

GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2021



### Submitted by:

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December 3, 2021

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, 2021

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 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 a blended discount rate of 2.77%. The plan's expected gross rate of investment return of 4.00% 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.

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. Barbara Hughes December 3, 2021 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 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.



Ms. Barbara Hughes December 3, 2021 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, 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



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	\$ 26,398,520
Plan fiduciary net position	 (3,026,697)
Employer's net pension liability	\$ 23,371,823
Plan fiduciary net position as a percentage of the total pension liability	11.47%

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) 3.12% Single discount rate (EOY) 2.77%

Investment rate of return (BOY) 4.00%, net of pension plan investment expense, including inflation Investment rate of return (EOY) 4.00%, net of pension plan investment expense, including inflation

Long-term municpal bond rate (BOY) 2.45% Long-term municpal 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
Year assets are expected to be depleted
2029

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, 2020 actuarial valuation report.

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

		Current	
	1% Decrease 1.77%	Discount Rate 2.77%	1% Increase 3.77%
Employer's net pension liability	\$ 28,345,172	\$ 23,371,823	\$ 19,506,680

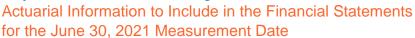
## City of St. Albans, West Virginia Firemen's Pension and Relief Fund Actuarial Information to Include in the Financial Statements

for the June 30, 2021 Measurement Date



### Changes in the Net Pension Liability

	I Total Pension Liability (a)	ncrease (Decrease Plan Fiduciary Net Position (b)	) Net Pension Liability (a) - (b)
Balances at 6/30/20	\$ 25,637,016	\$ 2,479,918	\$ 23,157,098
Changes for the year:			
Service cost	842,674		842,674
Interest	786,485		786,485
Changes of benefit terms	-		-
Differences between expected and actual experience	725,415		725,415
Changes of assumptions	(734,764)		(734,764)
Contributions - employer (including Premium Tax Allocation)		734,179	(734,179)
Contributions - member		106,096	(106,096)
Net investment income		565,869	(565,869)
Benefit payments, including refunds of member contributions	(858,306)	(858,306)	-
Administrative expense		(1,059)	1,059
Other			
Net Changes	761,504	546,779	214,725
Balances at 6/30/21	\$ 26,398,520	\$ 3,026,697	\$ 23,371,823
Return on Investments		22.9%	





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

Note	Description	Amount
Α	Service cost	\$ 842,674
В	Interest on the total pension liability	786,485
Α	Changes of benefit terms	-
С	Differences between expected and actual experience	305,974
С	Changes of assumptions	13,429
Α	Employee contributions	(106,096)
D	Projected earnings on pension plan investments	(98,816)
С	Differences between expected and actual earnings on plan investments	(118,409)
Α	Pension plan administrative expense	1,059
Α	Other changes in fiduciary net position	-
	Total Pension Expense	\$ 1,626,300

#### Notes:

A Provided in the Changes in Net Pension Liability exhibit.

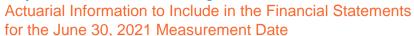
B Based on the following calculation:

	A	mount for Period (a)	Portion of Period (b)	Interest Rate (c)	E	rojected arnings x (b) x (c)
Beginning total pension liability	\$	25,637,016	100%	3.12%	\$	799,875
Service cost (End of Year)		842,674	0%	3.12%		-
Benefit payments, including refunds of employee contributions		(858,306)	50%	3.12%		(13,390)
Total interest on the total pension liability					\$	786,485

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	A	mount for	Portion of	Projected	Pi	ojected
		Period	Period	Rate of Return	E	arnings
		(a)	(b)	(c)	(a)	x (b) x (c)
Beginning plan fiduciary net position	\$	2,479,918	100%	4.00%	\$	99,197
Employer contributions		734,179	50%	4.00%		14,684
Employee contributions		106,096	50%	4.00%		2,122
Benefit payments, including refunds of employee contributions		(858,306)	50%	4.00%		(17,166)
Administrative expense and other		(1,059)	50%	4.00%		(21)
Total Projected Earnings					\$	98,816





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:

	red Outflows Resources	ferred Inflows f Resources
Differences between expected and actual experience	\$ 851,730	\$ 13,086
Changes of assumptions	907,777	614,732
Net difference between projected and actual earnings	-	
on pension plan investments		382,835
Total	\$ 1,759,507	\$ 1,010,653

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	\$ 607,367
2023	332,933
2024	(96, 168)
2025	(95,278)
2026	-
Thereafter	-

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	\$	842,674	\$	672,913	\$	669,988	\$	611,643	\$	711,190	\$	395,160	\$	367,972	\$	433,486	\$ -	\$ -
Interest		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		725,415		389,340		306,909		(97,774)		47,249		95,553		(258,366)		-	-	-
Changes of assumptions		(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		(858,306)		(1,258,163)		(646,610)		(636,775)		(617,725)		(646,025)		(578,970)		(538,173)	-	-
Net change in total pension liability		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		25,637,016		23,693,745		21,637,355		21,195,647		22,537,320		17,080,553		16,271,033		14,932,611	-	-
Total pension liability - ending (a)	\$	26,398,520	\$	25,637,016	\$	23,693,745	\$	21,637,355	\$	21,195,647	\$	22,537,320	\$	17,080,553	\$	16,271,033	\$ -	\$ -
Plan fiduciary net position		2021		2020		2019		2018		2017		2016		2015		2014	2013	2012
Contributions - employer (including Premium Tax Allocation)	\$	734,179	\$	618,846	\$	668,884	\$	526,787	\$	449,321	\$	434,429	\$	423,731	\$	460,171	\$ -	\$ -
Contributions - member		106,096		106,308		106,691		101,008		94,205		99,072		90,837		92,793	-	-
Net investment income		565,869		110,022		131,865		79,339		207,323		(53,069)		55,783		239,199	-	-
Benefit payments, including refunds of member contributions		(858,306)		(1,258,163)		(646,610)		(636,775)		(617,725)		(646,025)		(578,970)		(538,173)	-	-
Administrative expense		(1,059)		(6,151)		956		(750)		(750)		(6,201)		(1,579)		(2,633)	-	-
Other		-		-		(599)		1,730		-		-		-		-	-	-
Net change in plan fiduciary net position	\$	546,779	\$	(429,138)	\$	261,187	\$	71,339	\$	132,374	\$	(171,794)	\$	(10,198)	\$	251,357	\$ 	\$ -
Plan fiduciary net position - beginning		2,479,918		2,909,056		2,647,869		2,576,530		2,444,156		2,615,950		2,626,148		2,374,791	-	-
Plan fiduciary net position - ending (b)	\$	3,026,697	\$	2,479,918	\$	2,909,056	\$	2,647,869	\$	2,576,530	\$	2,444,156	\$	2,615,950	\$	2,626,148	\$ -	\$ -
Employer's net pension liability - ending (a)-(b)	\$	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		11.47%		9.67%		12.28%		12.24%		12.16%		10.84%		15.32%		16.14%	N/A	N/A
Covered payroll	\$	1,121,112	\$	968,872	\$	954.643	\$	914.121	\$	912,222	\$	818.360	\$	827.407	\$	1.044.493	N/A	N/A
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Employer's net pension liability as a percentage of covered payroll		2084.70%		2390.11%		2177.22%		2077.35%		2041.07%		2455.30%		1748.18%		1306.36%	N/A	N/A
Expected average remaining service years of all participants		5.00		4.00		4.00		4.62		4.82		4.84		4.56		N/A	N/A	N/A

Notes to Schedule:

Benefit changes: There were no changes for FY2021.

Changes of assumptions:

The discount rate changed from 3.12% to 2.77%. 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.

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	\$ 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	465,316	371,125	441,061	307,391	241,363	224,816	217,308	238,863	238,516	-
State provided	 268,863	 247,721	227,823	219,396	 207,958	 209,613	206,423	 221,308	191,580	
Contribution deficiency (excess)	\$ 817,501	\$ 869,991	\$ 744,267	\$ 716,372	\$ 729,956	\$ 641,736	\$ 343,556	\$ 352,498	\$ 313,504	\$ -
Covered payroll	\$ 1,121,112	\$ 968,872	\$ 954,643	\$ 914,121	\$ 912,222	\$ 818,360	\$ 827,407	\$ 1,044,493	\$ 913,506	N/A
Contributions as a percentage of covered employee payroll	65.49%	63.87%	70.07%	57.63%	49.26%	53.09%	51.21%	44.06%	47.08%	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 4.00%, 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.

Year	betwee and Ad on P	ifferences een Projected ctual Earnings ension Plan vestments	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025
2017	\$	(111,274)	5	\$ (22,255)	(22,255)	(22,255)	(22,255)	(22,254)				
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)
Net increa	se (decre	ease) in pension	expense					\$ (118,409)	\$ (96,157)	\$ (98,971)	\$ (94,298)	\$ (93,409)

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

							ances at 30, 2021						
Year	Investmen Less than	Projected	vestment Earnings ater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	Oi Re	Deferred utflows of esources (a) - (c)	Deferred Inflows of Resources (b) - (c)						
2017	\$	-	\$ 111,274	\$ 111,274	\$	-	\$	-					
2018		14,088	-	11,272		2,816		-					
2019		-	23,363	14,019		-		9,344					
2020		-	4,443	1,778		-		2,665					
2021		-	467,053	93,411		-		373,642					
					\$	2,816	\$	385,651					

for the June 30, 2021 Measurement Date

## B

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.

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2012	2013	2014	Incre 2015	ease (D	ecrease) in	on Expense		ng from th	cognition of	erences be	tween Expected	d and	Actual Exp	2023	20	24	2025	20	026	Thereafter
Prior	-	-																			-		-	-
2012		-																						
2013		-																						
2014	-	-																						
2015	(258,366)	4.555504					\$ (56,71	5)	(56,715)	(56,715)	(	(56,715)	(31,506)											
2016	95,553	4.835426						\$	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)		(13,086)							
2019	306,909	4.000000											\$ 76,727	76,727	76,727		76,728							
2020	389,340	4.000000												\$ 97,335	97,335		97,335	97,335						
2021	725,415	5.000000													\$ 145,083		145,083	145,083	14	15,083	145,083			
Net increas	e (decrease) in per	nsion expense													\$ 305,974	\$	306,060	\$ 242,418	\$ 14	15,083	\$ 145,083	\$		\$ -

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

				Balar June :	nces at 30, 202	
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	Deferred Outflows of Resources (a) - (c)	Inf Re:	eferred lows of sources o) - (c)
Prior	\$ -	\$	\$ -	\$ -	\$	
2012	-	-	-	-		-
2013	-	-	-	-		-
2014		-		-		
2015	-	258,366	258,366	-		
2016	95,553	-	95,553	-		
2017	47,249	-	47,249	-		
2018		97,774	84,688	-		13,086
2019	306,909	-	230,181	76,728		
2020	389,340	-	194,670	194,670		
2021	725,415	-	145,083	580,332		
				\$ 851,730	\$	13,086

#### Actuarial Information to Include in the Financial Statements

for the June 30, 2021 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						Increa	se (Decrease) in F	ension Expens	se Arising from t	he Effects of Ch	anges of Assum	ptions					
Year	Changes of Assumptions	Period (Years)	Prior	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafte
Prior	\$ -	-																	
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	574,779	4.555504					\$ 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)	(26,921)					
2019	939,593	4.000000									\$ 234,898	234,898	234,898	234,899					
2020	1,345,756	4.000000										\$ 336,439	336,439	336,439	336,439				
2021	(734,764)	5.000000											\$ (146,953)	(146,953)	(146,953)	(146,953)	(146,952)		
Net increas	se (decrease) in pen	sion expense											\$ 13,429	\$ 397,464	\$ 189,486	\$ (146,953)	\$ (146,952)	\$ -	\$

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)	O R	Balan June 3 Deferred utflows of esources (a) - (c)	0, 20 [ Ir Re	
Prior	\$ -	\$ -	\$ -	\$	-	\$	-
2012	-	-	-		-		-
2013	-	-	-		-		-
2014		-	-		-		-
2015	574,779	-	574,779		-		-
2016	4,897,997	-	4,897,997		-		-
2017	-	2,169,156	2,169,156		-		-
2018	-	201,141	174,220		-		26,921
2019	939,593	-	704,694		234,899		-
2020	1,345,756	-	672,878		672,878		-
2021	-	734,764	146,953		-		587,811
		·	•	\$	907,777	\$	614,732

## City of St. Albans, 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



		Gre	oss Normal Co	ost			Emp	loye	ee Contribu	ution	ıs		Emp		er Normal (BOY)	Co	st				xpenses (MOY)				Emplo		Contribu	tions	;		Premi	um Ta (MC	x Alloc DY)	ation	
Fiscal Year		rent ibers	Future Members		Total		Current Members		Future Members		Total		Current embers		Future Members		Total		irrent mbers		Future Members		Total		Current Members		Future embers		Total		urrent mbers	Fut Mem			Total
2021	\$ 6	10,714	\$ -	\$	610,714	\$	104,460	\$	-	\$	104,460	\$	506,254	\$	-	\$	506,254	\$	2,969	\$	-	\$	2,969	\$	315,316	\$	-	\$	315,316	\$ 2	268,863	\$	-	\$	268,863
2022	\$ 60	03,395	\$ 40,761	\$	644,156	\$	102,508	\$	7,527	\$	110,035	\$	500,887	\$	33,234	\$	534,121	\$	2,772	\$	271	\$	3,043	\$	303,225	\$	34,163	\$	337,388	\$ 2	259,683	\$	-	\$	259,683
2023	\$ 59	95,604	\$ 83,163	\$	678,767	\$	100,422	\$	15,379	\$	115,801	\$	495,182	\$	67,784	\$	562,966	\$	2,786	\$	333	\$	3,119	\$	291,546	\$	69,459	\$	361,005	\$ 2	261,740	\$	-	\$	261,740
2024	\$ 57	79,432	\$ 125,076	\$	704,508	\$	96,944	\$	23,147	\$	120,091	\$	482,488	\$	101,929	\$	584,417	\$	2,741	\$	394	\$	3,135	\$	281,933	\$	104,342	\$	386,275	\$ 2	273,253	\$	-	\$	273,253
2025	\$ 55	52,395	\$ 178,878	\$	731,273	\$	91,746	\$	32,770	\$	124,516	\$	460,649	\$	146,108	\$	606,757	\$	2,810	\$	466	\$	3,276	\$	263,846	\$	149,468	\$	413,314	\$ 2	280,070	\$	-	\$	280,070
2026	\$ 53	31,832	\$ 239,451	\$	771,283	\$	87,652	\$	43,493	\$	131,145	\$	444,180	\$	195,958	\$	640,138	\$	2,820	\$	538	\$	3,358	\$	241,869	\$	200,377	\$	442,246	\$ 2	287,057	\$	-	\$	287,057
2027	\$ 52	21,756	\$ 290,856	\$	812,612	\$	85,217	\$	52,798	\$	138,015	\$	436,539	\$	238,058	\$	674,597	\$	2,829	\$	613	\$	3,442	\$	229,818	\$	243,385	\$	473,203	\$ 2	294,796	\$	-	\$	294,796
2028	\$ 50	07,406	\$ 336,908	\$	844,314	\$	81,883	\$	61,185	\$	143,068	\$	425,523	\$	275,723	\$	701,246	\$	2,900	\$	628	\$	3,528	\$	224,516	\$	281,811	\$	506,327	\$ 3	304,064	\$	-	\$	304,064
2029	\$ 46	61,887	\$ 387,855	\$	849,742	\$	73,789	\$	69,950	\$	143,739	\$	388,098	\$	317,905	\$	706,003	\$	2,908	\$	708	\$	3,616	\$	216,861	\$	324,909	\$	541,770	\$ 3	312,849	\$	-	\$	312,849
2030	\$ 4	13,073	\$ 478,832	\$	891,905	\$	65,557	\$	85,220	\$	150,777	\$	347,516	\$	393,612	\$	741,128	\$	2,848	\$	930	\$	3,778	\$	177,357	\$	402,337	\$	579,694	\$ 3	322,782	\$	-	\$	322,782
2031	\$ 38	83,003	\$ 545,753	\$	928,756	\$	60,434	\$	96,692	\$	157,126	\$	322,569	\$	449,061	\$	771,630	\$	2,919	\$	1,027	\$	3,946	\$	161,292	\$	458,981	\$	620,273	\$ 3	330,821	\$	-	\$	330,821
2032	\$ 34	45,777	\$ 612,685	\$	958,462	\$	54,125	\$	107,894	\$	162,019	\$	291,652	\$	504,791	\$	796,443	\$	2,922	\$	1,123	\$	4,045	\$	147,781	\$	515,911	\$	663,692	\$ 3	339,061	\$	-	\$	339,061
2033	\$ 30	02,756	\$ 685,686	\$	988,442	\$	46,995	\$	119,840	\$	166,835	\$	255,761	\$	565,846	\$	821,607	\$	2,924	\$	1,299	\$	4,223	\$	131,799	\$	578,351	\$	710,150	\$ 3	348,421	\$	-	\$	348,421
2034	\$ 26	67,043	\$ 768,365	\$ 1	1,035,408	\$	41,322	\$	133,459	\$	174,781	\$	225,721	\$	634,906	\$	860,627	\$	2,997	\$	1,332	\$	4,329	\$	111,049	\$	648,812	\$	759,861	\$ 3	359,529	\$	-	\$	359,529
2035	\$ 23	38,443	\$ 836,890	\$ 1	1,075,333	\$	36,844	\$	144,775	\$	181,619	\$	201,599	\$	692,115	\$	893,714	\$	2,997	\$	1,521	\$	4,518	\$	105,708	\$	707,343	\$	813,051	\$ 3	369,936	\$	-	\$	369,936
2036	\$ 2	13,875	\$ 914,155	\$ 1	1,128,030	\$	33,050	\$	157,576	\$	190,626	\$	180,825	\$	756,579	\$	937,404	\$	2,995	\$	1,636	\$	4,631	\$	96,767	\$	773,198	\$	869,965	\$ 3	390,979	\$	-	\$	390,979
2037	\$ 19	99,773	\$ 983,580	\$ 1	1,183,353	\$	30,798	\$	169,160	\$	199,958	\$	168,975	\$	814,420	\$	983,395	\$	3,070	\$	1,677	\$	4,747	\$	98,637	\$	832,226	\$	930,863	\$ 4	404,956	\$	-	\$	404,956
2038	\$ 18	86,638	\$ 1,050,256	\$ 1	1,236,894	\$	28,812	\$	180,161	\$	208,973	\$	157,826	\$	870,095	\$	1,027,921	\$	2,985	\$	1,794	\$	4,779	\$	106,903	\$	889,120	\$	996,023	\$ 4	415,023	\$	-	\$	415,023
2039	\$ 17	70,891	\$ 1,115,950	\$ 1	1,286,841	\$	26,606	\$	190,849	\$	217,455	\$	144,285	\$	925,101	\$	1,069,386	\$	3,060	\$	1,838	\$	4,898	\$	120,485	\$	945,260	\$	1,065,745	\$ 4	435,477	\$	-	\$	435,477
2040	\$ 16	68,281	\$ 1,189,822	\$ 1	1,358,103	\$	25,964	\$	203,396	\$	229,360	\$	142,317	\$	986,426	\$	1,128,743	\$	3,137	\$	1,883	\$	5,020	\$	132,503	\$ 1	,007,844	\$	1,140,347	\$ 4	446,296	\$	-	\$	446,296
2041	\$ 15	57,766	\$ 1,252,567	\$ 1	1,410,333	\$	24,272	\$	213,806	\$	238,078	\$	133,494	\$	1,038,761	\$	1,172,255	\$	3,042	\$	2,104	\$	5,146	\$	158,734	\$ 1	,061,437	\$	1,220,171	\$ 4	457,386	\$	-	\$	457,386
2042	\$ 13	37,986	\$ 1,318,620	\$ 1	1,456,606	\$	21,150	\$	224,648	\$	245,798	\$	116,836	\$	1,093,972	\$	1,210,808	\$	3,118	\$	2,157	\$	5,275	\$	187,789	\$ 1	,117,794	\$	1,305,583	\$ 4	468,752	\$	-	\$	468,752
2043	\$ 1	19,735	\$ 1,401,966	\$ 1	1,521,701	\$	18,337	\$	238,523	\$	256,860	\$	101,398	\$	1,163,443	\$	1,264,841	\$	3,105	\$	2,302	\$	5,407	\$	208,188	\$ 1	,188,786	\$	1,396,974	\$ 4	493,661	\$	-	\$	493,661
2044	\$ 10	02,810	\$ 1,461,382	\$ 1	1,564,192	\$	15,651	\$	248,539	\$	264,190	\$	87,159	\$	1,212,843	\$	1,300,002	\$	3,089	\$	2,453	\$	5,542	\$	255,447	\$ 1	,239,315	\$	1,494,762	\$ 5	505,932	\$	-	\$	505,932
2045	\$	75,406	\$ 1,534,592	\$ 1	1,609,998	\$	11,446	\$	260,314	\$	271,760	\$	63,960	\$	1,274,278	\$	1,338,238	\$	3,070	\$	2,611	\$	5,681	\$	297,270	\$ 1	,302,125	\$	1,599,395	\$ 5	523,636	\$	-	\$	523,636
2046	\$ 5	56,450	\$ 1,619,363	\$ 1	1,675,813	\$	8,457	\$	274,158	\$	282,615	\$	47,993	\$	1,345,205	\$	1,393,198	\$	3,048	\$	2,881	\$	5,929	\$	336,627	\$ 1	,374,726	\$	1,711,353	\$ 5	558,615	\$	-	\$	558,615
2047	\$ 4	43,693	\$ 1,688,948	\$ 1	1,732,641	\$	6,452	\$	285,701	\$	292,153	\$	37,241	\$	1,403,247	\$	1,440,488	\$	3,124	\$	2,953	\$	6,077	\$	397,158	\$ 1	,433,990	\$	1,831,148	\$ 5	580,830	\$	-	\$	580,830
2048	\$ 3	33,111	\$ 1,768,362	\$ 1	1,801,473	\$	4,798	\$	298,895	\$	303,693	\$	28,313	\$	1,469,467	\$	1,497,780	\$	3,099	\$	3,130	\$	6,229	\$	457,630	\$ 1	,501,698	\$	1,959,328	\$ 6	615,382	\$	-	\$	615,382
2049	\$ 2	24,622	\$ 1,843,118	\$ 1	1,867,740	\$	3,456	\$	311,245	\$	314,701	\$	21,166	\$	1,531,873	\$	1,553,039	\$	3,176	\$	3,209	\$	6,385	\$	531,062	\$ 1	,565,419	\$	2,096,481	\$ 6	633,421	\$	-	\$	633,421
2050	\$	16,644	\$ 1,914,502	\$ 1	1,931,146	\$	2,212	\$	323,025	\$	325,237	\$	14,432	\$	1,591,477	\$	1,605,909	\$	3,038	\$	3,507	\$	6,545	\$	616,734	\$ 1	,626,501	\$	2,243,235	\$ 8	859,005	\$	-	\$	859,005
2051	\$	11,762	\$ 1,983,189	\$ 1	1,994,951	\$	1,515	\$	334,606	\$	336,121	\$	10,247	\$	1,648,583	\$	1,658,830	\$	3,003	\$	3,825	\$	6,828	\$	715,205	\$ 1	,685,056	\$	2,400,261	\$ 8	886,367	\$	-	\$	886,367
2052	\$	7,630	\$ 2,043,707	\$ 2	2,051,337	\$	976	\$	344,997	\$	345,973	\$	6,654	\$	1,698,710	\$	1,705,364	\$	3,078	\$	3,921	\$	6,999	\$	832,007	\$ 1	,736,272	\$	2,568,279	\$ 9	927,622	\$	-	\$	927,622
2053	\$	5,903	\$ 2,122,831	\$ 2	2,128,734	\$	730	\$	358,475	\$	359,205	\$	5,173	\$	1,764,356	\$	1,769,529	\$	3,038	\$	4,136	\$	7,174	\$	944,626	\$ 1	,803,433	\$	2,748,059	\$ 9	957,702	\$	-	\$	957,702
2054	\$	3,381	\$ 2,187,272	\$ 2	2,190,653	\$	423	\$	369,408	\$	369,831	\$	2,958	\$	1,817,864	\$	1,820,822	\$	2,994	\$	4,359	\$	7,353	\$	1,082,199	\$ 1	,858,224	\$	2,940,423	\$ 2,	175,768	\$	-	\$ 2	,175,768
2055	\$	1,633	\$ 2,260,105	\$ 2	2,261,738	\$	208	\$	381,772	\$	381,980	\$	1,425	\$	1,878,333	\$	1,879,758	\$	3,069	\$	4,468	\$	7,537	\$	1,226,254	\$ 1	,919,999	\$	3,146,253	\$ 2,4	482,848	\$	-	\$ 2	,482,848
2056	\$	1,264	\$ 2,336,321	\$ 2	2,337,585	\$	155	\$	394,856	\$	395,011	\$	1,109	\$	1,941,465	\$	1,942,574	\$	3,020	\$	4,841	\$	7,861	\$	1,381,736	\$ 1	,984,755	\$	3,366,491	\$ 2,5	546,495	\$	-	\$ 2	,546,495
2057	\$	539	\$ 2,421,870	\$ 2	2,422,409	\$	68	\$	409,328	\$	409,396	\$	471	\$	2,012,542	\$	2,013,013	\$	2,967	\$	5,091	\$	8,058	\$	1,544,656	\$ 2	2,057,489	\$	3,602,145	\$ 3,0	070,405	\$	-	\$ 3	,070,405
2058	\$	417	\$ 2,503,173	\$ 2	2,503,590	\$	51	\$	422,986	\$	423,037	\$	366	\$	2,080,187	\$	2,080,553	\$	2,909	\$	5,350	\$	8,259	\$	1,727,562	\$ 2	,126,733	\$	3,854,295	\$ 3,3	301,321	\$	-	\$ 3	,301,321
2059	\$	-	\$ 2,598,473	\$ 2	2,598,473	\$	-	\$	438,769	\$	438,769	\$	-	\$	2,159,704	\$	2,159,704	\$	2,982	\$	5,483	\$	8,465	\$	1,916,138	\$ 2	2,207,958	\$	4,124,096	\$ 3,7	753,490	\$	-	\$ 3.	,753,490
2060	\$	-	\$ 2,695,846	\$ 2	2,695,846	\$	-	\$	454,932	\$	454,932	\$	-	\$	2,240,914	\$	2,240,914	\$	2,918	\$	5,908	\$	8,826	\$	2,121,582	\$ 2	2,291,201	\$	4,412,783	\$ 4,4	494,348	\$	-	\$ 4	,494,348
2061	\$	-	\$ 2,799,967	\$ 2	2,799,967	\$	-	\$	472,141	\$	472,141	\$	-	\$	2,327,826		2,327,826	\$	2,849	\$	6,198	\$	9,047	\$	2,341,554	\$ 2	2,380,124	\$	4,721,678	\$ 4.6	609,458	\$	-	\$ 4	,609,458
	-		,,		,,	_		7	,	-	,	_		-	, ,, ,0	~	, , , ,	-	_,0	-	2,.30	-	-,	-	,,		,,	-	, = .,	÷ .,,	,			Ŧ '	, . ,

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

Actuarial Information to Include in the Financial Statement for the June 30, 2021 Measurement Date

Projection of Pension Plan's Fiduciary Net Position



		Actu	uaria	I Accrued Liability (BO	Υ)		Closed Group Asset Projection  Projected EEC Projected ED Contrib + Projected Admin													
Fiscal Year	Cui	rrent Members		Future Members		Total	Fid	uciary Net Position (BOY)	Funded Ratio (BOY)		Projected EEC Contributions (MOY)	Pr	rojected ER Contrib + Premium Tax (MOY)	Projected BP (MOY)	Projected Admin Expenses (MOY)	Projected Investment Earnings				
2021	\$	21,162,316	\$	- \$	5	21,162,316	\$	2,479,918	11.72%	\$	106,529	\$	584,179 \$	875,827	\$ 2,969	\$ 95,472				
2022	\$	21,750,779	\$	- \$	6	21,750,779	\$	2,387,302	10.98%	\$	104,538	\$	562,908 \$	873,952	\$ 2,772	\$ 91,348				
2023	\$	22,357,081	\$	42,097 \$	5	22,399,178	\$	2,269,372	10.15%	\$	102,411	\$	553,286 \$	878,526	\$ 2,786	\$ 86,307				
2024	\$	22,974,868	\$	129,247 \$	5	23,104,115	\$	2,130,063	9.27%	\$	98,864	\$	555,186 \$	896,353	\$ 2,741	\$ 80,350				
2025	\$	23,582,368	\$	261,578 \$	5	23,843,946	\$	1,965,370	8.33%	\$	93,563	\$	543,916 \$	928,067	\$ 2,810	\$ 72,804				
2026	\$	24,153,707	\$	451,377 \$	5	24,605,084	\$	1,744,776	7.22%	\$	89,388	\$	528,926 \$	948,621	\$ 2,820	\$ 63,194				
2027	\$	24,705,553	\$	707,478 \$	5	25,413,031	\$	1,474,844	5.97%	\$	86,905	\$	524,614 \$	958,694	\$ 2,829	\$ 52,062				
2028	\$	25,258,721	\$	1,023,423 \$	5	26,282,144	\$	1,176,901	4.66%	\$	83,505	\$	528,580 \$	980,215	\$ 2,900	\$ 39,728				
2029	\$	25,797,145	\$	1,392,839 \$	5	27,189,984	\$	845,599	3.28%	\$	75,250	\$	529,710 \$	1,038,852	\$ 2,908	\$ 25,174				
2030	\$	26,249,968	\$	1,812,485 \$	5	28,062,453	\$	433,973	1.65%	\$	66,855	\$	500,139 \$	1,091,517	\$ 2,848	\$ 6,915				
2031	\$	26,616,429	\$	2,324,326 \$	5	28,940,755	\$	-	0.00%	\$	61,631	\$	492,113 \$	1,121,688	\$ 2,919	\$ -				
2032	\$	26,935,507	\$	2,910,781 \$	5	29,846,288	\$	-	0.00%	\$	55,197	\$	486,842 \$	1,167,297	\$ 2,922	\$ -				
2033	\$	27,182,121	\$	3,567,925 \$	\$	30,750,046	\$	-	0.00%	\$	47,926	\$	480,220 \$	1,214,114	\$ 2,924	\$ -				
2034	\$	27,346,114	\$	4,299,579 \$	5	31,645,693	\$	-	0.00%	\$	42,140	\$	470,578 \$	1,247,730	\$ 2,997	\$ -				
2035	\$	27,445,243	\$	5,121,976 \$	5	32,567,219	\$	-	0.00%	\$	37,574	\$	475,644 \$	1,273,246	\$ 2,997	\$ -				
2036	\$	27,492,572	\$	6,025,491 \$	5	33,518,063	\$	-	0.00%	\$	33,705	\$	487,746 \$	1,289,745	\$ 2,995	\$ -				
2037	\$	27,499,418	\$	7,023,694 \$	6	34,523,112	\$		0.00%	\$	31,408	\$	503,593 \$	1,295,852	\$ 3,070	\$ -				
2038	\$	27,485,644	\$	8,116,761 \$	5	35,602,405	\$		0.00%	\$	29,383	\$	521,926 \$	1,300,601	\$ 2,985	\$ -				
2039	\$	27,452,815	\$	9,304,933 \$	6	36,757,748	\$	_	0.00%	\$	27,133	\$	555,962 \$	1,304,312		\$ -				
2040	\$	27,398,512		10,589,285		37,987,797	\$	_	0.00%	\$	26,478			1,293,319						
2041	\$	27,350,533		11,990,423		39,340,956	\$	_	0.00%	\$	24,753			1,294,755						
2042	\$	27,288,235		13,490,927 \$		40,779,162	\$	_	0.00%	\$	21,569		656.541 \$	1,305,797						
2043	\$	27,191,613		15,082,813		42,274,426	\$	_	0.00%	\$	18,700		,	1,311,806		•				
2044	\$	27,066,017		16,783,382 \$		43,849,399	\$		0.00%	\$	15,961			1,318,213						
2045	\$	26.911.261		18,556,272 \$		45,467,533	\$	_	0.00%	\$	11.673			1,337,572						
2046	\$	26,702,073		20,398,947 \$		47,101,020	\$	_	0.00%	\$	8,624		,	1,342,836						
2047	\$	26,459,435		22,327,849 \$		48,787,284	\$		0.00%	\$	6,580			1,341,067						
2048	\$	26,195,628		24,324,076 \$		50,519,704	\$	_	0.00%	\$	4,893		1,073,012 \$	1,333,571						
2049	\$	25,917,908		26,403,100 \$		52,321,008	\$		0.00%	\$	3,524		1,164,483 \$	1,324,509						
2050	\$	25,629,492		28,562,536 \$		54,192,028	\$		0.00%	\$	2,256			1,311,380						
2051	\$	25.334.631		30,786,636 \$		56,121,267	\$	166.816	0.66%	\$	1.545			1,292,740						
2052	\$	25,041,907		33,063,956 \$		58,105,863	\$	486,949	1.94%	\$	995		, ,	1,271,730						
2052	\$	24,754,603		35,376,720 \$		60,131,323	\$	1,001,864	4.05%	\$	744			1,247,291						
2054	s s	24,478,934		37,755,573		62,234,507	\$	1,707,608	6.98%	\$	431	\$	3,257,967 \$	1,222,532						
2055	s S	24,214,865		40,165,295		64,380,160	\$	3,849,043	15.90%	\$ \$	212			1,196,240						
2056	э \$	23,965,228		40,165,295 \$		66,573,718	\$	6,562,718	27.38%	э \$	158			1,196,240						
2056	\$ \$	23,965,228		42,608,490 \$ 45,094,073 \$		68,828,147	\$	9,637,255	27.38% 40.61%	\$ \$	158			1,167,948						
2057	\$ \$	23,734,074		45,094,073 \$ 47,635,761 \$		71,157,693	\$	13,564,182	40.61% 57.67%	\$ \$	52			1,139,499						
	\$ \$									э \$	52									
2059	\$ \$	23,331,255		50,220,196 \$		73,551,451	\$	18,100,322	77.58%	\$ \$	-	\$	5,669,628 \$	1,080,537						
2060	*	23,162,569		52,868,090 \$		76,030,659	\$	23,501,268	101.46%		-		6,615,930 \$	1,050,411						
2061	\$	23,017,859	\$	55,588,191 \$	•	78,606,050	\$	30,114,081	130.83%	\$	-	\$	6,951,012 \$	1,020,052	\$ 2,849	\$ 1,321,963				

Actuarial Information to Include in the Financial Statements for the June 30, 2021 Measurement Date



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

				Calcu	ılat	ion of Single Equivaler	nt Ra	te		
Fiscal Year	"Fund	led" Portion of BP	"Unfui	nded" Portion of BP		PV of "Funded" BP	PV	of "Unfunded" BP	P	PV of BP Using a Single DR
2021	\$	875,827	\$	-	\$	858,819	\$	-	\$	863,923
2022	\$	873,952	\$	-	\$	824,020	\$	-	\$	838,799
2023	\$	878,526	\$	-	\$	796,473	\$	-	\$	820,42
2024	\$	896,353	\$	-	\$	781,380	\$	-	\$	814,47
2025	\$	928,067	\$	-	\$	777,910	\$	-	\$	820,52
2026	\$	948,621	\$	-	\$	764,556	\$	-	\$	816,049
2027	\$	958,694	\$	-	\$	742,956	\$	-	\$	802,44
2028	\$	980,215	\$	-	\$	730,418	\$	-	\$	798,310
2029	\$	-	\$	1,038,852	\$	-	\$	883,789	\$	823,223
2030	\$	-	\$	1,091,517	\$	-	\$	911,100	\$	841,60
2031	\$	-	\$	1,121,688	\$	-	\$	918,646	\$	841,51
2032	\$	-	\$	1,167,297	\$	-	\$	937,990	\$	852,09
2033	\$	-	\$	1,214,114	\$	-	\$	957,231	\$	862,33
2034	\$	_	\$	1,247,730	\$	-	\$	965,203	\$	862,28
2035	\$	-	\$	1,273,246	\$	-	\$	966,386	\$	856,16
2036	\$	-	\$	1,289,745	\$	-	\$	960,468	\$	843,84
2037	\$	_	\$	1,295,852	\$	<u>-</u>	\$	946,837	\$	824,94
2038	\$	-	\$	1,300,601	\$	<u>-</u>	\$	932,404	\$	805,61
2039	\$	-	\$	1,304,312	\$	<u>-</u>	\$	917,450	\$	786,10
2040	\$	_	\$	1,293,319	\$	<u>-</u>	\$	892,580	\$	758,43
2041	\$	_	\$	1,294,755	\$	_	\$	876,738	\$	738,77
2042	\$	_	\$	1,305,797	\$	_	\$	867,557	\$	724,95
2043	\$	_	\$	1,311,806	\$	_	\$	855,131	\$	708,63
2043	\$	_	\$	1,311,000	\$	_	\$	843,120	\$	692,86
2045	\$	_	\$	1,337,572	\$	- -	\$	839,386	\$	684,06
			\$			_	\$			
2046	\$	-		1,342,836	\$	-		826,814	\$	668,21
2047	\$	-	\$	1,341,067	\$	-	\$	810,170	\$	649,31
2048	\$	-	\$	1,333,571	\$	-	\$	790,464	\$	628,25
2049	\$	-	\$	1,324,509	\$	-	\$	770,303	\$	607,13
2050	\$	-	\$	1,311,380	\$	-	\$	748,300	\$	584,88
2051	\$	-	\$	1,292,740	\$	-	\$	723,767	\$	561,00
2052	\$	-	\$	1,271,730	\$	-	\$	698,592	\$	536,99
2053	\$	-	\$	1,247,291	\$	-	\$	672,259	\$	512,45
2054	\$	1,222,532	\$	-	\$	328,582	\$	-	\$	488,71
2055	\$	1,196,240	\$	-	\$		\$	-	\$	465,29
2056	\$	1,167,948	\$	-	\$	290,228	\$	-	\$	442,02
2057	\$	1,139,499	\$	-	\$	272,268	\$	-	\$	419,61
2058	\$	1,110,006	\$	-	\$	255,021	\$	-	\$	397,72
2059	\$	1,080,537	\$	-	\$		\$	-	\$	376,70
2060	\$	1,050,411	\$	-	\$	223,122	\$	-	\$	356,31
2061	\$	1,020,052	\$	-	\$	208,340	\$	-	\$	336,67