

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



# Submitted by:

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December 7, 2023

Ms. Molly Quentrill City Treasurer City of St. Albans 1499 MacCorkle Ave St. Albans, WV 25177 Captain Philip Bass
Pension Board Secretary
City of St. Albans
Policemen's Pension and Relief Fund

Re: City of St. Albans Policemen's Pension and Relief Fund GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2023

Dear Molly,

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

## Methodology, Reliance and Certification

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

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

The included calculations are based on the valuation discount rate of 5.50%. The plan's expected gross rate of investment return of 5.50% has been blended with the 3.86% yield corresponding to the 20-year maturity on a municipal general obligation AA bond yield curve published on Fidelity's Fixed Income Market Data webpage as of June 30, 2023. The development of the blended discount rate is included within this report. 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, 2023 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.

Ms. Molly Quentrill December 7, 2023 Page 2

### Methodology, Reliance and Certification (cont.)

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

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

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

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

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

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

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

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



Ms. Molly Quentrill December 7, 2023 Page 3

### Methodology, Reliance and Certification (cont.)

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

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

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

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

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

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2022 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,

James Ritchie, ASA, EA, FCA, MAAA

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Jordan McClane, FSA, EA, FCA, MAAA

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Actuarial Information to Include in the Financial Statements for the June 30, 2023 Measurement Date



Net Pension Liability of the Employer

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

Total pension liability	\$ 17,648,020
Plan fiduciary net position	 (8,084,182)
Employer's net pension liability	\$ 9,563,838
Plan fiduciary net position as a percentage of the total pension liability	45.81%

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

Inflation 2.50 percent

Salary increases Rates vary by years of service

Single discount rate (BOY) 5.50% Single discount rate (EOY) 5.50%

Investment rate of return (BOY) 5.50%, 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 municpal bond rate (BOY) 3.69% Long-term municpal bond rate (EOY) 3.86%

Mortality SOA PubS-2010(B) with generational projection using Scale MP-2019

Year Fund is projected to be fully funded
Year assets are expected to be depleted
N/A

for a closed plan

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

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

		Cı	urrent		
	1% Decrease 4.50%		ount Rate .50%	19	% Increase 6.50%
Employer's net pension liability	\$ 12,224,272	\$	9,563,838	\$	7,431,823

# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2023 Measurement Date



# Changes in the Net Pension Liability

		Increase (Decrease	)
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/22	\$ 17,291,926	\$ 7,661,953	\$ 9,629,973
Changes for the year:			
Service cost	435,975		435,975
Interest	926,978		926,978
Changes of benefit terms	-		-
Differences between expected and actual experience	(131,287)		(131,287)
Changes of assumptions	-		-
Contributions - employer (including Premium Tax Allocation)		656,511	(656,511)
Contributions - member		134,072	(134,072)
Net investment income		509,905	(509,905)
Benefit payments, including refunds of member contributions	(875,572)	(875,572)	-
Administrative expense		(2,687)	2,687
Other		<u> </u>	
Net Changes	356,094	422,229	(66,135)
Balances at 6/30/23	\$ 17,648,020	\$ 8,084,182	\$ 9,563,838
Return on Investments		6.7%	

Actuarial Information to Include in the Financial Statements for the June 30, 2023 Measurement Date



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

Note	Description	Amount
Α	Service cost	\$ 435,975
В	Interest on the total pension liability	926,978
Α	Changes of benefit terms	-
С	Differences between expected and actual experience	67,179
С	Changes of assumptions	(279,486)
Α	Employee contributions	(134,072)
D	Projected earnings on pension plan investments	(418,996)
С	Differences between expected and actual earnings on plan investments	126,557
Α	Pension plan administrative expense	2,687
Α	Other changes in fiduciary net position	-
	Total Pension Expense	\$ 726,822

#### Notes:

A Provided in the Changes in Net Pension Liability exhibit.

B Based on the following calculation:

	mount for Period (a)	Portion of Period (b)	Interest Rate (c)	E	rojected arnings x (b) x (c)
Beginning total pension liability	\$ 17,291,926	100%	5.50%	\$	951,056
Service cost (End of Year)	435,975	0%	5.50%		-
Benefit payments, including refunds of employee contributions	(875,572)	50%	5.50%		(24,078)
Total interest on the total pension liability				\$	926,978

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	A	Amount for	Portion of	Projected	Р	rojected
		Period	Period	Rate of Return	E	arnings
		(a)	(b)	(c)	(a)	x (b) x (c)
Beginning plan fiduciary net position	\$	7,661,953	100%	5.50%	\$	421,407
Employer contributions		656,511	50%	5.50%		18,054
Employee contributions		134,072	50%	5.50%		3,687
Benefit payments, including refunds of employee contributions		(875,572)	50%	5.50%		(24,078)
Administrative expense and other		(2,687)	50%	5.50%		(74)
Total Projected Earnings					\$	418,996





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

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

	red Outflows Resources	erred Inflows Resources
Differences between expected and actual experience	\$ 179,218	\$ 188,347
Changes of assumptions	24,491	607,952
Net difference between projected and actual earnings	542,372	
on pension plan investments		-
Total	\$ 746,081	\$ 796,299

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

Year ended June 30:	
2024	\$ (85,609)
2025	(258,925)
2026	312,497
2027	(18,181)
2028	-
Thereafter	-

Actuarial Information to Include in the Financial Statements for the June 30, 2023 Measurement Date

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



Total pension liability		2023		2022		2021		2020		2019		2018		2017		2016		2015		2014
Service cost	\$	435,975	\$	477,863	\$	483,899	\$	492,745	\$	517,224	\$	469,689	\$	438,163	\$	315,503	\$	325,644	\$	317,661
Interest		926,978		881,101		923,437		909,073		832,642		813,353		784,070		746,053		715,104		710,736
Changes of benefit terms		-		-		-		-		-		-		-		-		-		
Differences between expected and actual experience		(131,287)		(39,429)		192,690		(325,481)		786,297		(47,934)		34,579		(72,607)		(380,568)		-
Changes of assumptions		-		(1,215,906)		97,964		-		-		-		-		2,206,756		-		-
Benefit payments, including refunds of member contributions		(875,572)		(867,444)		(864,033)		(766,306)		(726,716)		(668,242)		(647,064)		(525,224)		(448,618)		(402,960
Net change in total pension liability		356,094		(763,815)		833,957		310,031		1,409,447		566,866		609,748		2,670,481		211,562		625,437
Total pension liability - beginning		17,291,926		18,055,741		17,221,784		16,911,753		15,502,306		14,935,440		14,325,692		11,655,211		11,443,649		10,818,212
Total pension liability - ending (a)	\$	17,648,020	\$	17,291,926	\$	18,055,741	\$	17,221,784	\$	16,911,753	\$	15,502,306	\$	14,935,440	\$	14,325,692	\$	11,655,211	\$	11,443,649
Plan fiduciary net position		2023		2022		2021		2020		2019		2018		2017		2016		2015		2014
Contributions - employer (including Premium Tax Allocation)	\$	656,511	\$	647,786	\$	655,035	\$	616,818	\$	564,127	\$	534.713	\$	510,203	\$	474,110	\$	443,192	\$	609,472
Contributions - member	•	134,072	•	122,343	•	117,900	•	113,721	•	110,461	•	115,929	•	105,346	•	116,759	•	113,195	•	103,725
Net investment income		509,905		(1,363,748)		1,698,862		204,358		389,083		188,982		563,267		(147,927)		124,608		553,537
Benefit payments, including refunds of member contributions		(875,572)		(867,444)		(864,033)		(766,306)		(726,716)		(668,242)		(647,064)		(525,224)		(448,618)		(402,960
Administrative expense		(2,687)		(1,000)		(1,315)		(1,373)		(794)		(750)		(600)		(600)		(600)		(650
Other		-		-		-		-		(750)		1,118		-		-		-		-
Net change in plan fiduciary net position	\$	422,229	\$	(1,462,063)	\$	1,606,449	\$	167,218	\$	335,411	\$	169,514	\$	531,152	\$	(82,882)	\$	231,777	\$	863,124
Plan fiduciary net position - beginning		7,661,953		9,124,016		7,517,567		7,350,349		7,014,938		6,845,425		6,314,273		6,397,155		6,165,378		5,302,254
Plan fiduciary net position - ending (b)	\$	8,084,182	\$	7,661,953	\$	9,124,016	\$	7,517,567	\$	7,350,349	\$	7,014,938	\$	6,845,425	\$	6,314,273	\$	6,397,155	\$	6,165,378
Employer's net pension liability - ending (a)-(b)	\$	9,563,838	\$	9,629,973	\$	8,931,725	\$	9,704,217	\$	9,561,404	\$	8,487,368	\$	8,090,015	\$	8,011,419	\$	5,258,056	\$	5,278,271
Plan fiduciary net position as a percentage of the total pension liability		45.81%		44.31%		50.53%		43.65%		43.46%		45.25%		45.83%		44.08%		54.89%		53.88%
otal perision liability		45.0176		44.3176		30.33 /6		43.03 //		43.40 //		45.25 /6		45.65 /6		44.00 /6		34.0976		33.00 /
Covered payroll	\$	1,266,133	\$	1,225,673	\$	1,148,573	\$	1,200,414	\$	1,259,753	\$	1,133,893	\$	1,078,997	\$	1,154,810	\$	1,182,275	\$	1,137,414
Employer's net pension liability as a percentage of covered payroll		755.36%		785.69%		777.64%		808.41%		758.99%		748.52%		749.77%		693.74%		444.74%		464.06%
		. 23.0070		. 23.0070				223.1170		. 20.0070		3.0270				223.1 170				.51.007
Expected average remaining service years of all participants		4.00		4.00		4.00		5.00		6.00		6.71		6.54		6.64		6.48		N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2023.

Changes of assumptions: There were no changes for FY2023.

Actuarial Information to Include in the Financial Statements for the June 30, 2023 Measurement Date

Schedule of Employer Contributions

Last 10 Fiscal Years



	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Actuarially determined contribution	\$ 882,044	\$ 1,005,982	\$ 986,325	\$ 995,398	\$ 888,848	\$ 784,264	\$ 743,605	\$ 706,172	\$ 467,987	\$ 478,959
Contributions in relation to the actuarially determined contribution										
Employer provided	425,248	397,428	396,428	347,129	324,419	303,196	283,360	264,823	247,498	231,307
State provided	 231,263	250,358	 258,607	269,689	 239,708	231,517	226,843	 209,287	 195,694	 378,165
Contribution deficiency (excess)	\$ 225,533	\$ 358,196	\$ 331,290	\$ 378,580	\$ 324,721	\$ 249,551	\$ 233,402	\$ 232,062	\$ 24,795	\$ (130,513)
Covered payroll	\$ 1,266,133	\$ 1,225,673	\$ 1,148,573	\$ 1,200,414	\$ 1,259,753	\$ 1,133,893	\$ 1,078,997	\$ 1,154,810	\$ 1,182,275	\$ 1,137,414
Contributions as a percentage of covered employee payroll	51.85%	52.85%	57.03%	51.38%	44.78%	47.16%	47.28%	41.06%	37.49%	53.58%

#### Notes to Schedule

#### Valuation date:

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

Methods and assumptions used to determine contribution rates:

Actuarial cost method Entry Age Normal
Amortization method Level Dollar
Remaining amortization period 15 to 27.5 years
Asset valuation method 4-year smoothed market

Inflation 2.50 percent

Salary increases Rates vary by years of service

Investment rate of return 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

Actuarial Information to Include in the Financial Statements for the June 30, 2023 Measurement Date



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

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

Year			Recognition Period (Years)	Increas	e (De	crease) in Per	ision	Expense Aris	sing fi	rom the Recog	gnitic	on of Difference	es be	tween Project 2024	ted an	id Actual Eari	nings	on Plan Inves	tment	s 2027
2019	\$	(4,737)	5	\$ (947)		(947)		(947)		(947)		(949)								
2020		198,889	5		\$	39,778		39,778		39,778		39,778		39,777						
2021		(1,287,938)	5				\$	(257,588)		(257,588)		(257,588)		(257,588)		(257,586)				
2022		1,817,492	5						\$	363,498		363,498		363,498		363,498		363,500		
2023		(90,909)	5								\$	(18,182)		(18,182)		(18,182)		(18,182)		(18,181)
Net increa	se (de	crease) in pension	expense								\$	126,557	\$	127,505	\$	87,730	\$	345,318	\$	(18,181)

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

							nces at 80, 2023				
Year	Investment Earnings Less than Projected (a)		,	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2023 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)				
2019	\$	-	\$	4,737	\$ 4,737	\$ -	\$	-			
2020		198,889		-	159,112	39,777		-			
2021		-		1,287,938	772,764	-		515,174			
2022		1,817,492		-	726,996	1,090,496		-			
2023		-		90,909	18,182	-		72,727			
						\$ 1,130,273	\$	587,901			



#### Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33 a 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.

	Differences between Expected and Actual	Recognition Period							Increase	e (Decreas	e) in Pension	Expense	Arising from	the F	Recognition	of Diff	ierences b	etwee	n Expected	and A	ctual Exper	ience								
Year	Experience	(Years)	Prior	2014	2015		2016	2	017	2018	201	9	2020		2021	2	2022		2023		2024	1	2025	20:	26	202	27	2028	The	ereafter
Prior	-	-																												
2014	-	-																												
2015	(380,568)	6.483253			\$ (58,	700)	(58,700)	(	(58,700)	(58,7)	00) (58	3,700)	(58,700)		(28,368)															
2016	(72,607)	6.642826				\$	(10,930)	(	(10,930)	(10,9	30) (10	0,930)	(10,930)		(10,930)		(7,027)													
2017	34,579	6.544158						\$	5,284	5,2	34 5	5,284	5,284		5,284		5,284		2,875											
2018	(47,934)	6.709907								\$ (7,1-	14) (7	7,144)	(7,144)		(7,144)		(7,144)		(7,144)		(5,070)									
2019	786,297	6.000000									\$ 131	1,050	131,050		131,050		131,050		131,050		131,047									
2020	(325,481)	5.000000										\$	(65,096)		(65,096)		(65,096)		(65,096)		(65,097)									
2021	192,690	4.000000												\$	48,173		48,173		48,173		48,171									
2022	(39,429)	4.000000														\$	(9,857)		(9,857)		(9,857)		(9,858)							
2023	(131,287)	4.000000																\$	(32,822)		(32,822)		(32,822)	(3	32,821)					
Net increas	e (decrease) in per	nsion expense																\$	67,179	\$	66,372	\$	(42,680)	\$ (3	32,821)	\$		\$	- \$	-

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

					ices at 30, 2023	
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2023 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resource (b) - (c)	f
Prior	\$ -	\$ -	\$ -	\$ -	\$	-
2014	-	-	-	-		-
2015	-	380,568	380,568	-		-
2016		72,607	72,607	-		-
2017	34,579	-	34,579	-		-
2018	-	47,934	42,864	-	5,07	70
2019	786,297	-	655,250	131,047		-
2020		325,481	260,384	-	65,09	97
2021	192,690	-	144,519	48,171		-
2022	-	39,429	19,714	-	19,7	15
2023	-	131,287	32,822	-	98,46	35
				\$ 179,218	\$ 188,34	17



for the June 30, 2023 Measurement Date

# B

#### 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.

		Recognition						Incr	ease (Decrease)	in Pension Expe	nse Arising fro	m the Effects of	Changes of Assump	otions					
Year	Changes of Assumptions	Period (Years)	Prior	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Thereafter
Prior	\$ -	-																	
2014																			
2015	-	6.483253																	
2016	2,206,756	6.642826				\$ 332,201	332,201	332,201	332,201	332,201	332,201	213,550							
2017	-	6.544158																	
2018	-	6.709907																	
2019	-	6.000000																	
2020	-	5.000000																	
2021	97,964	4.000000									\$ 24,491	24,491	24,491	24,491					
2022	(1,215,906)	4.000000										\$ (303,977)	(303,977)	(303,977)	(303,975)				
2023	-	4.000000																	
Net increas	e (decrease) in per	nsion expense											\$ (279,486)	\$ (279,486)	\$ (303,975)	\$ -	\$ -	\$ -	. \$

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

					Balan June 3		
Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2023 (c)	Ou Re	Deferred atflows of esources (a) - (c)	In Re	Deferred of lows of desources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$		\$	-
2014		-			-		-
2015	-	-			-		
2016	2,206,756	-	2,206,756		-		
2017	-	-			-		
2018		-			-		
2019	-	-			-		
2020		-			-		
2021	97,964	-	73,473		24,491		
2022		1,215,906	607,954		-		607,952
2023		-			-		
				\$	24,491	\$	607.952

# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2023 Measurement Date

Projection of Pension Plan's Fiduciary Net Position



		Gro	oss Nor (BO	mal Cos	it		Em	ploye	ee Contribi (BOY)	ution	s	Emp	er Normal ( (BOY)	Cos	t		Expen				Emplo		Contribu MOY)	tions		Prem		ax Alloc OY)	atio	n _
Fiscal Year		rrent nbers	Futu Memi		Total		Current Members		Future Members		Total	Current embers	Future Members		Total	urrent mbers	Futu Memb			Total	Current lembers		uture embers		Total	Current lembers	Fut Mem	ture ibers		Total
2023	\$ 4	13,246	\$	- :	\$ 413,24	6 \$	134,072	2 \$	-	\$	134,072	\$ 279,174	\$ -	\$	279,174	\$ 2,687	\$	-	\$	2,687	\$ 425,248	\$	-	\$	425,248	\$ 231,263	\$	-	\$	231,263
2024	\$ 4	10,880	\$ 2	6,447	\$ 437,32	7 \$	116,081	\$	7,536	\$	123,617	\$ 294,799	\$ 18,911	\$	313,710	\$ 1,217	\$	-	\$	1,217	\$ 435,591	\$	19,424	\$	455,015	\$ 274,216	\$	-	\$	274,216
2025	\$ 4	05,896	\$ 5	6,262	\$ 462,15	8 \$	114,298	3 \$	16,014	\$	130,312	\$ 291,598	\$ 40,248	\$	331,846	\$ 1,220	\$	27	\$	1,247	\$ 445,499	\$	41,367	\$	486,866	\$ 276,298	\$	-	\$	276,298
2026	\$ 4	01,885	\$ 8	5,919	\$ 487,80	4 \$	112,784	\$	24,429	\$	137,213	\$ 289,101	\$ 61,490	\$	350,591	\$ 1,195	\$	83	\$	1,278	\$ 457,706	\$	63,241	\$	520,947	\$ 289,857	\$	-	\$	289,857
2027	\$ 3	86,435	\$ 11	4,809	\$ 501,24	4 \$	108,577	\$	32,609	\$	141,186	\$ 277,858	\$ 82,200	\$	360,058	\$ 1,196	\$	114	\$	1,310	\$ 472,869	\$	84,544	\$	557,413	\$ 296,790	\$	-	\$	296,790
2028	\$ 3	65,928	\$ 15	8,606	\$ 524,53	4 \$	103,122	2 \$	45,030	\$	148,152	\$ 262,806	\$ 113,576	\$	376,382	\$ 1,197	\$	174	\$	1,371	\$ 479,600	\$	116,832	\$	596,432	\$ 303,896	\$	-	\$	303,896
2029	\$ 3	56,301	\$ 19	5,225	\$ 551,52	6 \$	100,422	2 \$	55,361	\$	155,783	\$ 255,879	\$ 139,864	\$	395,743	\$ 1,197	\$	208	\$	1,405	\$ 494,315	\$	143,867	\$	638,182	\$ 311,180	\$	-	\$	311,180
2030	\$ 3	50,802	\$ 22	8,860	\$ 579,66	2 \$	98,782	2 \$	64,812	\$	163,594	\$ 252,020	\$ 164,048	\$	416,068	\$ 1,196	\$	244	\$	1,440	\$ 514,112	\$	168,743	\$	682,855	\$ 321,044	\$	-	\$	321,044
2031	\$ 3	41,733	\$ 26	0,542	\$ 602,27	5 \$	96,029	\$	73,683	\$	169,712	\$ 245,704	\$ 186,859	\$	432,563	\$ 1,194	\$	282	\$	1,476	\$ 538,444	\$	192,211	\$	730,655	\$ 329,537	\$	-	\$	329,537
2032	\$ 3	24,619	\$ 29	9,880	\$ 624,49	9 \$	91,392	2 \$	84,727	\$	176,119	\$ 233,227	\$ 215,153	\$	448,380	\$ 1,192	\$	321	\$	1,513	\$ 560,489	\$	221,312	\$	781,801	\$ 339,738	\$	-	\$	339,738
2033	\$ 3	04,624	\$ 34	2,304	\$ 646,92	8 \$	86,492	2 \$	96,629	\$	183,121	\$ 218,132	\$ 245,675	\$	463,807	\$ 1,222	\$	360	\$	1,582	\$ 583,826	\$	252,701	\$	836,527	\$ 347,896	\$	-	\$	347,896
2034	\$ 2	89,511	\$ 38	5,962	\$ 675,47	3 \$	82,786	\$	108,853	\$	191,639	\$ 206,725	\$ 277,109	\$	483,834	\$ 1,219	\$	403	\$	1,622	\$ 610,053	\$	285,031	\$	895,084	\$ 357,299	\$	-	\$	357,299
2035	\$ 2	76,163	\$ 42	4,983	\$ 701,14	6 \$	79,471	\$	119,715	\$	199,186	\$ 196,692	\$ 305,268	\$	501,960	\$ 1,215	\$	448	\$	1,663	\$ 643,741	\$	313,999	\$	957,740	\$ 367,848	\$	-	\$	367,848
2036	\$ 2	58,216	\$ 46	9,529	\$ 727,74	5 \$	74,771	\$	132,134	\$	206,905	\$ 183,445	\$ 337,395	\$	520,840	\$ 1,210	\$	529	\$	1,739	\$ 677,704	\$	347,078	\$	1,024,782	\$ 378,109	\$	-	\$	378,109
2037	\$ 2	39,218	\$ 51	6,454	\$ 755,67	2 \$	69,806	\$	145,201	\$	215,007	\$ 169,412	\$ 371,253	\$	540,665	\$ 1,277	\$	505	\$	1,782	\$ 714,686	\$	381,831	\$	1,096,517	\$ 389,497	\$	-	\$	389,497
2038	\$ 2	14,712	\$ 56	3,617	\$ 778,32	9 \$	63,852	2 \$	158,293	\$	222,145	\$ 150,860	\$ 405,324	\$	556,184	\$ 1,272	\$	555	\$	1,827	\$ 756,397	\$	416,876	\$	1,173,273	\$ 409,618	\$	-	\$	409,618
2039	\$ 1	86,172	\$ 62	1,456	\$ 807,62	8 \$	56,516	\$	174,407	\$	230,923	\$ 129,656	\$ 447,049	\$	576,705	\$ 1,265	\$	644	\$	1,909	\$ 795,580	\$	459,822	\$	1,255,402	\$ 419,482	\$	-	\$	419,482
2040	\$ 1	65,701	\$ 67	6,601	\$ 842,30	2 \$	50,962	2 \$	189,687	\$	240,649	\$ 114,739	\$ 486,914	\$	601,653	\$ 1,297	\$	660	\$	1,957	\$ 842,495	\$	500,785	\$	1,343,280	\$ 429,593	\$	-	\$	429,593
2041	\$ 1	46,364	\$ 73	0,114	\$ 876,47	8 \$	45,793				250,236	\$ 100,571	\$ 525,671	\$	626,242	\$ .,=	\$	756	\$	2,045	\$ 896,621	\$	540,689	\$	1,437,310	\$ 439,956	\$	-	\$	439,956
2042	\$ 1	29,288	\$ 78	6,532	\$ 915,82	0 \$	41,178	3 \$	219,979	\$	261,157	\$ 88,110	\$ 566,553	\$	654,663	\$ 1,321	\$	775	\$	2,096	\$ 955,222	\$	582,700	\$	1,537,922	\$ 460,891	\$	-	\$	460,891
2043	\$ 1	10,088	\$ 83	8,544	\$ 948,63	2 \$	35,443	3 \$	234,182	\$	269,625	\$ 74,645	\$ 604,362	\$	679,007	\$ 1,312	\$	836	\$	2,148	\$ 1,023,981	\$	621,596	\$	1,645,577	\$ 473,872	\$	-	\$	473,872
2044	\$	84,488	\$ 90	4,480	\$ 988,96	8 \$	27,707	\$	252,613	\$	280,320	\$ 56,781	\$ 651,867	\$	708,648	\$ 1,301	\$	942	\$	2,243	\$ 1,090,272	\$	670,495	\$	1,760,767	\$ 492,638	\$	-	\$	492,638
2045	\$	70,759	\$ 96	1,933	\$ 1,032,69	2 \$	23,720	\$	268,912	\$	292,632	\$ 47,039	\$ 693,021	\$	740,060	\$ 1,334	\$	965	\$	2,299	\$ 1,171,232	\$	712,789	\$	1,884,021	\$ 30,936	\$	-	\$	30,936
2046	\$	60,876	\$ 1,01	2,749	\$ 1,073,62	5 \$	20,677	\$	283,427	\$	304,104	\$ 40,199	\$ 729,322	\$	769,521	\$ 1,367	\$	989	\$	2,356	\$ 42,656	\$	750,099	\$	792,755	\$ -	\$	-	\$	-
2047	\$		\$ 1,06		\$ 1,118,50	8 \$	18,099	\$		-	316,693	\$ 34,819	\$ 766,996	\$	801,815	\$ 		.,	\$	2,415	\$		788,867	\$	825,985	\$ -	\$	-	\$	-
2048	\$	41,059	\$ 1,10	8,980	\$ 1,150,03	9 \$	14,192	2 \$	311,292	\$	325,484	\$ 26,867	\$ 797,688	\$	824,555	\$ 1,388	\$ 1	1,087	\$	2,475	\$ 28,984	\$	820,418	\$	849,402	\$ -	\$	-	\$	-
2049	\$	23,641	\$ 1,16	5,262	\$ 1,188,90	3 \$	8,204	\$	327,776	\$	335,980	\$ 15,437	\$ 837,486	\$	852,923	\$ 1,374	\$ 1	1,210	\$	2,584	\$ 17,229	\$	861,419	\$	878,648	\$ -	\$	-	\$	-
2050		12,529	\$ 1,22	3,274	\$ 1,235,80	3 \$	4,356	\$	344,678	\$	349,034	\$ 8,173	\$ 878,596	\$	886,769	\$ 1,358	\$ 1	1,291	\$	2,649	\$ 9,752	\$	903,725	\$	913,477	\$ -	\$	-	\$	-
2051	\$	,	\$ 1,27		\$ 1,284,21	6 \$	2,639	\$	360,168	\$	362,807	\$ 4,948	\$ 916,461	\$	921,409	\$ 1,392		,	\$	2,715	\$ 6,475	\$	942,649	\$	949,124	\$ -	\$	-	\$	-
2052	\$	4,597	\$ 1,32	4,603	\$ 1,329,20	0 \$	1,598	3 \$	374,077	\$	375,675	\$ 2,999	\$ 950,526	\$	953,525	\$ 1,374	\$ 1	1,409	\$	2,783	\$ 4,454	\$	977,725	\$	982,179	\$ -	\$	-	\$	-
2053	\$				\$ 1,376,17	2 \$	905	5 \$	388,148	\$	389,053	\$ 1,690	\$ 985,429		987,119	\$ 		.,	\$	2,853	\$		,013,665	\$	1,016,754	\$ -	\$	-	\$	-
2054	\$	1,397	\$ 1,42	3,682	\$ 1,425,07	9 \$	490	\$	402,530	\$	403,020	\$ 907	\$ 1,021,152	\$	1,022,059	\$ 1,388		,	\$	2,924	\$ 2,320	\$ 1,	,050,394	\$	1,052,714	\$ -	\$	-	\$	-
2055	\$		\$ 1,47		\$ 1,476,82	2 \$	264	\$	417,505		417,769	\$ 489			1,059,053	\$		,	\$	2,997	\$		,088,916		1,090,784	\$ -	\$	-	\$	-
2056	\$		\$ 1,52		\$ 1,528,05		143	3 \$	432,184		432,327	\$ 266	1,095,465			\$ 		,	\$	3,072	\$		,126,917		1,128,532	\$ -	\$	-	\$	-
2057	\$			0,973					447,338		447,427	\$ 164			1,133,799	\$ 		.,	\$	3,149	\$		,166,226		1,167,710	\$	\$	-	\$	-
2058	\$	75	\$ 1,63		\$ 1,636,76		27	\$	463,191	\$	463,218	\$ 48	1,173,501			\$ ,		,	\$	3,169	\$		,207,221		1,208,559	\$ -	\$	-	\$	-
2059	\$	-	\$ 1,69		\$ 1,693,74			\$	479,491	\$	479,491	\$ -			1,214,256	\$		,	\$	3,248	\$		,249,129		1,250,449	\$ -	\$	-	\$	-
2060	\$	-	\$ 1,75	,-	\$ 1,751,91		-	\$	496,169		496,169	\$ -			1,255,745	\$ ,		,	•	3,329	\$ ,		,291,856		1,293,145	\$ -	\$	-	\$	-
2061	\$	-	\$ 1,81		\$ 1,812,85			\$	513,530		513,530	\$ -			1,299,321	\$ ,		2,157		3,412	\$		,336,731		1,337,986	\$ -	\$	-	\$	-
2062	\$	-	\$ 1,87					\$	531,534		531,534	\$ -			1,344,746	\$ , .				3,497	\$		,383,510		1,384,728	\$ -	\$	-	\$	-
2063	\$	-	\$ 1,94	2,698	\$ 1,942,69	8 \$	-	\$	550,344	\$	550,344	\$ -	\$ 1,392,354	\$	1,392,354	\$ 1,180	\$ 2	2,404	\$	3,584	\$ 1,180	\$ 1,	,432,535	\$	1,433,715	\$ -	\$	-	\$	-

# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2023 Measurement Date

Projection of Pension Plan's Fiduciary Net Position



		Actu	ıaria	al Accrued Liability (B	OY)						CI	ose	ed Group Asset Projection	n			
Fiscal Year	Cur	rent Members		Future Members		Total	Fic	duciary Net Position (BOY)	Funded Ratio (BOY)		Projected EEC Contributions (MOY)	Pi	rojected ER Contrib + Premium Tax (MOY)	Projected BP (MOY)	Projected Admin Expenses (MOY)	Pi	ojected Investment Earnings
2023	\$	17,167,484	\$	-	\$	17,167,484	\$	7,661,953	44.63%	\$	134,072	\$	656,511 \$	875,572	\$ 2,687	\$	509,905
2024	\$	17,648,342	\$	-	\$	17,648,342	\$	8,084,182	45.81%	\$	119,231	\$	709,807 \$	909,877	\$ 1,217	\$	442,404
2025	\$	18,117,915	\$	27,515	\$	18,145,430	\$	8,444,530	46.61%	\$	117,399	\$	721,797 \$	919,527	\$ 1,220	\$	462,237
2026	\$	18,598,145	\$	86,900	\$	18,685,045	\$	8,825,216	47.45%	\$	115,844	\$	747,563 \$	925,324	\$ 1,195	\$	483,675
2027	\$	19,094,602	\$	179,001	\$	19,273,603	\$	9,245,779	48.42%	\$	111,523	\$	769,659 \$	950,579	\$ 1,196	\$	506,602
2028	\$	19,576,124	\$	304,183	\$	19,880,307	\$	9,681,787	49.46%	\$	105,920	\$	783,496 \$	986,208	\$ 1,197	\$	529,840
2029	\$	20,025,899		479,355		20,505,254	\$	10,113,639	50.50%	\$	103,147						553,562
2030	\$	20,469,381	\$	699,181	\$	21,168,562	\$	10,568,115	51.63%	\$	101,462	\$	835,156 \$	1,021,199	\$ 1,196	\$	578,919
2031	\$	20,916,387	\$	962,186	\$	21,878,573	\$	11,061,257	52.88%	\$	98,634	\$	867,981 \$	1,045,198	\$ 1,194	\$	606,205
2032	\$	21,353,760	\$	1,268,146	\$	22,621,906	\$	11,587,685	54.27%	\$	93,872	\$	900,227 \$	1,083,677	\$ 1,192	\$	634,860
2033	\$	21,757,611	\$	1,626,829	\$	23,384,440	\$	12,131,776	55.76%	\$	88,839	\$	931,722 \$	1,116,723	\$ 1,222	\$	664,605
2034	\$	22,128,636	\$	2,044,175	\$	24,172,811	\$	12,698,997	57.39%	\$	85,032	\$	967,352 \$	1,148,152	\$ 1,219	\$	695,813
2035	\$	22,471,842	\$	2,523,900	\$	24,995,742	\$	13,297,824	59.18%	\$	81,627	\$	1,011,589 \$	1,171,718	\$ 1,215	\$	729,217
2036	\$	22,795,636	\$	3,063,722	\$	25,859,358	\$	13,947,324	61.18%	\$	76,800	\$	1,055,813 \$	1,210,949	\$ 1,210	\$	764,945
2037	\$	23,078,009	\$	3,671,876	\$	26,749,885	\$	14,632,723	63.41%	\$	71,700	\$	1,104,183 \$	1,251,021	\$ 1,277	\$	802,726
2038	\$	23,314,711	\$	4,354,248	\$	27,668,959	\$	15,359,034	65.88%	\$	65,584	\$	1,166,015 \$	1,294,156	\$ 1,272	\$	843,015
2039	\$	23,494,272	\$	5,115,085	\$	28,609,357	\$	16,138,220	68.69%	\$	58,049	\$	1,215,062 \$	1,355,450	\$ 1,265	\$	885,334
2040	\$	23,590,642	\$	5,968,935	\$	29,559,577	\$	16,939,950	71.81%	\$	52,345	\$	1,272,088 \$	1,398,012	\$ 1,297	\$	929,666
2041	\$	23,626,999	\$	6,916,772	\$	30,543,771	\$	17,794,740	75.32%	\$	47,035	\$	1,336,577 \$	1,440,602	\$ 1,289	\$	977,129
2042	\$	23,601,210	\$	7,961,205	\$	31,562,415	\$	18,713,589	79.29%	\$	42,295	\$	1,416,113 \$	1,474,365	\$ 1,321	\$	1,028,779
2043	\$	23,521,308	\$	9,110,536	\$	32,631,844	\$	19,725,090	83.86%	\$	36,405	\$	1,497,853 \$	1,528,537	\$ 1,312	\$	1,085,000
2044	\$	23,361,114	\$	10,365,133	\$	33,726,247	\$	20,814,500	89.10%	\$	28,459	\$	1,582,910 \$	1,585,216	\$ 1,301	\$	1,145,472
2045	\$	23,106,884	\$	11,738,047	\$	34,844,931	\$	21,984,824	95.14%	\$	24,364	\$	1,202,168 \$	1,610,393	\$ 1,334	\$	1,198,714
2046	\$	22,798,327	\$	13,214,807	\$	36,013,134	\$	22,798,343	100.00%	\$	21,238	\$	42,656 \$	1,631,984	\$ 1,367	\$	1,211,326
2047	\$	22,440,196	\$	14,788,666	\$	37,228,862	\$	22,440,212	100.00%	\$	18,590	\$	37,118 \$	1,642,744	\$ 1,354	\$	1,191,116
2048	\$	22,042,920	\$	16,463,146	\$	38,506,066	\$	22,042,938	100.00%	\$	14,577	\$	28,984 \$	1,672,478	\$ 1,388	\$	1,168,128
2049	\$	21,580,742	\$	18,220,164	\$	39,800,906	\$	21,580,761	100.00%	\$	8,427	\$	17,229 \$	1,711,648	\$ 1,374	\$	1,141,160
2050	\$	21,034,536	\$	20,066,652	\$	41,101,188	\$	21,034,555	100.00%	\$	4,474	\$	9,752 \$	1,723,855	\$ 1,358	\$	1,110,478
2051	\$	20,434,027	\$	22,006,756	\$	42,440,783	\$	20,434,046	100.00%	\$	2,711	\$	6,475 \$	1,716,841	\$ 1,392	\$	1,077,503
2052	\$	19,802,481	\$	24,039,041	\$	43,841,522	\$	19,802,502	100.00%	\$	1,641	\$	4,454 \$	1,701,766	\$ 1,374	\$	1,043,094
2053	\$	19,148,529	\$	26,148,718	\$	45,297,247	\$	19,148,551	100.00%	\$	930	\$	3,089 \$	1,681,398	\$ 1,354	\$	1,007,623
2054	\$	18,477,418	\$	28,330,493	\$	46,807,911	\$	18,477,442	100.00%	\$	503	\$	2,320 \$	1,656,308	\$ 1,388	\$	971,359
2055	\$	17,793,903	\$	30,584,678	\$	48,378,581	\$	17,793,928	100.00%	\$	271	\$	1,868 \$	1,627,276	\$ 1,366	\$	934,536
2056	\$	17,101,935	\$	32,914,704	\$	50,016,639	\$	17,101,961	100.00%	\$	147	\$	1,615 \$	1,595,146	\$ 1,342	\$	897,340
2057	\$	16,404,548	\$	35,315,314	\$	51,719,862	\$	16,404,575	100.00%	\$	91	\$	1,484 \$	1,560,344	\$ 1,316	\$	859,924
2058	\$	15,704,386	\$	37,784,572	\$	53,488,958	\$	15,704,414	100.00%	\$	28	\$	1,338 \$	1,523,745	\$ 1,288	\$	822,403
2059	\$	15,003,119		40,326,180		55,329,299	\$	15,003,150	100.00%	\$		\$					784,880
2060	\$	14,302,914		42,942,034		57,244,948	\$	14,302,947	100.00%	\$	_	\$					747,464
2061	\$	13,605,654		45,628,856		59,234,510	\$	13,605,689	100.00%	\$	_	\$					710,242
2062	\$	12,912,735		48,387,926		61,300,661	\$	12,912,771	100.00%	\$	_	\$	1,218 \$				673,287
2063	\$	12,225,422		51,222,124		63,447,546	\$	12,225,459	100.00%	\$	_	\$					636,657
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# City of St. Albans, West Virginia Policemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements for the June 30, 2023 Measurement Date



**Projection of Pension Plan's Fiduciary Net Position** 

				Calcu	latior	n of Single Equivaler	nt Rate			
iscal Year	"Fund	ded" Portion of BP	"Unfunde	ed" Portion of BP	P۱	/ of "Funded" BP	PV of "U	Infunded" BP		f BP Using a Single DR
2023	\$	875,572	\$	-	\$	852,444	\$	-	\$	852,44
2024	\$	909,877	\$	-	\$	839,661	\$	-	\$	839,66
2025	\$	919,527	\$	-	\$	804,328	\$	-	\$	804,32
2026	\$	925,324	\$	-	\$	767,203	\$	-	\$	767,20
2027	\$	950,579	\$	-	\$	747,054	\$	-	\$	747,05
2028	\$	986,208	\$	-	\$	734,649	\$	-	\$	734,64
2029	\$	1,006,531	\$	-	\$	710,700	\$	-	\$	710,70
2030	\$	1,021,199	\$	-	\$	683,466	\$	-	\$	683,46
2031	\$	1,045,198	\$	-	\$	663,060	\$	-	\$	663,06
2032	\$	1,083,677	\$	-	\$	651,631	\$	-	\$	651,63
2033	\$	1,116,723	\$	-	\$	636,494	\$	-	\$	636,49
2034	\$	1,148,152	\$	-	\$	620,292	\$	-	\$	620,29
2035	\$	1,171,718	\$	-	\$	600,022	\$	-	\$	600,02
2036	\$	1,210,949	\$	_	\$	587,784	\$	-	\$	587,78
2037	\$	1,251,021	\$	-	\$	575,578	\$	_	\$	575,57
2038	\$	1,294,156	\$	-	\$	564,382	\$	-	\$	564,38
2039	\$	1,355,450	\$	_	\$	560,297	\$	_	\$	560,29
2040	\$	1,398,012	\$	_	\$	547,763	\$	_	\$	547,76
2041	\$	1,440,602	\$	_	\$	535,024	\$	_	\$	535,02
2042	\$	1,474,365	\$	_	\$	519,018	\$	_	\$	519,01
2042	\$	1,528,537	\$	_	\$	510,036	\$	_	\$	510,03
2043	\$	1,585,216	\$	_	\$	501,373	\$		\$	501,37
2044	\$		\$	_	\$	482,783	\$	_	\$	
		1,610,393		-			\$	-	\$ \$	482,78
2046	\$	1,631,984	\$	-	\$	463,749		-		463,74
2047	\$	1,642,744	\$	-	\$	442,471	\$	-	\$	442,47
2048	\$	1,672,478	\$	-	\$	426,995	\$	-	\$	426,99
2049	\$	1,711,648	\$	-	\$	414,214	\$	-	\$	414,21
2050	\$	1,723,855	\$	-	\$	395,420	\$	-	\$	395,42
2051	\$	1,716,841	\$	-	\$	373,280	\$	-	\$	373,28
2052	\$	1,701,766	\$	-	\$	350,713	\$	-	\$	350,7
2053	\$	1,681,398	\$	-	\$	328,451	\$	-	\$	328,45
2054	\$	1,656,308	\$	-	\$	306,682	\$	-	\$	306,68
2055	\$	1,627,276	\$	-	\$	285,599	\$	-	\$	285,59
2056	\$	1,595,146	\$	-	\$	265,365	\$	-	\$	265,36
2057	\$	1,560,344	\$	-	\$	246,043	\$	-	\$	246,04
2058	\$	1,523,745	\$	-	\$	227,746	\$	-	\$	227,74
2059	\$	1,485,083	\$	-	\$	210,395	\$	-	\$	210,39
2060	\$	1,444,722	\$	-	\$	194,007	\$	-	\$	194,00
2061	\$	1,403,160	\$	-	\$	178,602	\$	-	\$	178,60
2062	\$	1,360,598	\$	-	\$	164,156	\$	-	\$	164,15
2063	\$	1,317,396	\$	-	\$	150,658	\$	-	\$	150,65