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Actuarial Valuation
as of January 1, 2016



**KENILWORTH POLICE
PENSION FUND**

GASB 67/68 Reporting

LAUTERBACH & AMEN, LLP

Actuarial GASB Disclosures Statements 67 and 68



Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

GASB 67: KENILWORTH POLICE PENSION FUND

Fiscal Year Ending: December 31, 2015

Actuarial Valuation Date: January 1, 2016

Measurement Date: **December 31, 2015**

GASB 68: VILLAGE OF KENILWORTH, ILLINOIS

Fiscal Year Ending: December 31, 2015

Actuarial Valuation Date: January 1, 2016

Measurement Date: **December 31, 2015**

Submitted by:

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May 11, 2016

LAUTERBACH & AMEN, LLP



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ACTUARIAL CERTIFICATION

This certification provides supplemental information as required by the Governmental Accounting Standards Board. The enclosed schedules were prepared by the undersigned to provide general information to assist in the preparation of the Annual Financial Report. The assumptions and methods used in the preparation of this disclosure meet the parameters set for the disclosures presented in the financial section as required by the Governmental Accounting Standards Board. Additional information is also provided solely to assist the auditors in preparation of the required footnote disclosures.

The results in this report are based on information and data submitted by the Kenilworth Police Pension Fund. We did not prepare the actuarial valuations for the years prior to January 1, 2016. Those Valuations were prepared by other actuaries whose reports have been furnished to us, and our disclosures are based upon those reports. An audit of the information was not performed, but high-level reviews were performed for general reasonableness as appropriate based on the purpose of the valuation. The accuracy of the results is dependent upon the accuracy and completeness of the underlying information. The results of the actuarial valuation and these supplemental disclosures rely on the information provided.

The valuation results summarized involve actuarial calculations that require assumptions about future events. The Kenilworth Police Pension Fund selected certain assumptions, while others were the result of guidance and/or judgment. We believe that the assumptions used in the valuation are reasonable and appropriate for the purposes for which they have been used.

To the best of our knowledge, all calculations are in accordance with the applicable funding requirements, and the procedures followed and presentation of results conform to generally accepted actuarial principles and practices. The undersigned consultant of Lauterbach & Amen, LLP with actuarial credentials meets the Qualification Standards of the American Academy of Actuaries to render this Actuarial Certification. There is no relationship between the Kenilworth Police Pension Fund and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,
LAUTERBACH & AMEN, LLP

Todd A. Schroeder, EA



PENSION FUND NET POSITION

Statement of Net Position
Statement of Changes in Net Position

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STATEMENT OF FIDUCIARY NET POSITION

	<u>2015</u>	<u>2014</u>
Assets		
Cash and Cash Equivalents	\$ 2,427,452	\$ 2,754,905
Total cash	<u>2,427,452</u>	<u>2,754,905</u>
Receivables:		
Due from Treasury	8,706	6,814
Investment Income - Accrued Interest	<u>3,806</u>	<u>10,242</u>
Total Receivables	<u>12,512</u>	<u>17,056</u>
Investments:		
U.S. Govt and Agency Obligations	318,331	841,611
Certificates of Deposit	969,076	-
Mutual Funds	<u>2,607,711</u>	<u>2,521,608</u>
Total Investments	<u>3,895,117</u>	<u>3,363,219</u>
Total Assets	<u>6,335,082</u>	<u>6,135,180</u>
Liabilities		
Payables:		
Expenses Due/Unpaid	<u>712</u>	<u>6,164</u>
Total Liabilities	<u>712</u>	<u>6,164</u>
Net Position Restricted for Pensions	<u>\$ 6,334,369</u>	<u>\$ 6,129,016</u>

The Fiduciary Net Position of the Fund shown above is intended to be in accordance with GAAP and Government Accounting Standards Board rules. The Fair Market Value of Investments has been provided by the reporting entity, and the results are being audited by an independent auditor. The level of the assets has been reviewed for reasonableness, but we make no representation as to the accuracy of the measurement of the fair market value of the investments. The assets for 2015 are audited.



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

	<u>2015</u>
Additions	
Contributions	
Employer	\$ 800,144
Other	-
Member	<u>79,967</u>
Total Contributions	<u>880,110</u>
Investment Income	
Gross Investment Income	1,171
Other Miscellaneous Revenue	400
Less Investment Expense	<u>(23,377)</u>
Net Investment Income	<u>(21,805)</u>
Total Additions	<u>858,305</u>
Deductions	
Benefit payments and Refunds of Member Contributions	643,012
Administrative Expense	9,940
Total Deductions	<u>652,952</u>
Net Increase in Net Position	205,353
Net Position Restricted for Pensions	
Beginning of Year	<u>6,129,016</u>
End of Year	<u>\$ 6,334,369</u>

The Changes in Fiduciary Net Position of the Fund shown above is intended to be in accordance with GAAP and Government Accounting Standards Board rules. The changes have been provided by the reporting entity, and the results are being audited by an independent auditor. The changes have been reviewed for reasonableness, but we make no representation as to the accuracy of the measurement of the fair market value of the investments. The assets for 2015 are audited.



ACTUARIAL PENSION LIABILITY INFORMATION

Statement of Total Pension Liability
Statement of Changes in Total Pension Liability
Statement of Changes in Net Pension Liability
Deferred Outflows and Inflows of Resources

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STATEMENT OF TOTAL PENSION LIABILITY

	<u>2015</u>	<u>2014</u>
Active Employees	\$ 5,388,866	5,044,977
Inactive Employees		
Terminated Employees - Vested	-	-
Retired Employees	8,694,739	7,249,479
Disabled Employees	-	-
Other Beneficiaries	1,057,192	987,394
Total Inactive Employees	<u>9,751,931</u>	<u>8,236,873</u>
Total Pension Liability	<u>\$ 15,140,797</u>	<u>\$ 13,281,850</u>

The Total Pension Liability (TPL) shown is dependent on several factors such as plan provisions and actuarial assumptions used in the report. In addition, the calculation of the TPL may be dependent on the Fiduciary Net Position shown on the prior page. Changes in the Fiduciary Net Position due to any factor including adjustment on final audit could change the TPL. The dependence of the TPL on the Net Position is due to the role of the Net Position (and projected Net Position) on the determination of the discount rate used for the TPL.

The TPL has been determined for GASB 67/68 reporting purposes only. The resulting TPL is intended to be used in the financial statement reporting of the fund and/or the Employer. The resulting liability is not intended to be a representation of the fund liability for other purposes, including but not limited to determination of cash funding requirements and recommendations. The TPL is based on data as of the Data Date shown in this report. The TPL has been determined as of the Actuarial Valuation Date and based on the assumptions shown in this report, and adjusted to the Measurement Date as needed.



STATEMENT OF CHANGES IN TOTAL PENSION LIABILITY

	<u>2015</u>
Changes in Total Pension Liability	
Service Cost	\$ 222,015
Interest	777,621
Changes of Benefit Terms	-
Differences Between Expected and Actual Experience	150,138
Changes in Assumptions	1,352,185
Benefit Payments and Refunds	(643,012)
Net Change in Total Pension Liability	\$ 1,858,947
Total Pension Liability - Beginning	13,281,850
Total Pension Liability - Ending (a)	<u>\$ 15,140,797</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,334,369</u>
Employer's Net Pension Liability - Ending (a) - (b)	<u>\$ 8,806,428</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	42%
Covered-Employee Payroll	\$ 866,420
Employer's Net Pension Liability as a Percentage of Employee Payroll	1016%

The plan Fiduciary Net Position was detailed in the prior section of this report. The employer's Net Pension Liability is the excess of the Total Pension Liability over the plan Fiduciary Net Position.

Total Pension Liability may be dependent on the Net Position of the fund. Changes in the Net Position could change the determination of the Total Pension Liability. Any changes in Net Position including adjustments on final audit can have an impact on Net Pension Liability that extends beyond the dollar-for-dollar change in Net Position.

Covered employee payroll is based on total W-2 pay for the fund members during the fiscal year.



STATEMENT OF CHANGES IN NET PENSION LIABILITY

The table below illustrates the change in the Net Pension Liability (NPL) from the prior Measurement Date to the current Measurement Date. Under Statement 68, the difference between the NPL from the prior measurement date to the current measurement date should be recognized as an expense, unless permitted to be recognized as a deferred outflow or inflow of resources.

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a) - (b)
Balances Beginning at 01/01/15	<u>13,281,850</u>	<u>6,129,016</u>	<u>7,152,834</u>
Changes for the year:			
Service Cost	222,015	-	222,015
Interest	777,621	-	777,621
Actuarial Experience	150,138	-	150,138
Assumptions Changes	1,352,185	-	1,352,185
Plan Changes	-	-	-
Contributions - Employer	-	800,144	(800,144)
Contributions - Employee	-	79,967	(79,967)
Contributions - Other	-	-	-
Net Investment Income	-	(21,805)	21,805
Benefit payments, including refunds	(643,012)	(643,012)	-
Administrative Expense	-	(9,940)	9,940
Net Changes	<u>1,858,947</u>	<u>205,353</u>	<u>1,653,594</u>
Balances Beginning at 12/31/15	<u>\$ 15,140,797</u>	<u>\$ 6,334,369</u>	<u>\$ 8,806,428</u>

The changes in total pension liability above are described on the prior page. The plan fiduciary net position was detailed in the prior section of this report. The employer's Net Pension Liability is the excess of the Total Pension Liability over the plan fiduciary net position.



DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

The table below shows the cumulative amounts to be shown as deferred outflows and inflows of resources. Changes in total pension liability related to the difference in actual and expected experience, or changes in assumptions regarding future events, are recognized in pension expense over the expected remaining service life of all employees (active and retired) in the pension fund. Differences in projected and actual earnings over the measurement period are recognized over a 5 year period. Amounts not yet recognized are summarized below:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 119,497	\$ -
Changes of Assumptions	1,076,228	-
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	317,088	-
Contributions Subsequent to the Measurement Date*	-	-
Total	<u>\$ 1,512,813</u>	<u>\$ -</u>

* Contributions subsequent to the measurement date may be recognized as a reduction to the NPL. The amount is not known as of the date of this report. Subsequent to the measurement date, the following amounts will be recognized in pension expense in the upcoming years:

Year ended December, 31:

2016	\$ 385,871
2017	385,871
2018	385,871
2019	355,200
2020	-
Thereafter	-



DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES - DETAILS

The table below shows the annual detail amounts that have been summarized on the prior page. Under Statement 68, the level of detail shown on the prior page is sufficient for financial statement reporting. The detail shown below is primarily for tracking purposes.

Pension Expense Source	Date Established	Initial Period	Initial Balance	Remaining Period	12/31/2015	12/31/2015
					Expense Recognized	Deferred Balance
Asset (Gain)/Loss	12/31/2015	5.00	396,361	5.00	79,273	317,088
Change in Assumptions (Gain)/Loss	12/31/2015	4.90	1,352,185	4.90	275,957	1,076,228
Actuarial (Gain)/Loss	12/31/2015	4.90	150,138	4.90	30,641	119,497
Total			1,898,684		385,871	1,512,813

Each detail item in the chart above was established as of the Fiscal Year End shown and the full amount deferred has been determined as of that time. Any events that occur in subsequent fiscal years do not have an impact on the prior fiscal year. The bases are established independently each year.



PENSION EXPENSE DEVELOPMENT

The table below displays the pension expense development for the current year. The pension expense includes items that change the Net Pension Liability from one year to the next, netted out for amounts that are deferred under GASB pronouncement, plus any amounts that are being recognized that were deferred previously.

See below for development of the pension expense:

	<u>2015</u>
Pension Expense/(Income) Under GASB 68	
Service Cost	\$ 222,015
Interest	777,621
Plan Changes	-
Contributions - Employee	(79,967)
Contributions - Other	-
Expected Investment Income	(374,556)
Administrative Expense	9,940
Other Changes	-
Initial Pension Expense/(Income)	\$ 555,053
Recognition of Outflow/(Inflow) of Resources due to Liabilities	306,598
Recognition of Outflow/(Inflow) of Resources due to Assets	79,273
Total Pension Expense/(Income)	<u>\$ 940,924</u>



ACTUARIAL ASSUMPTION INFORMATION

Statement of Significant Actuarial Assumptions
Notes on Actuarial Assumptions
Development of the Discount Rate
Sensitivity of the Discount Rate

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STATEMENT OF SIGNIFICANT ACTUARIAL ASSUMPTIONS

Actuarial Assumptions (Economic)

Discount Rate used for the Total Pension Liability	6.00%
Long-Term Expected Rate of Return on Plan Assets	6.00%
High Quality 20 Year Tax-Exempt G.O. Bond Rate	3.57%
Projected Individual Salary Increases	3.50% - 12.25%
Projected Increase in Total Payroll	3.50%
Consumer Price Index (Utilities)	2.50%
Inflation Rate Included	2.50%

Actuarial Assumptions (Demographic)

Mortality Table	L&A 2016 Illinois Police Mortality Rates
Retirement Rates	L&A 2016 Illinois Police Retirement Rates Capped at age 65
Disability Rates	L&A 2016 Illinois Police Disability Rates
Termination Rates	L&A 2016 Illinois Police Termination Rates
Percent Married	80.0%

All rates shown in the economic assumptions are assumed to be annual rates, compounded on an annual basis. For more information on the selection of the actuarial assumptions, please see the assumption document prepared for the Fund.

ASSUMPTION CHANGES

The Assumptions were changed from the prior year.

The assumed rate on High Quality 20 Year Tax-Exempt G.O. Bonds was changed to 3.57% for the current year. The underlying index used is The Bond Buyer 20-Bond GO Index as discussed in more detail later in this section. The choice of index is unchanged from the prior year. The rate has been



updated to the current fiscal year end based on changes in market conditions as reflected in the Index. The change was made to reflect our understanding of the requirements of GASB under Statement 67 and Statement 68.

The discount rate used in the determination of the Total Pension Liability was changed from 6.50% to 6.00%. The discount rate is impacted by a couple of metrics. Any change in the underlying High Quality 20 Year Tax Exempt G.O. Bond Rate will impact the blended discount rate.

In addition, changes made that impact the projection of the Net Position of the fund. For example, changes in the formal or informal funding policy can impact the discount rate. Actual changes in the net position from one year to the next can impact the projections as well.

The demographic assumptions were changed to the tables shown on the prior page. The changes were made based on a study of Police Officers and police pension funds in Illinois. The changes are described in the assumption document for the pension fund. The changes were made to better reflect the future anticipated experience of the fund. The assumptions impacted include:

- Mortality Rates
- Mortality Improvement Rates
- Retirement Rates
- Disability Rates
- Termination Rates



NOTES ON ACTUARIAL ASSUMPTIONS

Individual Pay Increases

Individual pay increases include provisions for annual cost of living increases, plus any additional increases in pensionable pay provided (step increases, longevity increases, promotions, educations, etc). Sample rates are as follows:

Service	Rate	Service	Rate
0	12.25%	8	4.00%
1	10.00%	9	4.00%
2	9.00%	10	4.00%
3	7.75%	15	4.00%
4	7.00%	20	4.00%
5	5.25%	25	3.50%
6	4.75%	30	3.50%
7	4.00%		

Demographic Assumptions

Mortality rates are based on the assumption study prepared by Lauterbach & Amen, LLP in 2016. The table combines observed experience of Illinois Police Officers with the RP-2014 mortality table for blue collar workers. Mortality improvements have been made to 5 years past the valuation date.

Other demographic assumption rates are based on a review of assumptions in the L&A 2016 study for Illinois Police Officers.

POSTEMPLOYMENT BENEFIT CHANGES

Eligibility for postemployment benefit increases is determined based on the Illinois Pension code. Tier 1 Police retirees are provided with an annual 3.0% increase in retirement benefits by statute when eligible. Tier 2 Police retirees are provided postemployment benefit increases based on one-half of the Consumer Price Index (Urban) for the prior September.

The CPI-U for September, 1985 was 108.3. The CPI-U for September, 2015 was 237.9. The average increase in the CPI-U for September, 1985 through September, 2015 was 2.66% (on a compounded basis).



EXPECTED RETURN ON PENSION PLAN INVESTMENTS

The long-term expected rate of return on assets is intended to represent the best estimate of future real rates of return and is shown for each of the major asset classes in the investment policy. The expected rates of return on assets shown below have been provided by the investment professionals that work with the pension fund. The best estimate of future real rates of return are developed for each of the major asset classes. Expected inflation is added back in. Adjustment is made to reflect geometric returns.

A summary of the best estimate of future real rates of returns (annual arithmetic average) are included in the table below.

<u>Asset Class</u>	<u>Long-Term Expected Rate of Return</u>	<u>Long-Term Inflation Expectations</u>	<u>Long-Term Expected Real Rate of Return</u>	<u>Target Allocation</u>
Equity	11.35%	3.69%	7.66%	40.00%
Fixed Income	7.67%	3.69%	3.98%	58.00%
Cash Equivalents	4.80%	3.69%	1.11%	2.00%

Long-term expected real returns under GASB are expected to reflect the period of time that begins when a plan member begins to provide service to the employer and ends at the point when all benefits to the plan member have been paid. The rates provided above are intended to estimate those figures.

The expected inflation rate is 3.69% and is included in the total long-term rate of return on investments. The inflation rate is from the same source as the long-term real rates of return, and is not necessarily reflective of the inflation measures used for other purposes in the report.

Geometric rates of return are equal to arithmetic rates of return when the annual returns exhibit no volatility over time. When arithmetic returns are volatile on a year-to-year basis, the actual realized geometric returns over time will be lower. The higher the volatility, the greater the difference.



MUNICIPAL BOND RATE

The municipal bond rate assumption is based on The Bond Buyer 20-Bond GO Index. The rate shown earlier in the Actuarial Assumption section is the December 30, 2015 rate. The 20-Bond GO Index is based on an average of certain general obligation municipal bonds maturing in 20 years and having an average rating equivalent of Moody's Aa2 and Standard & Poor's AA.

The 20-Bond Index consists of 20 general obligation bonds that mature in 20 years. The average rating of the 20 bonds is roughly equivalent to Moody's Investors Service's Aa2 rating and Standard & Poor's Corp.'s AA.

The indexes represent theoretical yields rather than actual price or yield quotations. Municipal bond traders are asked to estimate what a current-coupon bond for each issuer in the indexes would yield if the bond was sold at par value. The indexes are simple averages of the average estimated yields of the bonds.

DISCOUNT RATE

The discount rate used in the determination of the Total Pension Liability is based on a combination of the expected long-term rate of return on plan investments and the municipal bond rate.

Cash flow projections were used to determine the extent which the plan's future net position will be able to cover future benefit payments. To the extent future benefit payments are covered by the plan's projected net position, the expected rate of return on plan investments is used to determine the portion of the net pension liability associated with those payments. To the extent future benefit payments are not covered by the plan's projected net position, the municipal bond rate is used to determine the portion of the net pension liability associated with those payments.

Projected benefit payments are determined during the actuarial process based on the assumptions. More details on the assumptions are in the prior section. The expected contributions are based on the funding policy of the plan. The funding policy is discussed in more detail in a later section.



SENSITIVITY OF THE DISCOUNT RATE

The Net Pension Liability has been determined using the discount rate listed in the assumption section. Below is a table illustrating the sensitivity of the Net Pension Liability to the discount rate assumption.

	1% Decrease (5.00%)	Current Discount Rate (6.00%)	1% Increase (7.00%)
Employer Net Pension Liability	\$11,130,703	\$8,806,428	\$6,928,170

The sensitivity of the Net Pension Liability to the discount rate is based primarily on two factors:

1. The duration of the plan's expected benefit payments. Younger plans with benefit payments further in the future will be more sensitive to changes in the discount rate.
2. The funded percentage of the plan (ratio of the net position to the total pension liability). The higher the funded percentage, the higher the sensitivity to the discount rate.

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PARTICIPANT DATA

Participant Demographic Data
Expected Future Working Lifetime

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PARTICIPANT DEMOGRAPHIC DATA

The chart below summarizes the employee count and payroll as of the Actuarial Valuation Date:

	<u>2015</u>	<u>2014</u>
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12	12
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	0	0
Active Plan Members	9	9
Total	<u>21</u>	<u>21</u>
Payroll of Active Plan Members	<u>\$ 818,113</u>	<u>\$ 795,925</u>

Participant count is shown as of the Actuarial Valuation Date. Pay is the active pensionable pay as of the Actuarial Valuation Date.

EXPECTED FUTURE WORKING LIFETIME

The chart below summarizes the expected future working lifetime of fund members:

	<u>2015</u>
Average Future Working Career (In Years)	
Active Plan Members	11.43
Inactive Plan Members	0.00
Total	4.90

The expected future working lifetime is measured as of the Actuarial Valuation Date and is based on the demographic assumptions used in the preparation of the Actuary's report.



FUNDING POLICY

Formal Funding Policy
Informal Funding Policy

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COMPONENTS OF THE ACTUARIALLY DETERMINED CONTRIBUTION

The Actuarially Determined Contribution (ADC) includes the determination of the Normal Cost contribution for active plan members, as well as provision for the payment of unfunded liability.

The actuarial funding method used in the determination of the normal cost and the actuarial liability is the Entry Age Normal Cost method (level percent of pay). The method allocates normal cost contributions by employee over the working career of the employee as a level percent of their pay.

Unfunded liability is the excess of the actuarial liability over the actuarial value of assets. The actuarially determined contribution includes a payment towards unfunded liability existing at the actuarial valuation date. The payment towards unfunded liability is set up as a level percent of payroll payment that is expected to increase during the payment period. The period of repayment as of the Actuarial Valuation Date is 25 years.

The Actuarial Value of Assets smooths gains and losses on the market value of assets over a 5-year period.

Under no circumstances will the Actuarially Determined Contribution be less than the amount determined as the Statutory Minimum Contribution under Illinois statutes.

FORMAL FUNDING POLICY

There is no Formal Funding Policy that exists between the Pension Board and the Village at this time.

INFORMAL FUNDING POLICY

In determining the most appropriate informal funding policy, GASB provides the following guidance in the Statement:

Application of professional judgment should consider the most recent five-year contribution history of the employers and nonemployer contributing entities as a key indicator of future contributions from those sources and should reflect all other known events and conditions.... the amount of projected cash flows for contributions from employers and nonemployer contributing entities should be limited to an average of contributions from those sources over the most recent five-year period and may be modified based on consideration of subsequent events. For this purpose, the basis for the average (for example, percentage of covered payroll contributed or percentage of actuarially determined contributions made) should be a matter of professional judgment.



In our review of informal funding policy, the following factors are considered and described herein:

1. The five-year contribution history of the Employer (with a focus on the average contributions from those sources.)
2. All other known events and conditions
3. Consideration of subsequent events.

Five-Year Contribution History of the Employer

Employer contributions (under the informal policy) should be limited to the average over the most recent five years. In determining the basis for the average we reviewed three possibilities: (a) The average dollar contribution; (b) the average percent of pensionable pay; and (c) The average percent of the actuarial determined contribution. Please see the table below for a summary of these values:

<u>Fiscal Year End</u>	<u>Employer Contributions</u>	<u>Most Applicable ADC</u>	<u>% of ADC</u>	<u>Covered Payroll</u>	<u>% of Payroll</u>
12/31/2015	\$800,144	\$396,908	202%	\$818,113	97.80%
12/31/2014	\$355,989	\$365,391	97%	\$795,925	44.73%
12/31/2013	\$527,109	\$333,321	158%	\$749,723	70.31%
12/31/2012	\$156,418	\$212,643	74%	\$775,439	20.17%
4/30/2012	\$327,258	\$340,689	96%	\$760,067	43.06%

When compared to the other policies reviewed, history suggests that a contribution as a percent of the Actuarially Determined Contribution is the least volatile, and as a result, the most stable contribution method under an informal funding policy.

Other Known Events and Conditions

GASB has a provision for consideration of any other known events or conditions in the most recent five-year history in applying judgement for the informal funding policy. There are no events or conditions that have been considered in the development of the informal funding policy.

Consideration of Subsequent Events

GASB has a provision for modification based on consideration of subsequent events in development of the informal funding policy. There are no subsequent events that have been considered in the development of the informal funding policy.



Informal Funding Policy – Selected

The informal funding policy that has been determined for future contributions is 125.36% of the Actuarially Determined Contribution. This represents the full future contributions expected to be made.

FUNDING POLICY – OTHER CONSIDERATIONS

Under GASB, the future contribution amount is not intended to include dollars contributed on behalf of future employees. Contributions are only intended to cover contributions towards the Normal Cost of existing employees as of the Actuarial Valuation Date as well as payment of unfunded liability on behalf of the current existing employees. Contributions under the funding policy have been adjusted as necessary to exclude dollars that would be anticipated to be contributed on behalf of future employees hired after the actuarial valuation date.

The contribution level may not pay off the unfunded liability during the active working lifetimes of current employees. In that case contributions will persist beyond the working lifetimes of current employees. To the extent a portion of the above total contribution is anticipated to pay contributions for future employee normal cost, the amount has been netted out. The remaining amount is anticipated to be paid towards the unfunded liability existing for current employees.

The actuarial determined contribution is determined annually based on the parameters previously discussed. The funding methods and procedures are assumed to continue into the future. The tax levy in the next December is assumed to be the actuarially determined contribution. Funding is assumed to go into the fund during the next full fiscal year.



SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Net Pension Liability
Schedule of Total Pension Liability and Related Ratios
Schedule of the Actuarially Determined Contribution

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SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Total Pension Liability										
Service Cost	\$ 222,015	214,682								
Interest	777,621	738,778								
Changes of Benefit Terms	-	-								
Differences Between Expected and Actual Experience	150,138	521,142								
Changes in Assumptions	1,352,185	810,192								
Benefit Payments and Refunds	(643,012)	(737,524)								
Net Change In Total Pension Liability	1,858,947	1,547,270								
Total Pension Liability - Beginning	13,281,850	11,734,580								
Total Pension Liability - Ending (A)	15,140,797	13,281,850								
Plan Fiduciary Net Position										
Contributions - Employer	800,144	355,989								
Contributions - Member	79,967	123,705								
Net Investment Income	(21,805)	238,390								
Benefit Payments and Refunds	(643,012)	(737,524)								
Administrative Expense	(9,940)	(6,514)								
Other	-	-								
Net Change in Plan Fiduciary Net Position	205,353	(25,954)								
Plan Fiduciary Net Position - Beginning	6,129,016	6,154,970								
Plan Fiduciary Net Position - Ending (b)	6,334,369	6,129,016								
Employer Net Pension Liability - Ending (a) - (b)	8,806,428	7,152,834								

The current year information was developed in the completion of this report.



SCHEDULE OF TOTAL PENSION LIABILITY AND RELATED RATIO

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Total Pension Liability - Ending (a)	<u>\$ 15,140,797</u>	<u>\$ 13,281,850</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Plan Fiduciary Net Position - Ending (b)	<u>6,334,369</u>	<u>6,129,016</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Employer Net Pension Liability - Ending (a) - (b)	<u>8,806,428</u>	<u>7,152,834</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	41.84%	46.15%								
Covered-Employee Payroll	866,420	795,925								
Employer Net Pension Liability as a Percentage of Covered-Employee Payroll	1016.42%	898.68%								

Covered employee payroll shown is the W-2 pay for the fiscal year for all fund members.



SCHEDULE OF CONTRIBUTIONS

	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Actuarially Determined Contribution	\$396,908	\$ 365,391								
Contributions in Relation to the Actuarially Determined Contribution	800,144	355,989								
Contribution Deficiency (excess)	(403,236)	9,402								
Covered-Employee Payroll	866,420	795,925								
Contributions as a Percentage of Covered-Employee Payroll	92.4%	44.7%								

NOTES TO SCHEDULE OF CONTRIBUTIONS

The actuarially determined contribution shown for the current year is from the December 31, 2013 actuary's report completed by Timothy W. Sharpe, Enrolled Actuary for the tax levy recommendation for the December, 2014 tax levy.



GASB METHODS AND PROCEDURES

GASB Methods and Procedures
Methodology for Deferred Outflows and Inflows

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GASB METHODS AND PROCEDURES

	Statement 67	Statement 68
	<u>Pension Fund Financials</u>	<u>Employer Financials</u>
Fiscal Year End for Reporting	December 31, 2015	December 31, 2015
Measurement Date	December 31, 2015	December 31, 2015
Actuarial Valuation Date	January 1, 2016	January 1, 2016
Actuarial Valuation - Data Date	December 31, 2015	December 31, 2015
Asset Valuation Method	Market Value	Market Value
Actuarial Cost Method	Entry Age Normal (Level %)	Entry Age Normal (Level %)
Methodology Used in the Determination of Deferred Inflows and Outflows of Resources		
Amortization Method	Straight Line	Straight Line
Amortization Period		
Actuarial Experience (TPL)	4.90 Years	4.90 Years
Changes in Assumptions	4.90 Years	4.90 Years
Asset Experience	5.00 Years	5.00 Years



SUPPLEMENTARY TABLES

Projection of Contributions
Projection of the Pension Fund's Fiduciary Net Position
Actuarial Present Value of Projected Benefit Payments

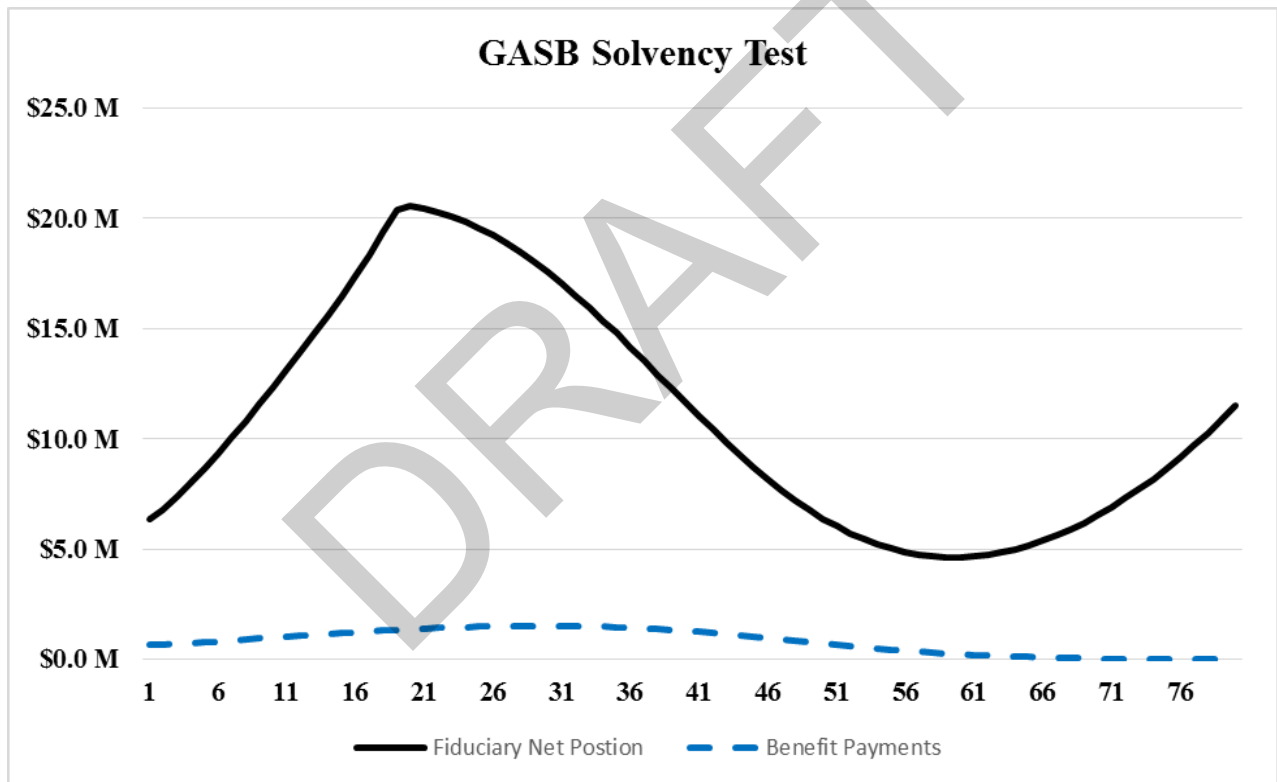
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GASB PROJECTIONS – SUMMARY AND PROCEDURE

GASB requires a solvency test to use in the determination of the discount rate each year. The Fiduciary Net Position of the fund is projected forward. To the extent the Net Position of the Fund is anticipated to be greater than \$0, benefit payments during that time period are discounted based on the expected rate of return on plan assets.

If the Fiduciary Net Position of the fund is anticipated to go to \$0 prior to the payment of future benefit payments for employees who are in the fund as of the Actuarial Valuation Date, then remaining expected future benefit payments are discounted using a high quality Municipal Bond rate as described in the assumption section of the report. Below is a chart with a high level summary of the projections:



The plan's projected net position is expected to cover future benefit payments in full for the current employees.



GASB PROJECTIONS – LIMITATIONS

Projections of any type require assumptions about future events. The projections required for GASB reporting are deterministic in nature. That means that values are projected forward under one set of assumptions which can be thought of as the average result. Actual results could vary, and projections of one deterministic assumption set do not necessarily provide a framework for making risk management or funding policy decisions. Projections that deal with risk management are outside the scope of this report.

In addition, GASB requirements create results that are specific only to financial statement reporting, and should not be used or interpreted for other purposes. For example, GASB cash flow projections do not entail the total expected cash flows of the pension fund, but rather a subset of cash flows specific to members who are in the pension fund as of the Actuarial Valuation date. While the likely expectation may be that new employees are hired to replace the old, cash flows attributable to their benefits are not considered. Under GASB, when the Net Position goes to \$0, that represents only the Net Position for the assets attributable to the current fund members.

GASB also mandates certain assumptions that are made in the projection process. Most notably, future contributions under an informal funding policy. In proposing an informal funding policy, GASB suggests a focus be placed on the average contribution rate over the past 5 years. Assumed contributions noted in this section may be based on the five-year average, unless a formal funding policy is in place.

Contributions reflecting informal funding policy are applied under GASB, whether or not the future results dictate a need for more or less contributions. This would not be the case with other uses for projections. Any events that are taken into account (past or future) in the informal funding policy are discussed in the “Funding Policy” section of this report.

The further you look forward with projections, the more sensitive the results are to assumptions. With projections that run out close to 80 years, a small change in an assumption will have a dramatic impact in the look of the projections on the following pages. If there is no change to the solvency of the fund as determined by GASB, big swings in the projection results may not necessarily lead to big swings in the determination of the Total Pension Liability.

We recommend the projections are not used for any other purposes, other than providing backup information for purposes of the financial statement report.

The following pages provide the detail behind the charts shown on the chart in this section.



PROJECTION OF CONTRIBUTIONS – YEARS 1 TO 30

Year	Projected Covered-Employee Payroll			Projected Contributions			
	Current Employees (a)	Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Current Employees (d) - Notes	Employer Contributions for Current Employees (e) - Notes	Contributions Related to Pay of Future Employees (f) - Notes	Total Contributions (d) + (e) + (f)
1	\$ 818,112	\$ -	\$ 818,112	\$ 81,075	\$ 629,069	\$ -	\$ 710,144
2	822,822	23,924	846,746	81,542	781,489	-	863,031
3	827,382	49,000	876,382	81,994	806,056	-	888,050
4	833,151	73,904	907,055	82,565	831,264	-	913,829
5	828,464	110,338	938,802	82,101	857,419	-	939,519
6	809,724	161,936	971,660	80,244	882,566	-	962,810
7	792,145	213,524	1,005,669	78,502	906,641	-	985,142
8	762,787	278,080	1,040,867	75,592	931,656	-	1,007,248
9	736,442	340,855	1,077,297	72,981	956,038	-	1,029,019
10	590,920	524,083	1,115,003	58,560	981,727	-	1,040,288
11	552,177	601,851	1,154,028	54,721	973,298	-	1,028,019
12	516,306	678,113	1,194,419	51,166	997,181	-	1,048,347
13	484,306	751,917	1,236,223	47,995	1,022,673	-	1,070,668
14	449,348	830,143	1,279,491	44,530	1,049,858	-	1,094,389
15	410,257	914,016	1,324,273	40,656	1,077,932	-	1,118,588
16	376,090	994,533	1,370,623	37,271	1,103,724	-	1,140,994
17	334,641	1,083,954	1,418,595	33,163	1,131,730	-	1,164,892
18	296,459	1,171,787	1,468,246	29,379	1,159,856	-	1,189,235
19	258,812	1,260,822	1,519,634	25,648	266,624	-	292,273
20	207,025	1,365,796	1,572,821	20,516	53,688	-	74,204
21	177,512	1,450,358	1,627,870	17,591	42,870	-	60,461
22	146,924	1,537,922	1,684,846	14,560	36,576	-	51,136
23	123,402	1,620,413	1,743,815	12,229	30,436	-	42,665
24	102,872	1,701,977	1,804,849	10,195	25,274	-	35,469
25	76,060	1,791,958	1,868,018	7,538	20,879	-	28,417
26	62,442	1,870,957	1,933,399	6,188	14,655	-	20,843
27	50,882	1,950,186	2,001,068	5,042	12,062	-	17,104
28	39,733	2,031,372	2,071,105	3,938	9,850	-	13,788
29	29,970	2,113,624	2,143,594	2,970	7,692	-	10,662
30	22,642	2,195,978	2,218,620	2,244	5,822	-	8,066

Column d – Contributions from employees to the pension fund (employees as of the valuation date)

Column e – Employer contributions to the fund excluding contributions for employees hired after the actuarial valuation date

Column f – Contributions from future employees to the extent they are anticipated to be greater than required to pay their total normal cost



PROJECTION OF CONTRIBUTIONS – YEARS 31 TO 60

Year	Projected Covered-Employee Payroll			Projected Contributions			
	Current Employees (a)	Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Current Employees (d) - Notes	Employer Contributions for Current Employees (e) - Notes	Contributions Related to Pay of Future Employees (f) - Notes	Total Contributions (d) + (e) + (f)
31	\$ 12,559	\$ 2,283,713	\$ 2,296,272	\$ 1,245	\$ 4,412	\$ -	\$ 5,657
32	8,808	2,367,833	2,376,641	873	2,548	-	3,421
33	6,169	2,453,655	2,459,824	611	1,787	-	2,398
34	-	2,545,917	2,545,917	-	1,252	-	1,252
35	-	2,635,024	2,635,024	-	-	-	-
36	-	2,727,250	2,727,250	-	-	-	-
37	-	2,822,704	2,822,704	-	-	-	-
38	-	2,921,499	2,921,499	-	-	-	-
39	-	3,023,751	3,023,751	-	-	-	-
40	-	3,129,583	3,129,583	-	-	-	-
41	-	3,239,118	3,239,118	-	-	-	-
42	-	3,352,487	3,352,487	-	-	-	-
43	-	3,469,824	3,469,824	-	-	-	-
44	-	3,591,268	3,591,268	-	-	-	-
45	-	3,716,962	3,716,962	-	-	-	-
46	-	3,847,056	3,847,056	-	-	-	-
47	-	3,981,703	3,981,703	-	-	-	-
48	-	4,121,063	4,121,063	-	-	-	-
49	-	4,265,300	4,265,300	-	-	-	-
50	-	4,414,585	4,414,585	-	-	-	-
51	-	4,569,096	4,569,096	-	-	-	-
52	-	4,729,014	4,729,014	-	-	-	-
53	-	4,894,530	4,894,530	-	-	-	-
54	-	5,065,838	5,065,838	-	-	-	-
55	-	5,243,142	5,243,142	-	-	-	-
56	-	5,426,652	5,426,652	-	-	-	-
57	-	5,616,585	5,616,585	-	-	-	-
58	-	5,813,166	5,813,166	-	-	-	-
59	-	6,016,626	6,016,626	-	-	-	-
60	-	6,227,208	6,227,208	-	-	-	-

Column d – Contributions from employees to the pension fund (employees as of the valuation date)

Column e – Employer contributions to the fund excluding contributions for employees hired after the actuarial valuation date

Column f – Contributions from future employees to the extent they are anticipated to be greater than required to pay their total normal cost



PROJECTION OF CONTRIBUTIONS – YEARS 61 TO 80

Year	Projected Covered-Employee Payroll			Projected Contributions			
	Current Employees (a)	Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Current Employees (d) - Notes	Employer Contributions for Current Employees (e) - Notes	Contributions Related to Pay of Future Employees (f) - Notes	Total Contributions (d) + (e) + (f)
61	\$ -	\$ 6,445,161	\$ 6,445,161	\$ -	\$ -	\$ -	\$ -
62	-	6,670,741	6,670,741	-	-	-	-
63	-	6,904,217	6,904,217	-	-	-	-
64	-	7,145,865	7,145,865	-	-	-	-
65	-	7,395,970	7,395,970	-	-	-	-
66	-	7,654,829	7,654,829	-	-	-	-
67	-	7,922,748	7,922,748	-	-	-	-
68	-	8,200,044	8,200,044	-	-	-	-
69	-	8,487,046	8,487,046	-	-	-	-
70	-	8,784,092	8,784,092	-	-	-	-
71	-	9,091,536	9,091,536	-	-	-	-
72	-	9,409,739	9,409,739	-	-	-	-
73	-	9,739,080	9,739,080	-	-	-	-
74	-	10,079,948	10,079,948	-	-	-	-
75	-	10,432,746	10,432,746	-	-	-	-
76	-	10,797,892	10,797,892	-	-	-	-
77	-	11,175,819	11,175,819	-	-	-	-
78	-	11,566,972	11,566,972	-	-	-	-
79	-	11,971,816	11,971,816	-	-	-	-
80	-	12,390,830	12,390,830	-	-	-	-

NOTES TO PROJECTION OF CONTRIBUTIONS

Total payroll is assumed to increase annually at the assumed payroll increase rate shown in the assumption section of this report. Payroll for current employees (employees active as of the actuarial valuation date) has been projected on an employee by employee basis, using expected pay increases and probability of remaining in active employment for future periods.

Employer contributions are related to current employees in the fund as of the Actuarial Valuation Date. To the extent future contributions under the Employer funding policy are made to cover the Normal Cost of providing benefits for future employees, those contributions have been excluded out for purposes of these projections and this report.

Contributions are based on the Funding Policy described in an earlier section of this report. The contributions do not factor in changes in funding policy based on an assumed Employer decision if the projections were to play out in this fashion. The only future events that have been considered were outlined in the funding policy section of the report. Contributions from future employees have not been included. It is assumed that contributions made by future employees will not exceed the Normal Cost of their participation in the Fund. In addition, contributions by the employer on behalf of service for future employees have not been included per the GASB parameters.



PROJECTION OF THE PENSION PLAN'S FIDUCIARY NET POSITION – YEARS 1 TO 30

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (a)+(b)-(c)-(d)+(e)
1	\$ 6,334,369	\$ 710,144	\$ 660,168	\$ 7,775	\$ 389,103	\$ 6,765,673
2	6,765,673	863,031	685,719	7,970	418,990	7,354,006
3	7,354,006	888,050	712,615	8,169	454,427	7,975,699
4	7,975,699	913,829	738,198	8,373	491,933	8,634,890
5	8,634,890	939,519	771,779	8,582	531,451	9,325,498
6	9,325,498	962,810	803,824	8,797	572,833	10,048,519
7	10,048,519	985,142	843,228	9,017	615,915	10,797,332
8	10,797,332	1,007,248	880,019	9,242	660,622	11,575,941
9	11,575,941	1,029,019	947,893	9,473	706,179	12,353,773
10	12,353,773	1,040,288	992,178	9,710	752,089	13,144,261
11	13,144,261	1,028,019	1,030,683	9,953	798,230	13,929,874
12	13,929,874	1,048,347	1,069,477	10,202	845,054	14,743,596
13	14,743,596	1,070,668	1,107,694	10,457	893,648	15,589,761
14	15,589,761	1,094,389	1,146,771	10,718	944,211	16,470,872
15	16,470,872	1,118,588	1,186,602	10,986	996,869	17,388,740
16	17,388,740	1,140,994	1,224,875	11,261	1,051,731	18,345,330
17	18,345,330	1,164,892	1,265,034	11,542	1,108,912	19,342,558
18	19,342,558	1,189,235	1,300,038	11,831	1,168,705	20,388,629
19	20,388,629	292,273	1,343,678	12,127	1,203,539	20,528,635
20	20,528,635	74,204	1,374,642	12,430	1,204,762	20,420,529
21	20,420,529	60,461	1,404,540	12,741	1,197,268	20,260,978
22	20,260,978	51,136	1,425,604	13,059	1,187,092	20,060,543
23	20,060,543	42,665	1,443,151	13,386	1,174,602	19,821,274
24	19,821,274	35,469	1,467,050	13,720	1,159,638	19,535,610
25	19,535,610	28,417	1,477,480	14,063	1,142,306	19,214,789
26	19,214,789	20,843	1,498,461	14,415	1,122,541	18,845,297
27	18,845,297	17,104	1,504,275	14,775	1,100,435	18,443,786
28	18,443,786	13,788	1,507,386	15,145	1,076,510	18,011,553
29	18,011,553	10,662	1,519,867	15,523	1,050,475	17,537,299
30	17,537,299	8,066	1,519,948	15,911	1,022,315	17,031,821

Column b – Contributions on behalf of current employees only as of the Actuarial Valuation Date.

Column d – Based on average administrative expenses in recent years and projected to increase going forward.

Column e – Based on the current expected return on assets. Does not factor in allocation changes.



PROJECTION OF THE PENSION PLAN'S FIDUCIARY NET POSITION – YEARS 31 TO 60

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (a)+(b)-(c)-(d)+(e)
31	\$ 17,031,821	\$ 5,657	\$ 1,513,192	\$ 16,309	\$ 992,503	\$ 16,500,479
32	16,500,479	3,421	1,503,159	16,717	961,252	15,945,276
33	15,945,276	2,398	1,492,930	17,135	928,621	15,366,231
34	15,366,231	1,252	1,474,974	17,563	894,798	14,769,745
35	14,769,745	-	1,453,441	18,002	860,044	14,158,345
36	14,158,345	-	1,427,967	18,452	824,560	13,536,486
37	13,536,486	-	1,398,259	18,914	788,588	12,907,901
38	12,907,901	-	1,364,135	19,386	752,355	12,276,735
39	12,276,735	-	1,325,564	19,871	716,112	11,647,412
40	11,647,412	-	1,282,696	20,368	680,121	11,024,468
41	11,024,468	-	1,235,837	20,877	644,644	10,412,398
42	10,412,398	-	1,185,382	21,399	609,939	9,815,557
43	9,815,557	-	1,131,788	21,934	576,256	9,238,090
44	9,238,090	-	1,075,539	22,482	543,827	8,683,896
45	8,683,896	-	1,017,118	23,044	512,873	8,156,607
46	8,156,607	-	957,049	23,621	483,597	7,659,534
47	7,659,534	-	895,929	24,211	456,179	7,195,573
48	7,195,573	-	834,365	24,816	430,775	6,767,167
49	6,767,167	-	772,992	25,437	407,514	6,376,252
50	6,376,252	-	712,438	26,073	386,492	6,024,234
51	6,024,234	-	653,267	26,724	367,779	5,712,021
52	5,712,021	-	595,990	27,393	351,412	5,440,051
53	5,440,051	-	541,017	28,077	337,408	5,208,364
54	5,208,364	-	488,626	28,779	325,759	5,016,718
55	5,016,718	-	438,983	29,499	316,447	4,864,684
56	4,864,684	-	392,168	30,236	309,445	4,751,725
57	4,751,725	-	348,183	30,992	304,720	4,677,270
58	4,677,270	-	307,062	31,767	302,238	4,640,679
59	4,640,679	-	268,792	32,561	301,961	4,641,287
60	4,641,287	-	233,334	33,375	303,851	4,678,429

Column b – Contributions on behalf of current employees only as of the Actuarial Valuation Date.

Column d – Based on average administrative expenses in recent years and projected to increase going forward.

Column e – Based on the current expected return on assets. Does not factor in allocation changes.



PROJECTION OF THE PENSION PLAN’S FIDUCIARY NET POSITION – YEARS 61 TO 80

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (a)+(b)-(c)-(d)+(e)
61	\$ 4,678,429	\$ -	\$ 200,689	\$ 34,210	\$ 307,868	\$ 4,751,399
62	4,751,399	-	170,857	35,065	313,971	4,859,448
63	4,859,448	-	143,842	35,941	322,115	5,001,780
64	5,001,780	-	119,638	36,840	332,252	5,177,554
65	5,177,554	-	98,209	37,761	344,335	5,385,919
66	5,385,919	-	79,474	38,705	358,315	5,626,055
67	5,626,055	-	63,330	39,673	374,146	5,897,198
68	5,897,198	-	49,631	40,664	391,787	6,198,690
69	6,198,690	-	38,207	41,681	411,206	6,530,008
70	6,530,008	-	28,855	42,723	432,376	6,890,806
71	6,890,806	-	21,346	43,791	455,285	7,280,955
72	7,280,955	-	15,455	44,886	479,933	7,700,547
73	7,700,547	-	10,940	46,008	506,332	8,149,931
74	8,149,931	-	7,564	47,158	534,512	8,629,721
75	8,629,721	-	5,103	48,337	564,517	9,140,798
76	9,140,798	-	3,356	49,546	596,406	9,684,303
77	9,684,303	-	2,149	50,784	630,254	10,261,624
78	10,261,624	-	1,340	52,054	666,150	10,874,380
79	10,874,380	-	812	53,355	704,193	11,524,406
80	11,524,406	-	478	54,689	744,498	12,213,737

NOTES TO PROJECTION OF FIDUCIARY NET POSITION

Total contributions are Employee and Employer contributions anticipated to be made under the funding policy on behalf of employees in the fund as of the Actuarial Valuation Date. The amounts shown were detailed earlier in this section.

Projected benefit payments shown represent only employees active as of the Actuarial Valuation Date. The fund will also be paying benefit payments in the future on behalf of employees hired after the Actuarial Valuation Date, but those have not been estimated for this purpose.

Projected investment earnings are based on the current expected rate of return on plan assets. Administrative expenses are not typically charged on a per employee basis. Administrative expenses shown have not been adjusted to distinguish between current employees and future employees.

The projected Net Position represents assets held or projected to be held on behalf of current employees as of the Actuarial Valuation Date. The fund will also hold assets in the future on behalf of new employees that are not shown here.



ACTUARIAL PRESENT VALUES OF PROJECTED BENEFIT PAYMENTS – YEARS 1 TO 30

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments		Present Value (PV) of Projected Benefit Payments			
		Projected Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	PV of "Funded" Portion of Benefit Payments (6.00%)	PV of "Unfunded" Portion of Benefit Payments (3.57%)	PV of Total Projected Payments Using the Single Discount Rate (6.00%)
1	\$ 6,334,369	\$ 660,168	\$ 660,168	\$ -	\$ 641,212	\$ -	\$ 641,212
2	6,765,673	685,719	685,719	-	628,329	-	628,329
3	7,354,006	712,615	712,615	-	616,014	-	616,014
4	7,975,699	738,198	738,198	-	602,008	-	602,008
5	8,634,890	771,779	771,779	-	593,768	-	593,768
6	9,325,498	803,824	803,824	-	583,417	-	583,417
7	10,048,519	843,228	843,228	-	577,374	-	577,374
8	10,797,332	880,019	880,019	-	568,458	-	568,458
9	11,575,941	947,893	947,893	-	577,643	-	577,643
10	12,353,773	992,178	992,178	-	570,406	-	570,406
11	13,144,261	1,030,683	1,030,683	-	559,002	-	559,002
12	13,929,874	1,069,477	1,069,477	-	547,210	-	547,210
13	14,743,596	1,107,694	1,107,694	-	534,683	-	534,683
14	15,589,761	1,146,771	1,146,771	-	522,213	-	522,213
15	16,470,872	1,186,602	1,186,602	-	509,765	-	509,765
16	17,388,740	1,224,875	1,224,875	-	496,422	-	496,422
17	18,345,330	1,265,034	1,265,034	-	483,677	-	483,677
18	19,342,558	1,300,038	1,300,038	-	468,925	-	468,925
19	20,388,629	1,343,678	1,343,678	-	457,232	-	457,232
20	20,528,635	1,374,642	1,374,642	-	441,291	-	441,291
21	20,420,529	1,404,540	1,404,540	-	425,367	-	425,367
22	20,260,978	1,425,604	1,425,604	-	407,308	-	407,308
23	20,060,543	1,443,151	1,443,151	-	388,982	-	388,982
24	19,821,274	1,467,050	1,467,050	-	373,041	-	373,041
25	19,535,610	1,477,480	1,477,480	-	354,428	-	354,428
26	19,214,789	1,498,461	1,498,461	-	339,114	-	339,114
27	18,845,297	1,504,275	1,504,275	-	321,160	-	321,160
28	18,443,786	1,507,386	1,507,386	-	303,608	-	303,608
29	18,011,553	1,519,867	1,519,867	-	288,794	-	288,794
30	17,537,299	1,519,948	1,519,948	-	272,462	-	272,462

The projected Fiduciary Net Position and the Projected Benefit Payments are based only on the current employee group as of the Actuarial Valuation Date. The development of the Projected Fiduciary Net Position was shown in more detail earlier in this section.



ACTUARIAL PRESENT VALUES OF PROJECTED BENEFIT PAYMENTS – YEARS 31 TO 60

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Projected Benefit Payments		Present Value (PV) of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	PV of "Funded" Portion of Benefit Payments (6.00%)	PV of "Unfunded" Portion of Benefit Payments (3.57%)	PV of Total Projected Payments Using the Single Discount Rate (6.00%)
31	\$ 17,031,821	\$ 1,513,192	\$ 1,513,192	\$ -	\$ 255,897	\$ -	\$ 255,897
32	16,500,479	1,503,159	1,503,159	-	239,812	-	239,812
33	15,945,276	1,492,930	1,492,930	-	224,698	-	224,698
34	15,366,231	1,474,974	1,474,974	-	209,430	-	209,430
35	14,769,745	1,453,441	1,453,441	-	194,691	-	194,691
36	14,158,345	1,427,967	1,427,967	-	180,451	-	180,451
37	13,536,486	1,398,259	1,398,259	-	166,695	-	166,695
38	12,907,901	1,364,135	1,364,135	-	153,422	-	153,422
39	12,276,735	1,325,564	1,325,564	-	140,645	-	140,645
40	11,647,412	1,282,696	1,282,696	-	128,393	-	128,393
41	11,024,468	1,235,837	1,235,837	-	116,701	-	116,701
42	10,412,398	1,185,382	1,185,382	-	105,600	-	105,600
43	9,815,557	1,131,788	1,131,788	-	95,119	-	95,119
44	9,238,090	1,075,539	1,075,539	-	85,275	-	85,275
45	8,683,896	1,017,118	1,017,118	-	76,078	-	76,078
46	8,156,607	957,049	957,049	-	67,533	-	67,533
47	7,659,534	895,929	895,929	-	59,642	-	59,642
48	7,195,573	834,365	834,365	-	52,400	-	52,400
49	6,767,167	772,992	772,992	-	45,797	-	45,797
50	6,376,252	712,438	712,438	-	39,821	-	39,821
51	6,024,234	653,267	653,267	-	34,446	-	34,446
52	5,712,021	595,990	595,990	-	29,647	-	29,647
53	5,440,051	541,017	541,017	-	25,389	-	25,389
54	5,208,364	488,626	488,626	-	21,633	-	21,633
55	5,016,718	438,983	438,983	-	18,335	-	18,335
56	4,864,684	392,168	392,168	-	15,452	-	15,452
57	4,751,725	348,183	348,183	-	12,943	-	12,943
58	4,677,270	307,062	307,062	-	10,768	-	10,768
59	4,640,679	268,792	268,792	-	8,892	-	8,892
60	4,641,287	233,334	233,334	-	7,282	-	7,282

The projected Fiduciary Net Position and the Projected Benefit Payments are based only on the current employee group as of the Actuarial Valuation Date. The development of the Projected Fiduciary Net Position was shown in more detail earlier in this section.



ACTUARIAL PRESENT VALUES OF PROJECTED BENEFIT PAYMENTS – YEARS 61 TO 80

Year	Projected Benefit Payments		Present Value (PV) of Projected Benefit Payments				
	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	PV of "Funded" Portion of Benefit Payments (6.00%)	PV of "Unfunded" Portion of Benefit Payments (3.57%)	PV of Total Projected Payments Using the Single Discount Rate (6.00%)
61	\$ 4,678,429	\$ 200,689	\$ 200,689	\$ -	\$ 5,909	\$ -	\$ 5,909
62	4,751,399	170,857	170,857	-	4,746	-	4,746
63	4,859,448	143,842	143,842	-	3,769	-	3,769
64	5,001,780	119,638	119,638	-	2,958	-	2,958
65	5,177,554	98,209	98,209	-	2,290	-	2,290
66	5,385,919	79,474	79,474	-	1,749	-	1,749
67	5,626,055	63,330	63,330	-	1,315	-	1,315
68	5,897,198	49,631	49,631	-	972	-	972
69	6,198,690	38,207	38,207	-	706	-	706
70	6,530,008	28,855	28,855	-	503	-	503
71	6,890,806	21,346	21,346	-	351	-	351
72	7,280,955	15,455	15,455	-	240	-	240
73	7,700,547	10,940	10,940	-	160	-	160
74	8,149,931	7,564	7,564	-	104	-	104
75	8,629,721	5,103	5,103	-	66	-	66
76	9,140,798	3,356	3,356	-	41	-	41
77	9,684,303	2,149	2,149	-	25	-	25
78	10,261,624	1,340	1,340	-	15	-	15
79	10,874,380	812	812	-	8	-	8
80	11,524,406	478	478	-	5	-	5

NOTES TO THE ACTUARIAL PRESENT VALUE OF PROJECTED BENEFIT PAYMENTS

The projected Fiduciary Net Position and the Projected Benefit Payments are based only on the current employee group as of the Actuarial Valuation Date. The development of the Net Position was shown in more detail earlier in this section.

The Funded and Unfunded portion of the Benefit Payments is split based on the time that the Fiduciary Net Position is projected to go to \$0 (based on assets for current fund members).

The Present Value of the Funded portion and Unfunded portion of the benefit payments has been determined separately. The PV of the funded portion of the benefit payments uses the assumption for the expected rate of return on plan assets. The PV of the unfunded portion of the benefit payments has been determined using the high quality Municipal Bond Rate as of the Measurement Date as described in the Actuarial Assumption section of the report.

The discount rate used for GASB purposes is the rate that is when applied to the total Projected Benefit payments results in a present value that equals the sum of the present value of the funded and unfunded payments. The discount rate has been round to four decimal places. Therefore, the resulting present value comparisons might show a slight difference due to rounding.