City of Clarksburg, West Virginia
Policemen's Pension and Relief Fund

GASB Statement Nos. 67 and 68 Plan Reporting and Accounting Schedules

June 30, 2017

GRS Retirement Consulting

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January 19, 2018

Ms. Kimberly A. Karakiozis, Finance Director
City of Clarksburg
222 West Main Street
Clarksburg, WV 26301

Sgt. Richard A. White
Pension Board Secretary
City of Clarksburg Policemen's Pension and Relief Fund

Dear Ms. Karakiozis and Sgt. White:

This report provides accounting and financial information that is intended to comply with the Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 for the City of Clarksburg, West Virginia Policemen's Pension and Relief Fund ("Plan"). These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

GASB Statement No. 67 is the accounting standard that applies to the stand-alone financial reports issued by retirement systems, on behalf of fiscal years beginning after June 15, 2013. GASB Statement No. 68 establishes accounting and financial reporting for state and local government employers who provide their employees (including former employees) pension benefits through a trust, and applies to fiscal years beginning after June 15, 2014.

This report contains GASB Statement Nos. 67 and 68 reporting information applicable to the plan year ending June 30, 2017, and the sponsor's fiscal year ending June 30, 2017.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement Nos. 67 and 68. The calculation of the Plan's liability for this report may not be applicable for funding purposes of the Plan. A calculation of the Plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the City of Clarksburg, West Virginia Policemen's Pension and Relief Fund ("Plan") only in its entirety and only with the permission of the Plan. GRS is not responsible for unauthorized use of this report.

West Virginia Code §8-22-20 (c)(4), requires a review of the actuarial assumptions and methods at least once every five years and that the Actuary shall provide a report to the oversight board with recommendations on any changes to the actuarial process. Consequently, an experience review was performed for the period July 1, 2009, through June 30, 2014. The actuarial assumptions and methods were recommended by the Actuary in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014*, and approved by the Municipal Pensions Oversight Board, and were first applied beginning with the actuarial valuation for the plan year ending June 30, 2016.

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Our actuarial valuation and projections assume the sponsor will make the contributions required by state statute. To the extent the sponsor does not make the statutory required contribution the results contained in this report could be significantly different.

This report is based upon information, furnished to us by the Plan, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not audited.

To the best of our knowledge, the information contained in this report is accurate and fairly represents the actuarial position of the City of Clarksburg, West Virginia Policemen's Pension and Relief Fund for GASB Statement Nos. 67 and 68 accounting purposes. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Alex Rivera and Lance J. Weiss are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Alex Rivera

Alex Rivera, FSA, EA, MAAA, FCA

Lance J. Weiss

Lance J. Weiss, EA, MAAA, FCA

Auditor's Note – This information is presented in draft form for review by the Plan's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the Plan's financial statements.

This actuarial valuation report assumes the following:

- The Plan Sponsor first adopted GASB Statement No. 68 effective for the fiscal year end June 30, 2015.
- The Net Pension Liability as of the first year of adoption, i.e. fiscal year end June 30, 2015, was based on a projection of actuarial liabilities from July 1, 2014, to June 30, 2015, and the market value of assets as of June 30, 2015.
- The Pension Expense for fiscal year end June 30, 2015, recognizes deferred inflows and outflows for the fiscal year end June 30, 2015.
- The Pension Expense for fiscal years after June 30, 2015, recognizes deferred inflows and outflows beginning with the fiscal year end June 30, 2015.

The Plan Sponsor may need to adjust the results in this report if a different policy is implemented. Examples of different policies include:

- Adopting GASB Statement No. 68 effective for fiscal years ending prior to June 30, 2015.
- Using an earlier measurement date, such as using a measurement date of June 30, 2014, for purposes of completing financial reporting for the fiscal year end June 30, 2015.
- Recognizing deferred inflows and outflows prior to the initial year of adoption, such as recognizing deferred inflows and outflows starting with the fiscal year end June 30, 2014.

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SECTION A

EXECUTIVE SUMMARY

Executive Summary
as of June 30, 2017

		2017
Actuarial Valuation Date		June 30, 2016
Pension Plan's Fiscal Year Ending Date (Measurement Date & Reporting Date)		June 30, 2017
Membership[a]		
Number of		
- Retirees and Beneficiaries		47
- Inactive, Nonretired Members		2
- Active Members		44
- Total		93
Expected Payroll	$	2,085,929
Net Pension Liability		
Total Pension Liability[b]	$	29,365,377
Plan Fiduciary Net Position		6,888,363
Net Pension Liability	$	22,477,014
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		23.46%
Net Pension Liability as a Percentage of Covered Payroll		1,077.55%
Development of the Single Discount Rate		
Single Discount Beginning of Year		5.0000%
Single Discount Rate End of Year		5.0000%
Long-Term Expected Rate of Return		5.0000%
Long-Term Municipal Bond Rate Beginning of Year[c]		2.8500%
Long-Term Municipal Bond Rate End of Year[c]		3.5600%
Year Plan is projected to be fully funded		2043
Year assets are expected to be depleted for closed plan		N/A
GASB No. 68 Pension Expense	$	2,211,570

Deferred Outflows and Deferred Inflows of Resources to be recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred (Inflows) of Resources
Difference between expected and actual non-investment experience	$ -	$ (1,167,767)
Changes in assumptions	2,066,374	-
Net difference between projected and actual earnings on pension plan investments	246,877	(301,410)
Total	$ 2,313,251	$ (1,469,178)

[a] *Census data measured as of June 30, 2016.*

[b] *Total pension liability projected from July 1, 2016, to June 30, 2017, based on the results of July 1, 2016, actuarial valuation.*

[c] *Based on the 20-Year Municipal GO Index of mixed maturity general obligation municipal bonds as of the weekly rate closest to but not later than the Measurement Date.*

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain additional non-actuarial required information, such as notes regarding accounting policies and investments, is not included in this report and the retirement system and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements, are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents additions, such as contributions and investment income, and deductions, such as benefit payments and expenses and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires, in the notes of the employer's financial statements, a disclosure of the total pension expense, the pension plan's liabilities and assets and deferred outflows and inflows of resources related to pensions.

Both GASB Statements, No. 67 and 68, require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of additional disclosure items should include:

- A description of benefits provided by the plan;
- The type of employees and number of members covered by the pension plan;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The pension plan's investment policies;
- The pension plan's fiduciary net position, net pension liability and the pension plan's fiduciary net position as a percentage of the total pension liability;
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- Significant assumptions and methods used to calculate the total pension liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- The composition of the pension plan's board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

Required Supplementary Information

Statement No. 67 requires a 10-year fiscal history of:

- Sources of changes in the net pension liability;
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability and the net pension liability as a percent of covered-employee payroll;
- Comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy; and
- The annual money-weighted rate of return on pension plan investments for each year.

These tables may be built prospectively as the information becomes available.

Measurement of the Net Pension Liability

The net pension liability is to be measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In traditional actuarial terms, this will be the accrued liability less the market value of assets.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least once every two years. If the actuarial valuation is not calculated as of the plan's fiscal year end, the total pension liability is required to be rolled forward from the actuarial valuation date to the pension plan's fiscal year end.

The total pension liability shown in this report is based on an actuarial valuation performed as of July 1, 2016, and projected to the measurement date of June 30, 2017.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be available and sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 5.0000%, the municipal bond rate is 3.5600% (based on the weekly rate closest to but not later than the measurement date of the "20-Year Municipal GO Index" as published by Fidelity), and the resulting single discount rate is 5.0000%.

Effective Date and Transition

GASB Statement No. 67 is effective for a pension plan's fiscal years beginning after June 15, 2013, and GASB Statement No. 68 is effective for a pension plan's fiscal years beginning after June 15, 2014; however, earlier application is encouraged by the GASB.

Assumption Changes

The actuarial assumptions and methods were recommended by the Actuary, in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014,* approved by the Municipal Pension Oversight Board and became effective beginning with the actuarial valuation applicable to plan year end June 30, 2016. Since the last valuation as of June 30, 2016, and for purposes of the accounting actuarial valuation, the blended interest rate used to discount liabilities did not change from 5.0000%. The actuarial assumptions are disclosed in Section G of the report.

SECTION B

FINANCIAL STATEMENTS

Statement of Fiduciary Net Position
as of June 30, 2017

		2017
Assets		
Cash and Deposits	$	104,569
Receivables		
Contributions		-
Investment Income		-
Total Receivables	**$**	**-**
Investment		
Government Securities	$	-
Corporate Bonds		2,074,697
Corporate Stocks		4,192,058
Alternative Investments		517,039
Other		-
Total Investments	**$**	**6,783,794**
Total Assets	**$**	**6,888,363**
Liabilities		
Payables		-
Total Liabilities	**$**	**-**
Net Position Restricted for Pensions	**$**	**6,888,363**

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2017

		2017
Additions		
Contributions		
Employer	$	1,337,055
State		421,449
Employee		168,474
Receivable Employer		-
Receivable State		-
Receivable Employee		-
Other		-
Total Contributions	**$**	**1,926,978**
Net investment gain (loss) from		
Net Appreciation (Depreciation)	$	593,692
Net Realized Gain (Loss) on Sale or Exchange		59,563
Interest and Dividends		59,192
Other income		368
Investment Expense		(43,286)
Receivable Investment Income		-
Payable Investment Expenses		-
Net Investment Income	**$**	**669,529**
Other Revenue	$	-
Total Additions	**$**	**2,596,507**
Deductions		
Benefit payments	$	1,149,829
Refunds		42,610
Pension Plan Administrative Expense		7,500
Other		-
Payable Benefits and Withdrawals		-
Payable Administrative Expenses		-
Total Deductions	**$**	**1,199,939**
Net Increase in Net Position	$	1,396,568
Net Position Restricted for Pensions		
Beginning of Year	**$**	**5,491,795**
End of Year	**$**	**6,888,363**

Long-Term Expected Return on Plan Assets

The investment policy covering the allocation of invested assets for the City of Clarksburg, West Virginia Policemen's Pension and Relief Fund is established by the Board of Trustees and is subject to the limitations defined in West Virginia Code §8-22-22 and §8-22-22a.

GASB Statement Nos. 67 and 68 require the disclosure of certain information contained in the investment policy including the target asset allocation by major asset class and the long-term expected real rate of return by major asset class. This information is generally available from the investment consultant, investment manager or plan trustee.

Information on the target asset allocation and long-term real return by major asset class was not provided to the actuary.

The discount rate used by the actuary for the purpose of developing the statutory contribution requirement, including the statutory solvency requirement, is shown in the Actuarial Assumptions Section of this report. This same discount rate is also used by the actuary to determine the GASB Statement Nos. 67 and 68 single discount rate.

Money-Weighted Rate of Return

GASB Statement Nos. 67 and 68 also require the disclosure of the money weighted rate of return, net of investment expenses, using monthly data. This information was not provided to the actuary, but should be available from the investment consultant, investment manager or plan trustee.

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios Multiyear

Fiscal year ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total Pension Liability										
Service Cost	$ 940,194	$ 678,319	$ 618,071	$ 666,702						
Interest on the Total Pension Liability	1,404,357	1,370,741	1,338,559	1,332,234						
Benefit Changes	-	-	-	-						
Difference between Expected and Actual Experience	(1,132,945)	(192,337)	(345,859)	-						
Assumption Changes	-	3,317,951	-	-						
Benefit Payments	(1,149,829)	(1,160,463)	(1,126,094)	(1,059,430)						
Refunds	(42,610)	(47,953)	(84,055)	(91,247)						
Net Change in Total Pension Liability	19,167	3,966,258	400,622	848,259						
Total Pension Liability - Beginning	29,346,210	25,379,952	24,979,330	24,131,071						
Total Pension Liability - Ending (a)	$ 29,365,377	$ 29,346,210	$ 25,379,952	$ 24,979,330						
Plan Fiduciary Net Position										
Employer Contributions	$ 1,758,504	$ 1,333,490	$ 1,261,009	$ 1,189,034						
Employee Contributions	168,474	157,241	154,449	151,027						
Pension Plan Net Investment Income	669,529	(21,235)	133,494	632,587						
Benefit Payments	(1,149,829)	(1,160,463)	(1,126,094)	(1,059,430)						
Refunds	(42,610)	(47,953)	(84,055)	(91,247)						
Pension Plan Administrative Expense	(7,500)	(7,750)	(7,500)	(7,500)						
Other	-	-	-	206						
Net Change in Plan Fiduciary Net Position	1,396,568	253,330	331,303	814,677						
Plan Fiduciary Net Position - Beginning	5,491,795	5,238,465	4,907,162	4,092,485						
Plan Fiduciary Net Position - Ending (b)	$ 6,888,363	$ 5,491,795	$ 5,238,465	$ 4,907,162						
Net Pension Liability - Ending (a) - (b)	22,477,014	23,854,415	20,141,487	20,072,168						
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	23.46 %	18.71 %	20.64 %	19.64 %						
Covered Employee Payroll	$ 2,085,929	$ 1,989,442	$ 1,808,232	$ 1,958,068						
Net Pension Liability as a Percentage of Covered Employee Payroll	1,077.55 %	1,199.05 %	1,113.88 %	1,025.10 %						

Notes to Schedule:

Schedules of Required Supplementary Information
Schedule of the Net Pension Liability Multiyear

Last 10 Fiscal Years (which may be built prospectively)

FY Ending June 30	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2008						
2009						
2010						
2011						
2012						
2013						
2014	$ 24,979,330	$ 4,907,162	$ 20,072,168	19.64%	$ 1,958,068	1025.10%
2015	$ 25,379,952	$ 5,238,465	$ 20,141,487	20.64%	$ 1,808,232	1113.88%
2016	$ 29,346,210	$ 5,491,795	$ 23,854,415	18.71%	$ 1,989,442	1199.05%
2017	$ 29,365,377	$ 6,888,363	$ 22,477,014	23.46%	$ 2,085,929	1077.55%

Schedule of Contributions Multiyear

Fiscal Year Ended	Actuarially Determined Contribution (a)	Employer Contribution (b)	State Contribution (c)	Percentage Contributed [(b)+(c)]/(a)	Covered Payroll (f)	Actual Contribution as a % of Covered Payroll [(b)+(c)]/(f)
6/30/2013	$ 1,517,921	$ 737,643	$ 525,982	83%	$ 2,017,329	63%
6/30/2014	$ 1,419,464	$ 796,654	$ 392,380	84%	$ 1,958,068	61%
6/30/2015	$ 1,392,690	$ 860,386	$ 400,623	91%	$ 1,808,232	70%
6/30/2016	$ 1,802,392	$ 929,217	$ 404,273	74%	$ 1,989,442	67%
6/30/2017	$ 1,864,693	$ 1,337,055	$ 421,449	94%	$ 2,085,929	84%

Notes to Schedule of Contributions

The information requested in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Measurement Date	June 30, 2017, measurement date based on actuarial liabilities as of July 1, 2016
Actuarial Cost Method	Entry Age Normal, Level-Percentage-of-Pay
Actuarial Value of Assets	Market value used for GASB Statement Nos. 67 and 68 reporting
Contribution Policy and Amortization Method	The sponsor finances benefits using the Alternative funding policy as defined in state statute. Sponsor contributions are equal to 107 percent of the prior year contribution. The plan also receives state contributions based on an allocation of premium tax that depends on the number of active and retired members. This funding policy does not directly amortize the unfunded actuarial liability. However, projected sponsor, state and member contributions along with projected investment earnings are expected to fully fund the projected actuarial liability for current plan members by 2043.
Actuarial Assumptions:	
Investment Rate of Return	5.0000% per year
GASB 67/68 Discount Rate	5.0000% per year at June 30, 2017, and 5.0000% at June 30, 2016
Projected Salary Increases	Service-based increases: 20.00% in year 1, 6.50% in year 2, reducing over years of service down to 1.25% in years 30-34. 0% increases for service over 34
Cost of Living Increases	2.75% on first $15,000 of Annual Benefit and on the accumulated supplemental pension amounts for prior years

SECTION D

NOTES TO FINANCIAL STATEMENTS

Single Discount Rate

A GASB Statement Nos. 67 and 68 single discount rate of 5.0000% was used to measure the total pension liability as of June 30, 2017. This single discount rate was based on the expected rate of return on pension plan investments of 5.0000%, and the municipal bond rate of 3.5600%. The projection of cash flows used to determine this single discount rate assumed that the Plan sponsor would make the statutory required contribution as defined by the funding policy. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make projected future benefit payments, on behalf of current plan members for all future plan years. Therefore, the single discount rate of 5.0000% was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 5.0000%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

1% Decrease 4.0000%	Current Single Discount Rate Assumption 5.0000%	1% Increase 6.0000%
$27,116,749	$22,477,014	$18,773,722

SECTION E

GASB STATEMENT NO. 68 PENSION EXPENSE

Net Pension Liability
for Fiscal Year ending June 30, 2017

A. Total Pension Liability		
1. Service Cost	$	940,194
2. Interest on the Total Pension Liability		1,404,357
3. Changes of benefit terms		-
4. Difference between expected and actual experience of the Total Pension Liability		(1,132,945)
5. Changes of assumptions		-
6. Benefit payments, including refunds of employee contributions		(1,192,439)
7. Net change in total pension liability	$	19,167
8. Total pension liability – beginning (July 1, 2016)		29,346,210
9. Total pension liability – ending (June 30, 2017)	**$**	**29,365,377**
B. Plan Fiduciary Net Position		
1. Contributions – employer	$	1,758,504
2. Contributions – employee		168,474
3. Net investment income		669,529
4. Benefit payments, including refunds of employee contributions		(1,192,439)
5. Pension Plan Administrative Expense		(7,500)
6. Other		-
7. Net change in plan fiduciary net position	$	1,396,568
8. Plan fiduciary net position – beginning (July 1, 2016)		5,491,795
9. Plan fiduciary net position – ending (June 30, 2017)	**$**	**6,888,363**
C. Net pension liability as of June 30, 2017	**$**	**22,477,014**
D. Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		**23.46%**
E. Covered-employee Payroll	**$**	**2,085,929**
F. Net Pension Liability as a Percentage of Covered Employee Payroll		**1,077.55%**

Pension Expense
(for Fiscal Year ending June 30, 2017)

A. Expense

1. Service Cost	$	940,194
2. Interest on the Total Pension Liability		1,404,357
3. Current-Period Benefit Changes		-
4. Employee Contributions (made negative for addition here)		(168,474)
5. Projected Earnings on Plan Investments (made negative for addition here)		(292,766)
6. Pension Plan Administrative Expense		7,500
7. Other Changes in Plan Fiduciary Net Position		-
8. Recognition of Outflow/(Inflow) due to Non-investment Experience		(321,425)
9. Recognition of Outflow/(Inflow) due to Assumption Changes		625,788
10. Recognition of Outflow/(Inflow) due to Investment Experience		16,396
11. Total Pension Expense	**$**	**2,211,570**

B. Reconciliation of Net Pension Liability

1. Net Pension Liability beginning of year	**$**	**23,854,415**
2. Pension Expense		2,211,570
3. Employer Contributions		(1,758,504)
4. Change in Outflow/(Inflow) due to Non-investment Experience		(811,520)
5. Change in Outflow/(Inflow) due to Assumption Changes		(625,788)
6. Change in Outflow/(Inflow) due to Investment Experience		(393,159)
7. Net Pension Liability End of year	**$**	**22,477,014**

Schedule of Outflows and Inflows of Resources

	Non-Investment Experience				Assumption Changes				Investment Experience			
Plan Year Beginning	**7/1/2014**	**7/1/2015**	**7/1/2016**		**7/1/2014**	**7/1/2015**	**7/1/2016**		**7/1/2014**	**7/1/2015**	**7/1/2016**	
(Gain)/Loss	$ (345,859)	$ (192,337)	$ (1,132,945)		$ -	$ 3,317,951	$ -		$ 141,840	$ 316,901	$ (376,763)	
Amortization Factor	4.748459	5.302034	5.336196		4.748459	5.302034	5.336196		5.000000	5.000000	5.000000	
Amortization Amount	$ (72,836)	$ (36,276)	$ (212,313)		$ -	$ 625,788	$ -		$ 28,368	$ 63,380	$ (75,353)	
Amortization for Plan Year End				**Total**				**Total**				**Total**
6/30/2015	$ (72,836)			(72,836)	$ -			-	$ 28,368			28,368
6/30/2016	(72,836)	$ (36,276)		(109,112)	-	$ 625,788		625,788	28,368	$ 63,380		91,748
6/30/2017	**(72,836)**	**(36,276)**	**$ (212,313)**	**(321,425)**	**-**	**625,788**	**$ -**	**625,788**	**28,368**	**63,380**	**$ (75,353)**	**16,396**
6/30/2018	(72,836)	(36,276)	(212,313)	(321,425)	-	625,788	-	625,788	28,368	63,380	(75,353)	16,396
6/30/2019	(54,515)	(36,276)	(212,313)	(303,104)	-	625,788	-	625,788	28,368	63,380	(75,353)	16,396
6/30/2020	-	(36,276)	(212,313)	(248,589)	-	625,788	-	625,788	-	63,380	(75,353)	(11,972)
6/30/2021	-	(10,957)	(212,313)	(223,270)	-	189,009	-	189,009	-	-	(75,353)	(75,353)
6/30/2022	-	-	(71,379)	(71,379)	-	-	-	-	-	-	-	-
6/30/2023	-	-	-	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-	-	-	-
6/30/2025	-	-	-	-	-	-	-	-	-	-	-	-
6/30/2026	-	-	-	-	-	-	-	-	-	-	-	-
Total	**$ (345,859)**	**$ (192,337)**	**$ (1,132,945)**		**$ -**	**$ 3,317,951**	**$ -**		**$ 141,840**	**$ 316,901**	**$ (376,763)**	

Deferred Outflows/(Inflows) Recognized in Pension Expense for Current Plan Year End	**Outflows**	**(Inflows)**	**Net**	**Outflows**	**(Inflows)**	**Net**	**Outflows**	**(Inflows)**	**Net**
6/30/2017	$ -	$ (321,425)	$ (321,425)	$ 625,788	$ -	$ 625,788	$ 91,748	$ (75,353)	$ 16,396
Deferred Outflows/(Inflows) Recognized in Pension Expense for Future Plan Years Ending									
6/30/2018	$ -	$ (321,425)	$ (321,425)	$ 625,788	$ -	$ 625,788	$ 91,748	$ (75,353)	$ 16,396
6/30/2019	-	(303,104)	(303,104)	625,788	-	625,788	91,748	(75,353)	16,396
6/30/2020	-	(248,589)	(248,589)	625,788	-	625,788	63,380	(75,353)	(11,972)
6/30/2021	-	(223,270)	(223,270)	189,009	-	189,009	-	(75,353)	(75,353)
6/30/2022	-	(71,379)	(71,379)	-	-	-	-	-	-
6/30/2023	-	-	-	-	-	-	-	-	-
Total	$ -	$ (1,167,767)	$ (1,167,767)	$ 2,066,374	$ -	$ 2,066,374	$ 246,877	$ (301,410)	$ (54,534)
Change In Deferred Outflows/(Inflows) Recognized in Liability and Assets for Current Plan Year End									
6/30/2017			$ (811,520)			$ (625,788)			$ (393,159)

SECTION F

SUMMARY OF BENEFITS

Employee Eligibility — All compensated employees of the Police Department hired before July 1, 2016, are eligible to participate in the Policemen's Pension and Relief Fund.

Average Annual Compensation — The average of any three twelve-consecutive-month periods of employment which produces the highest average annual compensation.

Each twelve-consecutive-month annual compensation is limited to 120% of the *Average Adjusted Salary* received by the member in the two consecutive twelve-consecutive-month periods immediately preceding the twelve-consecutive-month period used in determining benefits.

The *Average Adjusted Salary* is base salary (exclusive of all overtime and other pay) of the year used in determining benefits multiplied by the ratio of total salary (includes all overtime and other pay) to base salary from the respective preceding twelve-consecutive-month period.

Determining Years of Service Credit (Credited Service**)** — The number of years that the member has contributed to the employees retirement and benefit fund.

Prior Military Service — A city may provide that members who have been honorably discharged from the military shall receive up to two years prior service credit for military service prior to their employment with the city.

Current Military Service — Any current member who has been on qualified military service in the armed forces of the United States with an honorable discharge may, within six months from his or her date of discharge, be given credit for continuous service in the paid police or fire department.

Any member who has served in active duty with the armed forces of the United States, whether prior to or subsequent to becoming a member of a paid police or fire department, shall receive one additional percent for each year so served in active military duty, up to a maximum of four additional percent.

Absence from the service because of sickness or injury for a period of two years or less shall not be construed as time out of service.

Contributions — Participating employees contribute 7.0% of compensation. Participating employees hired on or after January 1, 2010, contribute 9.5% of pay. The municipality has elected to contribute the minimum employer contribution under the Alternative Method.

Normal Retirement — Members are eligible at the earlier of age 50 with 20 years of credited service or age 65.

Benefit Commencement — Annual retirement pension benefits commence upon retirement or upon the member attaining age fifty, whichever is later, payable in twelve monthly installments.

Accrued Benefit — The annual retirement benefit equals 60% of average annual compensation, not less than $6,000, plus an additional percentage of average annual compensation for service over 20 years equal to 2% for each year of service between 20 and 25 and 1% for each year of service between 25 and 30 years. Employees serving in the military are eligible for an additional 1% of average annual compensation for each year of military service up to four years. The maximum benefit is limited to 75% of average annual compensation. Benefits continue for life.

Disability Retirement — Members are eligible after earning five years of service. No service requirement if disability is service related.

The monthly disability benefit equals the greater of 60% of monthly salary at disability or $500. Employees serving in the military are eligible for an additional benefit of 1% of monthly salary at disability for each year of military service up to four years. Disability benefits, when aggregated with monthly state workers compensation benefits, shall not exceed 100% of the member's monthly compensation at the time of disability. Benefits continue for life or until recovery.

Death Benefits — Members are eligible after earning five years of service. No service requirement if death is service related. Retirees and terminated vested participants are also eligible.

The benefit is equal to 60% of the participant's benefit, but not less than $300 per month, payable to the spouse until death or remarriage. Other dependents (children, parents, brothers and sisters) are also eligible for death benefits. To each dependent child, twenty percent of the participant's benefit until the child attains eighteen or marries; to each dependent orphaned child, twenty-five percent of the participant's benefit until the child attains eighteen or marries; to each dependent parent, ten percent of the participant's benefit for life, and to each dependent brother or sister, the sum of fifty dollars per month (but a total not to exceed $100 per month) until such individual attains the age of eighteen years or marries.

In no case shall the payments to the surviving spouse and children be reduced below sixty-five percent of the total amount paid to all dependents.

Supplemental Pension Benefits — All retirees, surviving beneficiaries and disability pensioners are eligible for automatic cost-of-living benefits commencing on the first day of July following two years of retirement. The benefits equal the percentage increase in the Consumer Price Index, limited to 4% (2% for some disability retirees), multiplied by the sum of the allowable amount which is the first $15,000 of the total annual benefits paid and the accumulated supplemental pension amounts for prior years.

Termination Benefits — Any member who terminates employment prior to retirement will be entitled to a refund of contributions without interest.

Refunds — Any member who terminates from their department without receiving a retirement pension shall be refunded all deductions made from his salary, without interest. Any member who receives such a refund and subsequently wishes to reenter the department must repay to the pension fund all sums refunded with interest at the rate of eight percent annual.

SECTION G

ACTUARIAL VALUATION ASSUMPTIONS

Actuarial Valuation Assumptions

Investment return 7/1/2016 7/1/2017	 5.0000% 5.0000%
General Inflation	2.75%
Expected Salary Increase	General Inflation: 2.75% *plus* Wage Inflation: 1.00% *plus* Service Based Increase: Years of Service / Increase 1 — 20.00% 2 — 6.50% 3 — 3.50% 4 — 2.75% 5-9 — 2.50% 10-29 — 2.00% 30-34 — 1.25% after 34 years of service — 0.00%
Post-retirement COLA	2.75% on first $15,000 of Annual Benefit and on the accumulated supplemental pension amounts for prior years.
Increase in State Insurance Premium Tax Allocation	2.75% on and after year 1

Valuation Assumptions (continued)

Cost Method	Entry-Age Normal Level-Percentage-of-Pay The sponsor finances benefits using the Alternative funding policy as defined by state statute. This policy does not directly amortize the unfunded actuarial liability. The policy is projected to fully finance the closed group actuarial liability by 2043. 30 – Year Closed Level-Percentage-of-Pay Amortization for Actuarially Determined Contribution (from July 1, 2010). 24 years remaining as of July 1, 2016.
Asset Method	Market Value
Turnover	Sample Rates – Age / Rates 25 / 9% 35 / 4% 45 / 2% 50 / 0%
Retirement	Age / Rates 50 / 45% 51-55 / 30% 56-59 / 35% 60 / 100%

Valuation Assumptions (continued)

<table>
<tr><td>Mortality</td><td>Active:
RP-2014 Blue Collar Healthy Employee

Post-Retirement:
RP-2014 Blue Collar Healthy Annuitant

Disabled:
RP-2014 Blue Collar Healthy Annuitant set forward four years

Tables above incorporate generational mortality improvement using MP-2014 two-dimensional mortality improvement scales</td></tr>
<tr><td>Disability</td><td>Sample Rates –
<table><tr><th>Age</th><th>Rates[a]</th></tr><tr><td>30</td><td>0.22%</td></tr><tr><td>40</td><td>0.50%</td></tr><tr><td>50</td><td>0.79%</td></tr></table>
[a] Assumes 60% duty related and 40% non-duty related.</td></tr>
<tr><td>Percent Married</td><td>90%</td></tr>
<tr><td>Spouse Age</td><td>Females 3 years younger than males</td></tr>
</table>

Discount Rate

The following table outlines the factors used to determine the discount rate:

Funded Ratio as of Valuation Date[1]	Liquidity Ratio [2]	Equity Exposure	Projected Funded Ratio after 15 Years [1]	Discount Rate
60% or more	10	50% or more	70% or more	6.5000%
40% or more	8	40% or more	60% or more	6.0000%
30% or more	6	30% or more	50% or more	5.5000%
15% or more	4	n/a	40% or more	5.0000%
Less than 15%	n/a	n/a	15% or more	4.5000%
Less than 15%	n/a	n/a	Less than 15%	4.0000%

[1] Funded ratios based on a 6.0000% investment return assumption for plans using an actuarially sound policy (standard or optional) and a 5.5000% investment return assumption for other plans (alternative or conservation).

[2] Liquidity ratio equals assets as of the valuation date divided by expected benefit payments for the year.

As of June 30, 2016 *	
Assets	$5,491,795
Liabilities using a 5.50% discount rate	$26,339,200
Funded Ratio	21%
Expected Benefit Payments	$1,194,883
Liquidity Ratio	4.60
Equity Exposure	57%
Projected Funded Ratio after 15 years	57%

* *Based on funding valuation results as of June 30, 2016.*

Discount Rate	5.0000%

SECTION H

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement Nos. 67 and 68 include specific requirements for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be available or sufficient to meet benefit payments, the use of a "risk-free" rate is required, as described in the following paragraph.

The *single discount rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) a tax-exempt municipal bond rate based on an index of 20-year mixed maturity general obligation bonds with an average AA credit rating (which is published by Fidelity) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 5.0000%, the municipal bond rate is 3.5600%, and the resulting single discount rate is 5.0000%.

The sponsor finances benefits using the Alternative funding policy as defined in state statute. Sponsor contributions are equal to 107 percent of the prior year contribution. The plan also receives state contributions based on an allocation of premium tax that depends on the number of actives and retired members. This funding policy does not directly amortize the unfunded actuarial liability. The statutory contribution does not explicitly separate projected employer contributions between current plan members and future plan members.

For purposes of developing the single equivalent discount rate, we have assumed the actuarial liability for future members will be fully financed, to the extent that assets are available, and any remaining asset will be assigned to current plan members. Based on this assignment of assets and employer contributions, the projected actuarial liability for current plan members is projected to be fully financed by 2043.

The following tables show the assignment of assets and employer contributions and the projection of assets for current members as of the valuation date. Our projections assume the sponsor will make the required statutory contributions. The projections are based on the statutory funding actuarial valuation and projection report as of June 30, 2016.

GASB Statement Nos. 67 and 68 - Alternative Funding Policy
Assignment of assets which provides 100% financing of future member actuarial liability

Plan Year End 6/30	Open Group Actuarial Liability (a)	Closed Group Actuarial Liability (b)	Future Member Actuarial Liability (c) = (a)-(b)	Open Group Assets (d)	Future Member Assigned Assets (e)=min[(c), (d)]	Closed Group Assigned Assets (f)=(d)-(e)	Funded Ratio Current Members (g)=(f)/(b)	Funded Ratio Future Members (h)=(e)/(c)
2016	$28,213,265	$28,213,265	$0	$5,491,795	$0	$5,491,795	19.5%	100.0%
2017	29,362,876	29,362,874	2	6,099,570	2	6,099,568	20.8%	100.0%
2018	30,553,747	30,501,791	51,956	6,772,581	51,956	6,720,625	22.0%	100.0%
2019	31,763,509	31,599,176	164,333	7,498,674	164,333	7,334,341	23.2%	100.0%
2020	32,979,888	32,634,673	345,215	8,271,592	345,215	7,926,377	24.3%	100.0%
2021	34,219,150	33,614,786	604,364	9,109,341	604,364	8,504,977	25.3%	100.0%
2022	35,503,048	34,561,714	941,334	10,038,357	941,334	9,097,023	26.3%	100.0%
2023	36,856,363	35,496,758	1,359,605	11,084,410	1,359,605	9,724,805	27.4%	100.0%
2024	38,299,348	36,442,901	1,856,447	12,270,852	1,856,447	10,414,405	28.6%	100.0%
2025	39,815,825	37,382,279	2,433,546	13,598,893	2,433,546	11,165,347	29.9%	100.0%
2026	41,402,314	38,294,621	3,107,693	15,073,679	3,107,693	11,965,986	31.3%	100.0%
2027	43,091,381	39,207,439	3,883,942	16,730,281	3,883,942	12,846,339	32.8%	100.0%
2028	44,882,336	40,120,447	4,761,889	18,586,411	4,761,889	13,824,522	34.5%	100.0%
2029	46,763,026	41,003,002	5,760,024	20,645,331	5,760,024	14,885,307	36.3%	100.0%
2030	48,761,601	41,871,749	6,889,852	22,940,881	6,889,852	16,051,029	38.3%	100.0%
2031	50,891,885	42,739,968	8,151,917	25,503,193	8,151,917	17,351,276	40.6%	100.0%
2032	53,158,611	43,600,128	9,558,483	28,354,041	9,558,483	18,795,558	43.1%	100.0%
2033	55,546,366	44,426,973	11,119,393	31,501,932	11,119,393	20,382,539	45.9%	100.0%
2034	57,957,829	45,104,857	12,852,972	34,901,623	12,852,972	22,048,651	48.9%	100.0%
2035	60,408,878	45,602,831	14,806,047	38,582,673	14,806,047	23,776,626	52.1%	100.0%
2036	62,947,587	45,973,268	16,974,319	42,609,121	16,974,319	25,634,802	55.8%	100.0%
2037	65,573,243	46,204,036	19,369,207	47,009,067	19,369,207	27,639,860	59.8%	100.0%
2038	68,286,081	46,296,764	21,989,317	51,822,525	21,989,317	29,833,208	64.4%	100.0%
2039	71,100,619	46,267,239	24,833,380	57,091,062	24,833,380	32,257,682	69.7%	100.0%
2040	74,035,505	46,145,945	27,889,560	62,870,280	27,889,560	34,980,720	75.8%	100.0%
2041	77,061,958	45,913,373	31,148,585	69,180,173	31,148,585	38,031,588	82.8%	100.0%
2042	80,172,042	45,557,035	34,615,007	76,052,494	34,615,007	41,437,487	91.0%	100.0%
2043	83,357,894	45,084,486	38,273,408	83,357,894	38,273,408	45,084,486	100.0%	100.0%
2044	86,594,550	44,476,625	42,117,925	86,594,550	42,117,925	44,476,625	100.0%	100.0%
2045	89,889,098	43,746,499	46,142,599	89,889,098	46,142,599	43,746,499	100.0%	100.0%
2046	93,267,512	42,930,356	50,337,156	93,267,512	50,337,156	42,930,356	100.0%	100.0%
2047	96,735,832	42,040,073	54,695,759	96,735,832	54,695,759	42,040,073	100.0%	100.0%
2048	100,305,142	41,083,520	59,221,622	100,305,142	59,221,622	41,083,520	100.0%	100.0%
2049	103,997,194	40,081,093	63,916,101	103,997,194	63,916,101	40,081,093	100.0%	100.0%
2050	107,828,009	39,043,228	68,784,781	107,828,009	68,784,781	39,043,228	100.0%	100.0%
2051	111,809,388	37,975,389	73,833,999	111,809,388	73,833,999	37,975,389	100.0%	100.0%
2052	115,955,219	36,882,949	79,072,270	115,955,219	79,072,270	36,882,949	100.0%	100.0%
2053	120,279,457	35,771,329	84,508,128	120,279,457	84,508,128	35,771,329	100.0%	100.0%
2054	124,788,098	34,643,316	90,144,782	124,788,098	90,144,782	34,643,316	100.0%	100.0%
2055	129,486,799	33,502,570	95,984,229	129,486,799	95,984,229	33,502,570	100.0%	100.0%
2056	134,384,738	32,352,409	102,032,329	134,384,738	102,032,329	32,352,409	100.0%	100.0%

GASB Statement Nos. 67 and 68 - Alternative Funding Policy
Current member projection of assets and assignment of employer contributions

Plan Year End 6/30	Assets (boy)	Member Contributions	Administrative Expenses	Benefit Payments	Assigned Employer/State Contribution	Income on Cash Flow	Income on Assigned Contribution	Total Investment Income	Assets (eoy)
2016	$ 5,238,465	$157,241	$7,750	$1,208,416	$1,333,490	($21,235)	$0	(21,235)	$5,491,795
2017	5,491,795	166,262	7,963	1,194,883	1,361,640	248,675	34,041	282,716	6,099,568
2018	6,099,568	165,515	7,955	1,253,337	1,404,147	277,584	35,104	312,688	6,720,625
2019	6,720,625	162,579	7,965	1,328,983	1,445,282	306,672	36,132	342,804	7,334,341
2020	7,334,341	158,451	7,989	1,413,861	1,483,222	335,132	37,081	372,213	7,926,377
2021	7,926,377	154,587	8,030	1,490,800	1,522,079	362,713	38,052	400,765	8,504,977
2022	8,504,977	151,755	8,079	1,549,428	1,568,481	390,105	39,212	429,317	9,097,023
2023	9,097,023	150,383	8,133	1,594,470	1,620,933	418,546	40,523	459,069	9,724,805
2024	9,724,805	150,576	8,190	1,627,397	1,683,410	449,115	42,085	491,200	10,414,405
2025	10,414,405	149,777	8,248	1,671,162	1,754,238	482,479	43,856	526,335	11,165,347
2026	11,165,347	147,911	8,307	1,727,523	1,824,379	518,569	45,609	564,179	11,965,986
2027	11,965,986	147,521	8,363	1,765,603	1,901,619	557,638	47,540	605,179	12,846,339
2028	12,846,339	146,982	8,421	1,801,305	1,990,419	600,748	49,760	650,509	13,824,522
2029	13,824,522	144,818	8,484	1,855,657	2,079,867	648,243	51,997	700,240	14,885,307
2030	14,885,307	143,659	8,548	1,898,440	2,174,507	700,182	54,363	754,545	16,051,029
2031	16,051,029	143,420	8,617	1,932,478	2,283,231	757,610	57,081	814,690	17,351,276
2032	17,351,276	142,372	8,687	1,970,370	2,399,338	821,647	59,983	881,630	18,795,558
2033	18,795,558	139,979	8,758	2,025,402	2,525,598	892,423	63,140	955,563	20,382,539
2034	20,382,539	129,805	8,825	2,147,574	2,657,799	968,462	66,445	1,034,907	22,048,651
2035	22,048,651	116,355	8,890	2,276,637	2,779,457	1,048,203	69,486	1,117,690	23,776,626
2036	23,776,626	106,368	8,957	2,366,552	2,922,160	1,132,103	73,054	1,205,157	25,634,802
2037	25,634,802	95,770	9,025	2,459,982	3,078,913	1,222,409	76,973	1,299,382	27,639,860
2038	27,639,860	85,390	9,089	2,547,846	3,263,111	1,320,204	81,578	1,401,782	29,833,208
2039	29,833,208	76,613	9,148	2,624,096	3,466,692	1,427,745	86,667	1,514,412	32,257,682
2040	32,257,682	69,872	9,203	2,676,024	3,698,431	1,547,500	92,461	1,639,961	34,980,720
2041	34,980,720	61,694	9,253	2,738,022	3,955,660	1,681,896	98,892	1,780,788	38,031,588
2042	38,031,588	52,583	9,298	2,805,517	4,229,861	1,832,524	105,747	1,938,270	41,437,487
2043	41,437,487	44,060	9,338	2,864,205	4,366,190	2,001,137	109,155	2,110,292	45,084,486
2044	45,084,486	34,141	9,374	2,930,853	113,806	2,181,572	2,845	2,184,417	44,476,625
2045	44,476,625	25,170	9,404	2,983,077	85,403	2,149,648	2,135	2,151,784	43,746,499
2046	43,746,499	18,962	9,430	3,005,876	66,131	2,112,416	1,653	2,114,070	42,930,356
2047	42,930,356	13,825	9,450	3,017,795	50,688	2,071,182	1,267	2,072,449	42,040,073
2048	42,040,073	9,386	9,466	3,021,569	37,692	2,026,462	942	2,027,405	41,083,520
2049	41,083,520	6,527	9,477	3,008,297	29,195	1,978,895	730	1,979,625	40,081,093
2050	40,081,093	4,531	9,483	2,986,166	23,391	1,929,277	585	1,929,861	39,043,228
2051	39,043,228	2,974	9,483	2,958,646	18,812	1,878,033	470	1,878,503	37,975,389
2052	37,975,389	1,832	9,478	2,926,079	15,472	1,825,426	387	1,825,813	36,882,949
2053	36,882,949	1,105	9,467	2,888,711	13,396	1,771,721	335	1,772,056	35,771,329
2054	35,771,329	556	9,449	2,848,335	11,786	1,717,136	295	1,717,430	34,643,316
2055	34,643,316	241	9,425	2,804,531	10,875	1,661,823	272	1,662,095	33,502,570
2056	33,502,570	120	9,394	2,757,611	10,504	1,605,956	263	1,606,219	32,352,409

GASB Statement Nos. 67 and 68 - Alternative Funding Policy
Development of single equivalent discount rate

Plan Year End 6/30	Benefit Payments	Discount Rate	Discounted Benefit Payments	Single Discount Rate	Discounted Benefit Payments
2017	$1,194,883	5.0000%	$1,166,250	5.0000%	$1,166,250
2018	1,253,337	5.0000%	1,165,051	5.0000%	1,165,051
2019	1,328,983	5.0000%	1,176,541	5.0000%	1,176,541
2020	1,413,861	5.0000%	1,192,079	5.0000%	1,192,079
2021	1,490,800	5.0000%	1,197,095	5.0000%	1,197,095
2022	1,549,428	5.0000%	1,184,926	5.0000%	1,184,926
2023	1,594,470	5.0000%	1,161,306	5.0000%	1,161,306
2024	1,627,397	5.0000%	1,128,846	5.0000%	1,128,846
2025	1,671,162	5.0000%	1,104,003	5.0000%	1,104,003
2026	1,727,523	5.0000%	1,086,892	5.0000%	1,086,892
2027	1,765,603	5.0000%	1,057,953	5.0000%	1,057,953
2028	1,801,305	5.0000%	1,027,948	5.0000%	1,027,948
2029	1,855,657	5.0000%	1,008,538	5.0000%	1,008,538
2030	1,898,440	5.0000%	982,658	5.0000%	982,658
2031	1,932,478	5.0000%	952,644	5.0000%	952,644
2032	1,970,370	5.0000%	925,070	5.0000%	925,070
2033	2,025,402	5.0000%	905,626	5.0000%	905,626
2034	2,147,574	5.0000%	914,527	5.0000%	914,527
2035	2,276,637	5.0000%	923,321	5.0000%	923,321
2036	2,366,552	5.0000%	914,083	5.0000%	914,083
2037	2,459,982	5.0000%	904,924	5.0000%	904,924
2038	2,547,846	5.0000%	892,615	5.0000%	892,615
2039	2,624,096	5.0000%	875,551	5.0000%	875,551
2040	2,676,024	5.0000%	850,359	5.0000%	850,359
2041	2,738,022	5.0000%	828,629	5.0000%	828,629
2042	2,805,517	5.0000%	808,624	5.0000%	808,624
2043	2,864,205	5.0000%	786,228	5.0000%	786,228
2044	2,930,853	5.0000%	766,212	5.0000%	766,212
2045	2,983,077	5.0000%	742,729	5.0000%	742,729
2046	3,005,876	5.0000%	712,767	5.0000%	712,767
2047	3,017,795	5.0000%	681,518	5.0000%	681,518
2048	3,021,569	5.0000%	649,876	5.0000%	649,876
2049	3,008,297	5.0000%	616,211	5.0000%	616,211
2050	2,986,166	5.0000%	582,550	5.0000%	582,550
2051	2,958,646	5.0000%	549,697	5.0000%	549,697
2052	2,926,079	5.0000%	517,758	5.0000%	517,758
2053	2,888,711	5.0000%	486,806	5.0000%	486,806
2078	1,284,303	5.0000%	63,913	5.0000%	63,913
2103	27,450	5.0000%	403	5.0000%	403
Total Present Value			**$39,306,300**		**$39,306,300**

SECTION I

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.

Glossary of Terms

Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year.
Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.

Glossary of Terms

Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period and; The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.
Entry Age Actuarial Cost Method (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
Fiduciary Net Position	The fiduciary net position is the value of the assets of the trust.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

Glossary of Terms

Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
Non-employer Contribution Entities	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.
Normal Cost	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.
Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Expense	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: 1. Service Cost 2. Interest on the Total Pension Liability 3. Current-Period Benefit Changes 4. Employee Contributions (made negative for addition here) 5. Projected Earnings on Plan Investments (made negative for addition here) 6. Pension Plan Administrative Expense 7. Other Changes in Plan Fiduciary Net Position 8. Recognition of Outflow/(Inflow) of Resources due to Liabilities 9. Recognition of Outflow/(Inflow) of Resources due to Assets

Glossary of Terms

Total Pension Liability (TPL)	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 67, the valuation asset is equal to the market value of assets.