569,134	\$ 1,019,790	\$ 1,665	\$ 64,094
2030	\$ 25,362,118	\$ 1,392,226	\$ 26,754,344	\$ 1,385,276	5.46%	\$ 73,576	\$ 542,023	\$ 1,073,726	\$ 1,670	\$ 49,205
2031	\$ 25,783,194	\$ 1,838,554	\$ 27,621,748	\$ 974,683	3.78%	\$ 67,988	\$ 537,005	\$ 1,105,217	\$ 1,712	\$ 30,869
2032	\$ 26,158,866	\$ 2,355,329	\$ 28,514,195	\$ 503,616	1.93%	\$ 61,156	\$ 534,632	\$ 1,152,967	\$ 1,677	\$ 9,652
2033	\$ 26,463,456	\$ 2,939,306	\$ 29,402,762	\$ -	0.00%	\$ 53,456	\$ 535,518	\$ 1,202,165	\$ 1,719	\$ -
2034	\$ 26,686,622	\$ 3,593,947	\$ 30,280,569	\$ -	0.00%	\$ 47,308	\$ 537,619	\$ 1,237,654	\$ 1,721	\$ -
2035	\$ 26,846,323	\$ 4,333,899	\$ 31,180,222	\$ -	0.00%	\$ 42,433	\$ 544,741	\$ 1,264,485	\$ 1,722	\$ -
2036	\$ 26,955,856	\$ 5,150,128	\$ 32,105,984	\$ -	0.00%	\$ 38,331	\$ 567,434	\$ 1,282,323	\$ 1,722	\$ -
2037	\$ 27,026,631	\$ 6,055,169	\$ 33,081,800	\$ -	0.00%	\$ 35,881	\$ 589,007	\$ 1,289,419	\$ 1,721	\$ -
2038	\$ 27,078,660	\$ 7,049,092	\$ 34,127,752	\$ -	0.00%	\$ 33,681	\$ 611,012	\$ 1,295,458	\$ 1,764	\$ -
2039	\$ 27,112,962	\$ 8,132,592	\$ 35,245,554	\$ -	0.00%	\$ 31,300	\$ 650,261	\$ 1,300,586	\$ 1,762	\$ -
2040	\$ 27,127,448	\$ 9,306,974	\$ 36,434,422	\$ -	0.00%	\$ 30,577	\$ 677,347	\$ 1,290,009	\$ 1,759	\$ -
2041	\$ 27,150,637	\$ 10,591,378	\$ 37,742,015	\$ -	0.00%	\$ 28,677	\$ 718,309	\$ 1,291,848	\$ 1,754	\$ -
2042	\$ 27,161,858	\$ 11,969,203	\$ 39,131,061	\$ -	0.00%	\$ 25,142	\$ 763,282	\$ 1,305,125	\$ 1,798	\$ -
2043	\$ 27,138,649	\$ 13,439,166	\$ 40,577,815	\$ -	0.00%	\$ 21,944	\$ 799,370	\$ 1,313,464	\$ 1,792	\$ -
2044	\$ 27,086,079	\$ 15,018,360	\$ 42,104,439	\$ -	0.00%	\$ 18,983	\$ 867,735	\$ 1,321,942	\$ 1,784	\$ -
2045	\$ 27,004,852	\$ 16,684,521	\$ 43,689,373	\$ -	0.00%	\$ 14,438	\$ 937,662	\$ 1,344,024	\$ 1,829	\$ -
2046	\$ 26,869,417	\$ 18,427,697	\$ 45,297,114	\$ -	0.00%	\$ 11,212	\$ 1,003,640	\$ 1,351,448	\$ 1,820	\$ -
2047	\$ 26,701,217	\$ 20,257,318	\$ 46,958,535	\$ -	0.00%	\$ 9,032	\$ 1,097,392	\$ 1,351,679	\$ 1,809	\$ -
2048	\$ 26,512,515	\$ 22,164,958	\$ 48,677,473	\$ -	0.00%	\$ 7,228	\$ 1,176,841	\$ 1,345,992	\$ 1,796	\$ -
2049	\$ 26,310,733	\$ 24,155,596	\$ 50,466,329	\$ -	0.00%	\$ 5,734	\$ 1,272,817	\$ 1,339,076	\$ 1,782	\$ -
2050	\$ 26,098,626	\$ 26,216,932	\$ 52,315,558	\$ -	0.00%	\$ 3,822	\$ 1,597,594	\$ 1,334,078	\$ 1,827	\$ 5,583
2051	\$ 25,871,286	\$ 28,335,857	\$ 54,207,143	\$ 271,094	1.05%	\$ 2,356	\$ 1,713,714	\$ 1,322,449	\$ 1,748	\$ 19,762
2052	\$ 25,637,078	\$ 30,514,473	\$ 56,151,551	\$ 682,729	2.66%	\$ 1,507	\$ 1,918,889	\$ 1,304,885	\$ 1,728	\$ 41,923
2053	\$ 25,405,016	\$ 32,752,110	\$ 58,157,126	\$ 1,338,435	5.27%	\$ 1,096	\$ 2,196,512	\$ 1,282,777	\$ 1,771	\$ 76,084
2054	\$ 25,183,045	\$ 35,028,084	\$ 60,211,129	\$ 2,327,579	9.24%	\$ 686	\$ 3,410,226	\$ 1,259,812	\$ 1,748	\$ 144,121
2055	\$ 24,972,034	\$ 37,339,687	\$ 62,311,721	\$ 4,621,051	18.50%	\$ 396	\$ 3,611,990	\$ 1,235,055	\$ 1,723	\$ 246,351
2056	\$ 24,775,190	\$ 39,687,784	\$ 64,462,974	\$ 7,243,010	29.23%	\$ 297	\$ 4,041,202	\$ 1,208,033	\$ 1,766	\$ 367,375
2057	\$ 24,596,921	\$ 42,079,907	\$ 66,676,828	\$ 10,442,085	42.45%	\$ 169	\$ 4,595,582	\$ 1,180,689	\$ 1,738	\$ 515,567
2058	\$ 24,438,037	\$ 44,511,713	\$ 68,949,750	\$ 14,370,975	58.81%	\$ 127	\$ 5,001,779	\$ 1,152,108	\$ 1,707	\$ 691,688
2059	\$ 24,301,297	\$ 46,987,409	\$ 71,288,706	\$ 18,910,754	77.82%	\$ 52	\$ 5,648,653	\$ 1,123,440	\$ 1,674	\$ 898,833
2060	\$ 24,187,444	\$ 49,509,645	\$ 73,697,089	\$ 24,333,178	100.60%	\$ -	\$ 5,951,904	\$ 1,094,251	\$ 1,716	\$ 1,136,275
2061	\$ 24,098,148	\$ 52,094,284	\$ 76,192,432	\$ 30,325,389	125.84%	\$ -	\$ 6,272,237	\$ 1,064,285	\$ 1,679	\$ 1,398,311
2062	\$ 24,035,654	\$ 54,752,835	\$ 78,788,489	\$ 36,929,974	153.65%	\$ -	\$ 8,805,651	\$ 1,034,048	\$ 1,639	\$ 1,732,918

City of St. Albans, 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	\$ 830,562	\$ -	\$ 813,456	\$ -	\$ 814,596	
2023	\$ 853,979	\$ -	\$ 802,293	\$ -	\$ 805,670	
2024	\$ 871,609	\$ -	\$ 785,474	\$ -	\$ 790,992	
2025	\$ 905,609	\$ -	\$ 782,843	\$ -	\$ 790,553	
2026	\$ 928,937	\$ -	\$ 770,272	\$ -	\$ 780,040	
2027	\$ 940,096	\$ -	\$ 747,746	\$ -	\$ 759,351	
2028	\$ 961,285	\$ -	\$ 733,428	\$ -	\$ 746,901	
2029	\$ 1,019,790	\$ -	\$ 746,346	\$ -	\$ 762,187	
2030	\$ 1,073,726	\$ -	\$ 753,784	\$ -	\$ 771,941	
2031	\$ -	\$ 1,105,217	\$ -	\$ 783,334	\$ 764,326	
2032	\$ -	\$ 1,152,967	\$ -	\$ 788,097	\$ 766,987	
2033	\$ -	\$ 1,202,165	\$ -	\$ 792,483	\$ 769,264	
2034	\$ -	\$ 1,237,654	\$ -	\$ 786,843	\$ 761,817	
2035	\$ -	\$ 1,264,485	\$ -	\$ 775,293	\$ 748,695	
2036	\$ -	\$ 1,282,323	\$ -	\$ 758,251	\$ 730,346	
2037	\$ -	\$ 1,289,419	\$ -	\$ 735,313	\$ 706,424	
2038	\$ -	\$ 1,295,458	\$ -	\$ 712,467	\$ 682,708	
2039	\$ -	\$ 1,300,586	\$ -	\$ 689,833	\$ 659,312	
2040	\$ -	\$ 1,290,009	\$ -	\$ 659,873	\$ 629,049	
2041	\$ -	\$ 1,291,848	\$ -	\$ 637,298	\$ 605,959	
2042	\$ -	\$ 1,305,125	\$ -	\$ 620,935	\$ 588,876	
2043	\$ -	\$ 1,313,464	\$ -	\$ 602,664	\$ 570,073	
2044	\$ -	\$ 1,321,942	\$ -	\$ 584,969	\$ 551,905	
2045	\$ -	\$ 1,344,024	\$ -	\$ 573,575	\$ 539,758	
2046	\$ -	\$ 1,351,448	\$ -	\$ 556,219	\$ 522,073	
2047	\$ -	\$ 1,351,679	\$ -	\$ 536,517	\$ 502,280	
2048	\$ -	\$ 1,345,992	\$ -	\$ 515,247	\$ 481,122	
2049	\$ -	\$ 1,339,076	\$ -	\$ 494,358	\$ 460,424	
2050	\$ -	\$ 1,334,078	\$ -	\$ 474,985	\$ 441,239	
2051	\$ -	\$ 1,322,449	\$ -	\$ 454,089	\$ 420,738	
2052	\$ -	\$ 1,304,885	\$ -	\$ 432,113	\$ 399,342	
2053	\$ 1,282,777	\$ -	\$ 345,744	\$ -	\$ 377,628	
2054	\$ 1,259,812	\$ -	\$ 325,712	\$ -	\$ 356,746	
2055	\$ 1,235,055	\$ -	\$ 306,294	\$ -	\$ 336,418	
2056	\$ 1,208,033	\$ -	\$ 287,379	\$ -	\$ 316,528	
2057	\$ 1,180,689	\$ -	\$ 269,423	\$ -	\$ 297,583	
2058	\$ 1,152,108	\$ -	\$ 252,184	\$ -	\$ 279,323	
2059	\$ 1,123,440	\$ -	\$ 235,883	\$ -	\$ 262,001	
2060	\$ 1,094,251	\$ -	\$ 220,388	\$ -	\$ 245,477	
2061	\$ 1,064,285	\$ -	\$ 205,614	\$ -	\$ 229,663	
2062	\$ 1,034,048	\$ -	\$ 191,629	\$ -	\$ 214,642	