FINANCE COMMITTEE MEETING AGENDA

MEETING DATE: Monday, July 10, 2017

MEETING TIME: 5:30 p.m.

MEETING LOCATION: North Aurora Village Hall (25 E. State St., North Aurora, IL 60542)

CALL TO ORDER

ROLL CALL

AUDIENCE COMMENTS

APPROVAL OF MINUTES

1. Approval of the Finance Committee Minutes dated 12/12/2016

NEW BUSINESS

1. Discussion of Upcoming Police Pension Valuation

OLD BUSINESS

OTHER INFORMATION

TRUSTEE COMMENTS

ADJOURN

Village of North Aurora
Memorandum

To: Finance Committee

From: Bill Hannah, Finance Director

CC: Steve Bosco, Village Administrator

Date: July 5, 2017

RE: Police Pension Actuarial Valuation

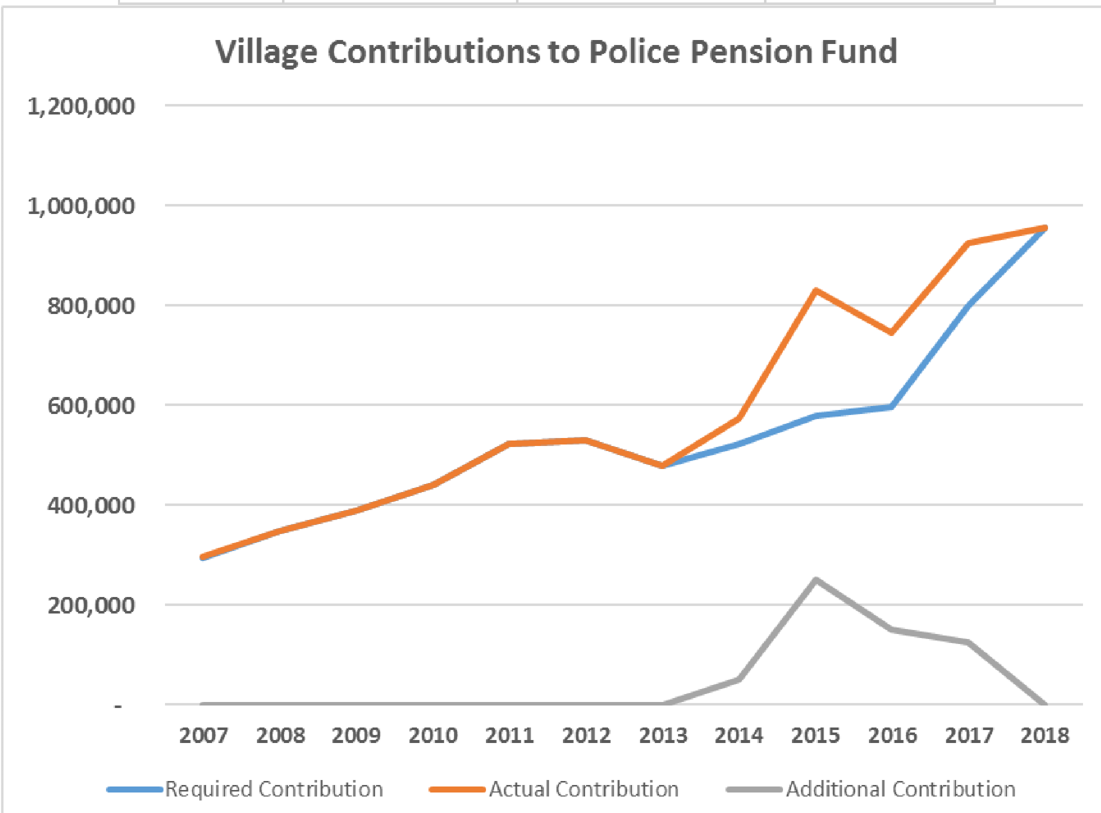
Background

Per State law, the Village provides pension benefits for its sworn police officers once they retire and become eligible. The Village has set up a Police Pension Trust Fund to administer those benefits, to receive monies from employee contributions and Village contributions/tax levy, and also to invest those monies over time. The Trust Fund is managed by the Police Pension Board which consists per State law of two active police pension members, one retired member, and two members appointed by the Village. As of May 31, 2016 the last valuation there were 29 active members and 15 retirees or other vested/beneficiaries. Other non-police employees are covered under IMRF which is a separate defined benefit system with different benefits and requirements.

While actively working, sworn officers contribute 9.91% of their applicable salary to the Police Pension Fund. In order to determine how much the Village needs to contribute through its annual tax levy in order to fund future pension benefits, the Village has an actuarial valuation done in order calculate the Village's Actuarially Determined Contribution (ADC). This valuation is based on many assumptions regarding future salary increases, projected investment rates of return, mortality rates, etc. The most recent valuation of the fund has been attached as of May 31, 2016.

As of May 31, 2016 the trust fund had a total actuarial accrued liability of $24,499,572. The fund also had actuarial value of assets of $14,761,153. This means that the fund had an unfunded actuarial accrued liability (UAAL) of $9,738,419 which translates to a funded ratio on an actuarial basis of 60.25%. The last valuation resulted in a total required Village of contribution of $955,822. As such, the Village included $956,000 as its police pension tax levy in December, 2016. Over the last four years the Village had made additional contributions to the Police Pension Fund over and above the required amount. The chart and graph below illustrate the required and actual contributions made by the Village over the last 12 years:

FYE	Required Contribution	Actual Contribution	Additional Contribution
2007	295,217	296,000	783
2008	347,382	348,000	618
2009	388,247	389,000	753
2010	439,842	440,000	158
2011	523,264	524,000	736
2012	529,375	530,000	625
2013	479,202	480,000	798
2014	523,413	574,000	50,587
2015	579,311	830,000	250,689
2016	596,578	747,000	150,422
2017	799,095	925,000	125,905
2018	955,822	956,000	178



Per State statute the Village is required to be 90% funded by 2041. This state law was passed in 2011 providing for a 30-year period. However, the Village adopted a Resolution in 2011 with a 100% funding goal by 2041. Essentially, this means that the Village has 25 years remaining to contribute the UAAL of $9,738,419 (which will change in total year-to-year). This is actually done as a level percentage of payroll meaning that amortization payments increase over the years due to projected payroll growth assumptions.

Upcoming Police Pension Valuation and Assumption Changes

The Village is preparing to have the actuarial valuation performed as of May 31, 2017. Prior to doing an actuarial valuation it is important to determine if the assumptions that will be made in the valuation are still reasonable and appropriate and if changes should be made. Several changes have been made over the last two years and discussed with the Board as detailed below:

May 31, 2015 Valuation Assumption Changes

- Rate of Return on Investments Assumption was decreased from 7.5% to 7.0%
- Salary increase assumption was decreased from 5.5% to 5.0%
- Mortality rates, disability rates, turnover rates and retirement rates updated to the recently published rates by the Illinois Department of Insurance

May 31, 2016 Valuation Assumption Changes

- Mortality assumptions from the RP-2000 table were updated to present to account for incremental annual improvements

Our actuary from Foster & Foster has identified two assumptions that merit discussion for the May 31, 2017 valuation.

1. Currently, the salary increase assumption is 5.0%. This is the assumption upon which an officer's pay will increase every year. Our actuary recommends converting this to a table where officers receive higher salary percentage increases early in their career, and decrease over time. The table is based on the DOI's experience study in 2012 where salary increase percentages would start at 11% then grade down to 4% over time. The next effect of this change would be a slight decrease in the Village's actuarial liability and contribution requirement.

2. Currently, the payroll growth rate assumption is 5%. This is the assumption that reflects the payroll growth rate for the entire sworn police department. Since the amortization of the UAAL is based on a level percentage of payroll, meaning the payment towards the UAAL is always the same percentage of payroll, that means lower payments are made in the early years of the remaining amortization period versus the out years, resulting in significant back-loading in the contribution. You can see the effect of this in the attached chart. At 5%, the payment starts out at $484,027 but increases to $1,561,036 in 2040. At a 3% assumption however, the payment starts out at $592,705 and ends at $1,204,847. Essentially paying more now to pay less in the future. Keep in mind this is only the amortization of the unfunded liability, not including the Normal Cost associated with the annual contribution. The additional benefit of a lower payroll growth percentage would be additional investment income on the funds in order to reduce the overall liability.

Our actuary recommends that a 3% payroll growth factor be used for the assumption, which would have the effect of about a $100,000 increase in the total village contribution next fiscal year for the Police Pension Fund (for the 2017 tax levy to be received in FY 2018-19). Another viable and acceptable option would be to decrease the payroll growth assumption next year to say 4.0%, then 3.0% the following fiscal year. This would spread the impact out over two years to a fiscal year when greater budgetary flexibility exists due to the expiration of a sales tax rebate agreement during FY 2019-20. Committee discussion on this topic is requested. Additional information and background info will be provided at the meeting.

North Aurora Police Pension Plan
Projected Amortization Payments

2016 Unfunded Liability $9,738,419

Assumptions:

Investment Return	7.0%	Investment Retur	7.0%	Investment Retu	7.0%
Payroll Growth	5.0%	Payroll Growth	3.0%	Payroll Growth	0.0%

	Payroll Growth = 5.0%			**Payroll Growth = 3.0%**			**Payroll Growth = 0.0%**		
Year	Unfunded Liability	Amortization Payment	Remaining Years	Unfunded Liability	Amortization Payment	Remaining Years	Unfunded Liability	Amortization Payment	Remaining Years
2016	$9,738,419	$484,027	25	$9,738,419	$592,705	25	$9,738,419	$780,990	25
2017	$9,902,199	$508,228	24	$9,785,914	$610,486	24	$9,584,449	$780,989	24
2018	$10,051,549	$533,640	23	$9,817,708	$628,801	23	$9,419,702	$780,989	23
2019	$10,184,163	$560,322	22	$9,832,130	$647,665	22	$9,243,423	$780,990	22
2020	$10,297,510	$588,338	21	$9,827,378	$667,094	21	$9,054,803	$780,989	21
2021	$10,388,814	$617,755	20	$9,801,504	$687,107	20	$8,852,981	$780,990	20
2022	$10,455,033	$648,642	19	$9,752,405	$707,721	19	$8,637,030	$780,989	19
2023	$10,492,838	$681,075	18	$9,677,812	$728,952	18	$8,405,964	$780,989	18
2024	$10,498,586	$715,128	17	$9,575,280	$750,821	17	$8,158,723	$780,990	17
2025	$10,468,300	$750,885	16	$9,442,171	$773,345	16	$7,894,174	$780,989	16
2026	$10,397,634	$788,429	15	$9,275,644	$796,546	15	$7,611,108	$780,989	15
2027	$10,281,849	$827,850	14	$9,072,635	$820,442	14	$7,308,227	$780,990	14
2028	$10,115,779	$869,243	13	$8,829,847	$845,056	13	$6,984,144	$780,989	13
2029	$9,893,794	$912,705	12	$8,543,726	$870,407	12	$6,637,376	$780,990	12
2030	$9,609,765	$958,340	11	$8,210,451	$896,519	11	$6,266,333	$780,990	11
2031	$9,257,025	$1,006,257	10	$7,825,907	$923,415	10	$5,869,317	$780,989	10
2032	$8,828,322	$1,056,570	9	$7,385,666	$951,117	9	$5,444,511	$780,990	9
2033	$8,315,775	$1,109,399	8	$6,884,967	$979,651	8	$4,989,967	$780,989	8
2034	$7,710,822	$1,164,868	7	$6,318,688	$1,009,040	7	$4,503,606	$780,989	7
2035	$7,004,171	$1,223,112	6	$5,681,323	$1,039,311	6	$3,983,200	$780,989	6
2036	$6,185,733	$1,284,268	5	$4,966,953	$1,070,491	5	$3,426,366	$780,990	5
2037	$5,244,568	$1,348,481	4	$4,169,214	$1,102,605	4	$2,830,552	$780,989	4
2038	$4,168,813	$1,415,905	3	$3,281,272	$1,135,684	3	$2,193,032	$780,989	3
2039	$2,945,612	$1,486,700	2	$2,295,779	$1,169,754	2	$1,510,886	$780,989	2
2040	$1,561,036	$1,561,036	1	$1,204,847	$1,204,847	1	$780,990	$780,990	1
2041	$0		0	$0		0	$0		0
Ratio 2040 Payment to 2016 Payment		323%			203%			100%	

VILLAGE OF NORTH AURORA
POLICE PENSION FUND

ACTUARIAL VALUATION
AS OF JUNE 1, 2016

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDED MAY 31, 2018

August 19, 2016

Village of North Aurora
c/o Bill Hannah, Finance Director
25 E. State St.
North Aurora, IL 60542

Re: Village of North Aurora Police Pension Fund

Dear Mr. Hannah:

We are pleased to present to the Village this report of the annual actuarial valuation of the Village of North Aurora Police Pension Fund. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Article 3, Illinois Pension Code, as well as applicable federal laws and regulations. Due to an actuarial transition, we were not able to perform a full review of the actuarial assumptions prior to the completion of this report and have relied on many of the assumptions used by the prior actuary. A full review of every assumption will be completed prior to next year's valuation. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Village, financial reports prepared by the custodian bank and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The undersigned is familiar with the immediate and long-term aspects of pension valuations and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the Village of North Aurora, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Village of North Aurora Police Pension Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 630-620-0200.

Respectfully submitted,

Foster & Foster, Inc.

By: ______________________________
Jason L. Franken
Enrolled Actuary #14-6888

JLF/lke
Enclosures

TABLE OF CONTENTS

SUMMARY OF REPORT

The regular annual actuarial valuation of the Village of North Aurora Police Pension Fund, performed as of June 1, 2016, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ended May 31, 2018.

The contribution requirements, compared with those set forth in the June 1, 2015 actuarial report prepared by Timothy W. Sharpe, are as follows:

Valuation Date	6/1/2016	6/1/2015
Applicable to Fiscal Year Ending	5/31/2018	5/31/2017
Total Required Contribution	$1,208,097	$1,048,701
% of Projected Annual Payroll	47.4%	44.6%
Member Contributions (Est.)	252,275	249,606
% of Projected Annual Payroll	9.91%	10.6%
Village Required Contribution	955,822	799,095
% of Projected Annual Payroll	37.5%	34.0%

As you can see, the Total Required Contribution, when expressed as a percentage of annual payroll, shows an increase when compared to the results determined in the June 1, 2015 actuarial valuation report. This increase is largely attributable to changes in actuarial assumptions and methods and unfavorable plan experience during the year.

Unfavorable sources of plan experience included a 5.77% investment return (Actuarial basis) which fell short of the 7.00% assumption, unfavorable retirement experience, no turnover or inactive mortality, and higher than expected salary increases. The unfavorable experience was offset by a reduction in the Total Required Contribution as a percentage of payroll attributable to a higher than assumed increase in annual payroll.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and answer any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By:______________________________

Jason L. Franken, FSA, EA, MAAA

Plan Changes Since Prior Valuation

No plan changes have occurred since the prior valuation.

Actuarial Assumption/Method Changes Since Prior Valuation

The following assumption was changed since the prior valuation:

- The mortality assumptions were updated to include a projection to the valuation date using Scale BB.

Since the prior valuation the following methods have been updated:

- The administrative expenses have been included to determine the annual contribution to the fund.

- Interest has been excluded in the determination of the expected member contributions to determine the net contribution requirement for the Village.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump 6/1/2016	Old Assump 6/1/2016	6/1/2015
A. Participant Data			
Number Included			
Actives	29	29	28
Service Retirees	11	11	9
Beneficiaries	1	1	1
Disability Retirees	0	0	0
Terminated Vested	3	3	3
Total	44	44	41
Total Annual Payroll	$2,545,665	$2,545,665	$2,353,959
Payroll Under Assumed Ret. Age	2,545,665	2,545,665	2,353,959
Annual Rate of Payments to:			
Service Retirees	655,794	655,794	532,172
Beneficiaries	42,508	42,508	42,508
Disability Retirees	0	0	0
Terminated Vested	60,775	60,775	60,775
B. Assets			
Actuarial Value	14,761,153	14,761,153	13,627,099
Market Value	14,084,700	14,084,700	13,754,319
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	15,988,167	15,491,212	N/A
Disability Benefits	1,586,127	1,543,810	N/A
Death Benefits	313,695	327,302	N/A
Vested Benefits	1,894,990	1,843,816	N/A
Service Retirees	9,702,968	9,260,455	N/A
Beneficiaries	378,965	359,048	N/A
Disability Retirees	0	0	N/A
Terminated Vested	724,927	697,648	N/A
Total	30,589,839	29,523,291	N/A

C. Liabilities - (Continued)	New Assump 6/1/2016	Old Assump 6/1/2016	6/1/2015
Present Value of Future Salaries	25,970,117	25,955,976	N/A
Present Value of Future Member Contributions	2,573,639	2,572,237	N/A
Normal Cost (Retirement)	453,199	439,270	N/A
Normal Cost (Disability)	85,733	83,972	N/A
Normal Cost (Death)	12,894	13,443	N/A
Normal Cost (Vesting)	85,284	82,879	N/A
Total Normal Cost [1]	637,110	619,564	565,189
Present Value of Future Normal Costs	6,090,267	5,920,554	N/A
Accrued Liability (Retirement)	11,470,127	11,113,124	N/A
Accrued Liability (Disability)	730,327	705,744	N/A
Accrued Liability (Death)	204,986	214,041	N/A
Accrued Liability (Vesting)	1,287,272	1,252,677	N/A
Accrued Liability (Inactives)	10,806,860	10,317,151	N/A
Total Actuarial Accrued Liability [1]	24,499,572	23,602,737	22,233,707
Unfunded Actuarial Accrued Liability (UAAL)	9,738,419	8,841,584	8,606,608
Funded Ratio (AVA / AL)	60.25%	62.54%	61.29%

D. Actuarial Present Value of Accrued Benefits

Vested Accrued Benefits			
Inactives	10,806,860	10,317,151	N/A
Actives	2,901,820	2,742,113	N/A
Member Contributions	2,396,635	2,396,635	N/A
Total	16,105,315	15,455,899	N/A
Non-vested Accrued Benefits	929,536	915,693	N/A
Total Present Value Accrued Benefits	17,034,851	16,371,592	N/A
Funded Ratio (MVA / PVAB)	82.68%	86.03%	N/A
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	N/A	
Assumption Changes	663,259	N/A	
New Accrued Benefits	0	N/A	
Benefits Paid	0	N/A	
Interest	0	N/A	
Other	0	N/A	
Total	663,259	N/A	

[1] Values reported for 6/1/2015 are consistent with the report issued by Timothy W. Sharpe.

	New Assump	Old Assump	
Valuation Date	6/1/2016	6/1/2016	6/1/2015
Applicable to Fiscal Year Ending	5/31/2018	5/31/2018	5/31/2017
E. Pension Cost			
Normal Cost (with interest)	$681,708	$662,933	$604,752
% of Total Annual Payroll [1]	26.8	26.0	25.7
Administrative Expenses (with interest)	8,480	0	0 [2]
% of Total Annual Payroll [1]	0.3	0.0	0.0
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 25 years (as of 6/1/2016, with interest)	517,909	470,214	443,949
% of Total Annual Payroll [1]	20.3	18.5	18.9
Total Required Contribution	1,208,097	1,133,147	1,048,701 [2]
% of Total Annual Payroll [1]	47.4	44.5	44.6
Expected Member Contributions	252,275	269,934	249,606 [2]
% of Total Annual Payroll [1]	9.91	10.6	10.6
Expected Village Contribution	955,822	863,213	799,095 [2]
% of Total Annual Payroll [1]	37.5	33.9	34.0

F. Past Contributions

Plan Years Ending:	5/31/2016
Total Required Contribution	838,638
Village Requirement	596,578
Actual Contributions Made:	
Members (excluding buyback)	242,060
Village	747,000
Total	989,060

G. Net Actuarial (Gain)/Loss	50,513

[1] Contributions developed as of 6/1/2016 are expressed as a percentage of total annual payroll at 6/1/2016 of $2,545,665.

[2] Values reported for 5/31/2017 are consistent with the report issued by Timothy W. Sharpe, which did not consider the administrative expenses as part of the minimum calculation. The report also reflected interest crediting on Member Contributions to the end of the year, while the estimated Member Contributions as of 6/1/2016 do not reflect interest.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

Year	Projected Unfunded Accrued Liability
2016	9,738,419
2017	9,902,199
2018	10,051,549
2024	10,498,593
2030	9,609,786
2035	7,004,214
2041	0

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		Actual	Assumed
Year Ended	5/31/2016	7.61%	5.00%
Year Ended	5/31/2015	3.70%	5.50%
Year Ended	5/31/2014	N/A	N/A

(ii) 3 Year Comparison of Investment Return on Actuarial Value

		Actual	Assumed
Year Ended	5/31/2016	5.77%	7.00%
Year Ended	5/31/2015	N/A	N/A
Year Ended	5/31/2014	N/A	N/A

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of the Illinois Pension Code and adhere to the Actuarial Standards of Practice. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Jason L. Franken

Jason L. Franken, FSA, EA, MAAA
Enrolled Actuary #14-6888

DEVELOPMENT OF JUNE 1, 2016 AMORTIZATION PAYMENT

(1)	Unfunded Actuarial Accrued Liability as of June 1, 2015	$8,606,608
(2)	Sponsor Normal Cost developed as of June 1, 2015	331,912
(3)	Expected administrative expenses for the year ended May 31, 2016	0
(4)	Expected interest on (1), (2) and (3)	625,696
(5)	Sponsor contributions to the System during the year ended May 31, 2016	747,000
(6)	Expected interest on (5)	26,145
(7)	Expected Unfunded Actuarial Accrued Liability[1] as of May 31, 2016, (1)+(2)+(3)+(4)-(5)-(6)	8,791,071
(8)	Change to UAAL due to Assumption Change	896,835
(9)	Change to UAAL due to Actuarial (Gain)/Loss	50,513
(10)	Unfunded Accrued Liability as of June 1, 2016	9,738,419

Date Established	Years Remaining	6/1/2016 Amount	Amortization Amount
6/1/2016	25	9,738,419	484,027

[1] Components of the Expected Unfunded Actuarial Accrued Liability shown (Items 1 through 6) are consistent with the report issued by Timothy W. Sharpe.

PROJECTION OF BENEFIT PAYMENTS

Year	Payments for Current Actives	Payments for Current Inactives	Total Payments
2016	31,665	692,413	724,078
2017	59,690	704,804	764,494
2018	90,456	723,804	814,260
2019	135,945	765,732	901,677
2020	197,242	778,451	975,693
2021	276,095	796,251	1,072,346
2022	395,972	808,067	1,204,039
2023	512,064	848,572	1,360,636
2024	644,269	858,156	1,502,425
2025	783,407	866,061	1,649,468
2026	907,836	872,170	1,780,006
2027	1,054,585	876,425	1,931,010
2028	1,220,519	878,760	2,099,279
2029	1,388,191	879,145	2,267,336
2030	1,573,426	877,583	2,451,009
2031	1,765,471	874,165	2,639,636
2032	1,960,233	868,984	2,829,217
2033	2,148,781	862,053	3,010,834
2034	2,321,303	853,418	3,174,721
2035	2,487,751	843,093	3,330,844
2036	2,647,581	830,981	3,478,562
2037	2,793,449	816,969	3,610,418
2038	2,920,022	801,041	3,721,063
2039	3,054,501	783,193	3,837,694
2040	3,181,916	763,332	3,945,248
2041	3,306,890	741,408	4,048,298
2042	3,420,769	717,482	4,138,251
2043	3,513,401	691,607	4,205,008
2044	3,611,847	663,878	4,275,725
2045	3,695,725	634,459	4,330,184
2046	3,776,940	603,522	4,380,462
2047	3,845,915	571,160	4,417,075
2048	3,895,736	537,506	4,433,242
2049	3,936,230	502,646	4,438,876
2050	3,967,085	466,717	4,433,802
2051	3,988,413	430,053	4,418,466
2052	3,999,521	392,874	4,392,395
2053	3,999,464	355,356	4,354,820
2054	3,987,029	317,899	4,304,928
2055	3,961,453	281,001	4,242,454

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate	RP-2000 Combined Healthy Mortality with a blue collar adjustment, projected to the valuation date with Scale BB.
Disabled Mortality Rate	RP-2000 Disabled Retiree Mortality, projected to the valuation date with Scale BB. Based on studies of public safety pension plans, we believe this assumption sufficiently accommodates expected future mortality improvements.
Interest Rate	7.00% per year compounded annually, net of investment related expenses.
Retirement Age	See table on following page. This is based on an experience study performed in 2012.
Disability Rate	See table on following page. 70% of the disabilities are assumed to be in the line of duty. This is based on an experience study performed in 2012.
Termination Rate	See table on following page. This is based on an experience study performed in 2012.
Salary Increases	5.00% per year.
Payroll Growth	5.00% per year.
Cost-of-Living Adjustment	Tier 1: 3.00% per year after age 55. Those that retire prior to age 55 receive an increase of 1/12 of 3.00% for each full month since benefit commencement upon reaching age 55. Tier 2: 1.25% per year after the later of attainment of age 60 or first anniversary of retirement.
Administrative Expenses	Expenses paid out of the fund other than investment-related expenses are assumed to be equal to those paid in the previous year.
Marital Status	80% of Members are assumed to be married.
Spouse's Age	Males are assumed to be three years older than females.

% Terminating During the Year		% Becoming Disabled During the Year		% Retiring During the Year	
Age	Rate	Age	Rate	Age	Rate
15 - 24	10.00%	20	0.05%	<=49	0%
25	7.50%	25	0.05%	50 - 54	20%
26 - 27	6.25%	30	0.22%	55 - 59	25%
28 - 31	5.00%	35	0.26%	60 - 62	33%
32 - 34	4.00%	40	0.40%	63 - 69	50%
35 - 37	3.00%	45	0.65%	>=70	100%
38 - 49	2.00%	50	0.95%		
>=50	3.50%	55	1.30%		
		60	1.65%		
		65	2.00%		

Funding Method

Entry Age Normal Cost Method.

Actuarial Asset Method

Investment gains and losses are smoothed over a 5-year period.

Amortization Method

The UAAL is amortized according to a Level Percentage of Payroll method over a period ending in 2041.

VALUATION NOTES

<u>Total Annual Payroll</u> is the projected annual rate of pay for the fiscal year following the valuation date of all covered members.

<u>Present Value of Benefits</u> is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

<u>Normal (Current Year's) Cost</u> is the current year's cost for benefits yet to be funded.

<u>Unfunded Accrued Liability</u> is a liability which arises when a pension plan is initially established or improved and such establishment or improvement is applicable to all years of past service.

<u>Total Required Contribution</u> is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability by 2041. The required amount is adjusted for interest according to the timing of contributions during the year.

<u>Entry Age Normal Cost Method</u> - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

ACTUARIAL ASSET VALUATION
May 31, 2016

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of the Market Value of Assets.

Gains/Losses Not Yet Recognized

Plan Year		Amounts Not Yet Recognized by Valuation Year				
Ending	Gain/(Loss)	2016	2017	2018	2019	2020
5/31/2013	472,558	94,512	0	0	0	0
5/31/2014	310,162	124,065	62,032	0	0	0
5/31/2015	(181,629)	(108,977)	(72,652)	(36,326)	0	0
5/31/2016	(982,566)	(786,053)	(589,540)	(393,026)	(196,513)	0
Total		(676,453)	(600,160)	(429,352)	(196,513)	0

Development of Investment Gain/Loss

Market Value of Assets, 5/31/2015	13,754,319
Contributions Less Benefit Payments & Administrative Expenses	338,304
Expected Investment Earnings [1]	974,643
Actual Net Investment Earnings	(7,923)
2015 Actuarial Investment Gain/(Loss)	(982,566)

[1] Expected Investment Earnings = 7.00% x (13,754,319 + 0.5 x 338,304)

Development of Actuarial Value of Assets

Market Value of Assets, 5/31/2016	14,084,700
(Gains)/Losses Not Yet Recognized	676,453
Actuarial Value of Assets, 5/31/2016	14,761,153
(A) 5/31/2015 Actuarial Assets:	13,627,099
(I) Net Investment Income:	
1. Interest and Dividends	601,906
2. Realized Gains (Losses)	(2,990)
3. Change in Actuarial Value	219,069
4. Investment Expenses	(22,235)
Total	795,750
(B) 5/31/2016 Actuarial Assets:	14,761,153
Actuarial Asset Rate of Return = (2 x I) / (A + B - I):	5.77%
Market Value of Assets Rate of Return:	-0.06%
6/1/2016 Limited Actuarial Assets:	14,761,153
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(169,988)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
May 31, 2016
Actuarial Asset Basis

INCOME		
Contributions:		
Member	242,060	
Village	747,000	
Total Contributions		989,060
Earnings from Investments		
Interest & Dividends	601,906	
Net Realized Gain (Loss)	(2,990)	
Miscellaneous Income	0	
Change in Actuarial Value	219,069	
Total Earnings and Investment Gains		817,985
EXPENSES		
Administrative Expenses:		
Investment Related [1]	22,235	
Other	7,925	
Total Administrative Expenses		30,160
Distributions to Members:		
Benefit Payments	642,831	
Refund of Contributions/Transfers	0	
Total Distributions		642,831
Change in Net Assets for the Year		1,134,054
Net Assets Beginning of the Year		13,627,099
Net Assets End of the Year [2]		14,761,153

[1] Investment Related expenses include investment advisory, custodial and performance monitoring fees.
[2] Net Assets may be limited for actuarial consideration

STATISTICAL DATA [1]

	6/1/2013	6/1/2014	6/1/2015	6/1/2016
Actives - Tier 1				
Number	N/A	N/A	26	24
Average Current Age	N/A	N/A	N/A	41.4
Average Age at Employment	N/A	N/A	N/A	26.3
Average Past Service	N/A	N/A	N/A	15.1
Average Annual Salary	N/A	N/A	N/A	$92,976
Actives - Tier 2				
Number	N/A	N/A	2	5
Average Current Age	N/A	N/A	N/A	29.1
Average Age at Employment	N/A	N/A	N/A	28.1
Average Past Service	N/A	N/A	N/A	1.0
Average Annual Salary	N/A	N/A	N/A	$62,847
Service Retirees				
Number	N/A	N/A	9	11
Average Current Age	N/A	N/A	66.8	65.1
Average Annual Benefit	N/A	N/A	$59,130	$59,618
Beneficiaries				
Number	N/A	N/A	1	1
Average Current Age	N/A	N/A	71.5	72.5
Average Annual Benefit	N/A	N/A	$42,508	$42,508
Disability Retirees				
Number	N/A	N/A	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
Terminated Vested				
Number	N/A	N/A	3	3
Average Current Age	N/A	N/A	53.4	54.4
Average Annual Benefit	N/A	N/A	$20,258	$20,258

[1] Foster & Foster does not have enough historical data to include complete data prior to 6/1/2016. We will add historical data going forward.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	1	0	0	0	0	0	0	0	0	0	0	1
25 - 29	1	0	1	0	0	0	0	0	0	0	0	2
30 - 34	1	0	0	0	0	1	1	0	0	0	0	3
35 - 39	0	0	0	0	0	1	6	1	0	0	0	8
40 - 44	0	0	0	1	0	1	1	5	1	0	0	9
45 - 49	0	0	0	0	0	0	0	2	2	0	0	4
50 - 54	0	0	0	0	0	0	0	1	0	1	0	2
55 - 59	0	0	0	0	0	0	0	0	0	0	0	0
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	1	1	0	3	8	9	3	1	0	29

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 6/1/2015	28
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
ii. Non-vested or full lump sum distribution received	0
iii. Transferred service to other fund	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. Continuing participants	26
g. New entrants	3
h. Total active life participants in valuation	29

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested Deferred	Total
a. Number prior valuation	9	1	0	3	13
Retired	2	0	0	0	2
Vested Deferred	0	0	0	0	0
Death, With Survivor	0	0	0	0	0
Death, No Survivor	0	0	0	0	0
Disabled	0	0	0	0	0
Refund of Contributions	0	0	0	0	0
Rehires	0	0	0	0	0
Expired Annuities	0	0	0	0	0
Data Corrections	0	0	0	0	0
Hired/Termed in Same Year	0	0	0	0	0
b. Number current valuation	11	1	0	3	15

SUMMARY OF CURRENT PLAN

Article 3 Pension Fund	The Plan is established and administered as prescribed by "Article 3. Police Pension Fund – Municipalities 500,000 and Under" of the Illinois Pension Code.
Credited Service	Complete years of service as a sworn police officer employed by the Village.
Normal Retirement	
Date	**Tier 1**: Age 50 and 20 years of Credited Service. **Tier 2:** Age 55 with 10 years of service.
Benefit	**Tier 1:** 50% of annual salary attached to rank on last day of service plus 2.50% of annual salary for each year of service over 20 years, up to a maximum of 75% of salary. The minimum monthly benefit is $1,000 per month. **Tier 2**: 2.50% per year of service times the average salary for the eight consecutive years prior to retirement times the number of years of service. The maximum benefit is 75% of average salary.
Form of Benefit	**Tier 1:** For married retirees, an annuity payable for the life of the Member; upon the death of the member, 100% of the Member's benefit payable to the spouse until death. For unmarried retirees, the normal form is a Single Life Annuity. **Tier 2**: Same as above, but with 66 2/3% of benefit continued to spouse.
Cost-of-Living Adjustment	**Tier 1:** An annual increase equal to 3.00% per year after age 55. Those that retire prior to age 55 receive an increase of 1/12 of 3.00% for each full month since benefit commencement upon reaching age 55. **Tier 2**: An annual increase each January 1 equal to 3.00% per year or one-half of the annual unadjusted percentage increase in the consumer price index-u for the 12 months ending with the September preceding each November 1, whichever is less, of the original pension after the attainment of age 60 or first anniversary of pension start date whichever is later.

Disability Benefit

Eligibility	Total and permanent as determined by the Board of Trustees.
Benefit Amount	A maximum of: a.) 65% of salary attached to the rank held by Member on last day of service, and; b.) The monthly retirement pension that the Member is entitled to receive if he or she retired immediately. For non-service connected disabilities, a benefit of 50% of salary attached to rank held by Member on last day of service.

Pre-Retirement Death Benefit

Service Incurred	100% of salary attached to rank held by Member on last day of service.
Non-Service Incurred	A maximum of: a.) 50% of salary attached to the rank held by Member on last day of service, and; b.) The monthly retirement pension earned by the deceased Member at the time of death, regardless of whether death occurs before or after age 50. For non-service deaths with less than 10 years of service, a refund of member contributions is provided.

Contributions

Employee	9.91% of Salary.
Village	Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability over a period ending in 2041.

Vesting (Termination)

Less than 10 years	Refund of Member Contributions.
10 or more years	Either the termination benefit, payable upon reaching age 60, provided contributions are not withdrawn, or a refund of member contributions. The termination benefit is 2.50% of annual salary held in the year prior to termination times credited service.

Board of Trustees	The Board consists of two members appointed by the Village, two active Members of the Police Department elected by the Membership and one retired Member of the Police Department elected by the Membership.

STATEMENT OF FIDUCIARY NET POSITION
May 31, 2016

ASSETS	MARKET VALUE
Cash and Cash Equivalents:	
Money Market	365,193
Cash	9,444
Total Cash and Equivalents	374,637
Receivables:	
Accrued Past Due Interest	79,100
Total Receivable	79,100
Investments:	
U.S. Gov't and Agency Obligations	2,672,333
Stocks	1,615,657
Corporate Bonds	2,542,165
Municipal Obligations	688,679
Mutual Funds	6,060,953
Closed End - Equity - ETF	48,511
Total Investments	13,628,298
Other Assets	2,725
Total Assets	14,084,760
LIABILITIES	
Liabilities:	
Payable:	
Accounts Payable	60
Total Liabilities	60
Net Assets:	
Active and Retired Members' Equity	14,084,700
NET POSITION RESTRICTED FOR PENSIONS	14,084,700
TOTAL LIABILITIES AND NET ASSETS	14,084,760

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED May 31, 2016
Market Value Basis

ADDITIONS		
Contributions:		
Member	242,060	
Village	747,000	
Total Contributions		989,060
Investment Income:		
Miscellaneous Income	0	
Net Realized Gain (Loss)	(2,990)	
Unrealized Gain (Loss)	(584,604)	
Net Increase in Fair Value of Investments		(587,594)
Interest & Dividends		601,906
Less Investment Expense [1]		(22,235)
Net Investment Income		(7,923)
Total Additions		981,137
DEDUCTIONS		
Distributions to Members:		
Benefit Payments	642,831	
Refund of Contributions/Transfers	0	
Total Distributions		642,831
Administrative Expenses		7,925
Total Deductions		650,756
Net Increase in Net Position		330,381
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		13,754,319
End of the Year		14,084,700

[1] Investment Related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended May 31, 2016)

Plan Description

Plan Administration
The Plan is administered by a Board of Trustees comprised of:
a.) Two members appointed by the Village,
b.) Two active Members of the Police Department elected by the Membership, and
c.) One retired Member of the Police Department elected by the Membership.

Plan Membership as of June 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12
Inactive Plan Members Entitled to but Not Yet Receiving Benefits	3
Active Plan Members	29
	44

Benefits Provided
The Plan provides retirement, termination, disability and death benefits.
Normal Retirement:
Age: Tier 1: Age 50 and 20 years of service.
Tier 2: Age 55 with 10 years of service.
Benefit: 2.50% of Average Final Compensation times Credited Service.
Early Retirement:
Age: Tier 1: Age 60 and 8 years of service.
Tier 2: Age 50 with 10 years of service.
Benefit: Determined as for Normal Retirement; Benefit for members hired after January 1, 2011 is reduced 6.00% for each year that Early Retirement precedes Normal Retirement.
Vesting (Termination):
Tier 1: Less than 8 years: Refund of accumulated contributions without interest.
8 or more: Refund of Contributions or accrued benefit payable at retirement age.
Tier 2: Less than 10 years: Refund of accumulated contributions without interest.
10 or more: Refund of Contributions or accrued benefit payable at retirement age.
Disability:
Eligibility: Total and permanent as determined by the Board of Trustees.
Benefit: Benefit accrued to date of disability. Minimum benefit for Service Incurred is 65% of AFC. For Non-Service Incurred benefit is 50% of Salary.
Pre-Retirement Death Benefits:
Service Incurred: 100% of Salary.
Non-Vested: Refund of Required Contribution Account.
Cost-of-Living Adjustments:
Tier 1: Retirees - 3.00% per year upon attaining age 55. For retirements prior to age 55, 1/12 of 3.00% per month benefit commences prior to reaching age 55. Disabled Retirees - annual increase of 3.00% of the original benefit amount upon attaining age 60. For disablements prior to age 60, 3.00% of original benefit per year benefit commenced prior to age 60.

Tier 2: An annual increase equal to the lesser of 3.00% per year or 1/2 the annual unadjusted percentage increase in the consumer price index-u for the 12 months ending with the September preceding each November 1 of the original pension after attaining age 60.

Contributions
Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability over a period ending in 2041.

Investments

Investment Policy:
The following was the Board's adopted asset allocation policy as of May 31, 2016:

Asset Class	Target Allocation
US Treasuries	2.86%
US Agencies	18.84%
Taxable IL Municipal Bonds	4.92%
US Corporate Bonds	18.17%
US High Yield Bonds	1.74%
US Large Cap	37.23%
US Mid Cap	3.19%
US Small Cap	1.43%
International Stocks	7.06%
Emerging Markets Stocks	1.55%
Real Estate	1.49%
Global Infrastructure	1.52%
Total	100.00%

Concentrations:
The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:
For the year ended May 31, 2016, the annual money-weighted rate of return on Pension Plan investments, net of pension plan investment expense, was -0.05 percent.
The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NET PENSION LIABILITY OF THE SPONSOR

The components of the net pension liability of the sponsor on May 31, 2016 were as follows:

Total Pension Liability	$	24,086,510
Plan Fiduciary Net Position	$	(14,084,700)
Sponsor's Net Pension Liability	$	10,001,810
Plan Fiduciary Net Position as a percentage of Total Pension Liability		58.48%

Actuarial Assumptions:
The total pension liability was determined by an actuarial valuation as of June 1, 2016 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	5.00%
Investment Rate of Return	7.00%

Mortality Rate: RP-2000 Combined Healthy Mortality with a blue collar adjustment, projected to the valuation date with Scale BB.
Disabled Mortality Rate: RP-2000 Disabled Retiree Mortality, projected to the valuation date with Scale BB.
Based on studies of public safety pension plans, we believe this assumption sufficiently accommodates expected future mortality improvements.

The demographic assumptions used in the June 1, 2016 valuation were based on the results of an actuarial experience study performed by the State of Illinois Department of Insurance in 2012.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.
These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.
Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of May 31, 2016 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
US Treasuries	1.80%
US Agencies	2.00%
Taxable IL Municipal Bonds	2.00%
US Corporate Bonds	2.50%
US High Yield Bonds	3.50%
US Large Cap	5.00%
US Mid Cap	5.30%
US Small Cap	5.00%
International Stocks	5.30%
Emerging Markets Stocks	6.20%
Real Estate	4.30%
Global Infrastructure	4.80%

Discount Rate:
The Discount Rate used to measure the Total Pension Liability was 7.00 percent.
The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.
For purpose of this valuation, the expected rate of return on pension plan investments is 7.00 percent; the municipal bond rate is 3.26 percent (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Federal Reserve); and the resulting single discount rate is 7.00 percent.

	1% Decrease 6.00%	Current Discount Rate 7.00%	1% Increase 8.00%
Sponsor's Net Pension Liability	$ 14,013,986	$ 10,001,810	$ 6,758,467

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	05/31/2016	05/31/2015 [1]
Total Pension Liability		
Service Cost	593,355	513,686
Interest	1,575,395	1,280,827
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	(562,619)	(112,998)
Changes of Assumptions	889,503	2,538,709
Benefit Payments, Including Refunds of Employee Contributions	(642,831)	(568,087)
Net Change in Total Pension Liability	1,852,803	3,652,137
Total Pension Liability - Beginning	22,233,707	18,581,570
Total Pension Liability - Ending (a)	$ 24,086,510	$ 22,233,707
Plan Fiduciary Net Position		
Contributions - Employer	747,000	830,000
Contributions - Employee	242,060	232,046
Net Investment Income	(7,923)	773,810
Benefit Payments, Including Refunds of Employee Contributions	(642,831)	(568,087)
Administrative Expense	(7,925)	(11,292)
Net Change in Plan Fiduciary Net Position	330,381	1,256,477
Plan Fiduciary Net Position - Beginning	13,754,319	12,497,842
Plan Fiduciary Net Position - Ending (b)	$ 14,084,700	$ 13,754,319
Net Pension Liability - Ending (a) - (b)	$ 10,001,810	$ 8,479,388
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	58.48%	61.86%
Covered Employee Payroll	$ 2,545,665	$ 2,353,959
Net Pension Liability as a Percentage of covered Employee Payroll	392.90%	360.22%

Notes to Schedule:

[1] The 2015 results were provided by the prior actuary, Timothy W. Sharpe, Actuary, Geneva (IL).

Changes of assumptions:

For the 2016 Fiscal year, amounts reported as changes of assumptions were resulted from updating the mortality assumptions to include a projection to the valuation date using Scale BB.

SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	05/31/2016	05/31/2015 [1]
Tax Levy Requirement Contribution	596,578	579,311
Contributions in Relation to the Tax Levy Requirement Contribution	747,000	830,000
Contribution Deficiency (Excess)	$ (150,422)	$ (250,689)
Covered Employee Payroll	$ 2,545,665	$ 2,353,959
Contributions as a Percentage of Covered Employee Payroll	29.34%	35.26%

[1] The 2015 results were provided by the prior actuary, Timothy W. Sharpe, Actuary, Geneva (IL).

Notes to Schedule

Valuation Date: 06/01/2014

Tax Levy Requirement Contribution is calculated as of June 1, two years prior year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding Method:	Entry Age Normal Cost Method.
Amortization Method:	Level percentage of pay, closed.
Remaining Amortization Period:	27 years (as of valuation 05/01/2014).
Actuarial Asset Method:	5-year Average Market Value (PA 096-1495).
Investment Return:	7.50% net of investment expenses.
Salary Scale:	5.50%.
Mortality:	RP 2000 Mortality Table (BCA, +1M, -4F, 2x>105), adjusted for future mortality improvement using 1-year setback after 15 years.
Withdrawal:	Based on studies of the Fund and the Department of Insurance, Sample Rates below.
Disability:	Based on studies of the Fund and the Department of Insurance, Sample Rates below.
Retirement:	Uniform distribution from ages 50-62 (100% by age 62).
Marital Status:	80% Married, Female spouses 3 years younger.

Sample Annual Rates per 100 Participants:

Age	Mortality	Withdrawal	Disability	Retirement
20	0.04	6.00	0.07	
25	0.04	6.00	0.08	
30	0.08	5.10	0.10	
35	0.12	4.10	0.14	
40	0.14	2.85	0.20	
45	0.19	1.74	0.31	
50	0.27		0.52	20.00
55	0.50		0.99	41.67
60	0.94		1.74	83.33
62	1.23			100.00

SCHEDULE OF INVESTMENT RETURNS

Last Fiscal 10 Years

	05/31/2016	05/31/2015
Annual Money-Weighted Rate of Return Net of Investment Expense	-0.05%	6.10%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended May 31, 2016)

General Information about the Pension Plan

Plan Administration

The Plan is administered by a Board of Trustees comprised of:
a.) Two members appointed by the Village,
b.) Two active Members of the Police Department elected by the Membership, and
c.) One retired Member of the Police Department elected by the Membership.

Plan Membership as of June 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12
Inactive Plan Members Entitled to but Not Yet Receiving Benefits	3
Active Plan Members	29
	44

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

<u>Normal Retirement:</u>

Age: Tier 1: Age 50 and 20 years of service.
Tier 2: Age 55 with 10 years of service.

Benefit: 2.50% of Average Final Compensation times Credited Service.

<u>Early Retirement:</u>

Age: Tier 1: Age 60 and 8 years of service.
Tier 2: Age 50 with 10 years of service.

Benefit: Determined as for Normal Retirement; Benefit for members hired after January 1, 2011 is reduced 6.00% for each year that Early Retirement precedes Normal Retirement.

<u>Vesting (Termination):</u>

Tier 1: Less than 8 years: Refund of accumulated contributions without interest.
8 or more: Refund of Contributions or accrued benefit payable at retirement age.
Tier 2: Less than 10 years: Refund of accumulated contributions without interest.
10 or more: Refund of Contributions or accrued benefit payable at retirement age.

<u>Disability:</u>

Eligibility: Total and permanent as determined by the Board of Trustees.

Benefit: Benefit accrued to date of disability. Minimum benefit for Service Incurred is 65% of AFC. For Non-Service Incurred benefit is 50% of Salary.

<u>Pre-Retirement Death Benefits:</u>

Service Incurred: 100% of Salary.

Non-Vested: Refund of Required Contribution Account.

<u>Cost-of-Living Adjustments:</u>

Tier 1: Retirees - 3.00% per year upon attaining age 55. For retirements prior to age 55, 1/12 of 3.00% per month benefit commences prior to reaching age 55. Disabled Retirees - annual increase of 3.00% of the original benefit amount upon attaining age 60. For disablements prior to age 60, 3.00% of original benefit per year benefit commenced prior to age 60.

Tier 2: An annual increase equal to the lesser of 3.00% per year or 1/2 the annual unadjusted percentage increase in the consumer price index-u for the 12 months ending with the September preceding each November 1 of the original pension after attaining age 60.

Contributions
Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability over a period ending in 2041.

Net Pension Liability

The measurement date is May 31, 2016.
The measurement period for the pension expense was June 1, 2015 to May 31, 2016.
The reporting period is June 1, 2015 through May 31, 2016.

The Sponsor's net pension liability was measured as of May 31, 2016.
The total pension liability used to calculate the net pension liability was determined as of that date.

Actuarial Assumptions:
The total pension liability was determined by an actuarial valuation as of June 1, 2016 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	5.00%
Investment Rate of Return	7.00%

Mortality Rate: RP-2000 Combined Healthy Mortality with a blue collar adjustment, projected to the valuation date with Scale BB.
Disabled Mortality Rate: RP-2000 Disabled Retiree Mortality, projected to the valuation date with Scale BB.
Based on studies of public safety pension plans, we believe this assumption sufficiently accommodates expected future mortality improvements.

The demographic assumptions used in the June 1, 2016 valuation were based on the results of an actuarial experience study performed by the State of Illinois Department of Insurance in 2012.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.
These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of May 31, 2016 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
US Treasuries	2.86%	1.80%
US Agencies	18.84%	2.00%
Taxable IL Municipal Bonds	4.92%	2.00%
US Corporate Bonds	18.17%	2.50%
US High Yield Bonds	1.74%	3.50%
US Large Cap	37.23%	5.00%
US Mid Cap	3.19%	5.30%
US Small Cap	1.43%	5.00%
International Stocks	7.06%	5.30%
Emerging Markets Stocks	1.55%	6.20%
Real Estate	1.49%	4.30%
Global Infrastructure	1.52%	4.80%
Total	100.00%	

Discount Rate:
The discount rate used to measure the total pension liability was 7.00 percent.
The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.
For purpose of this valuation, the expected rate of return on pension plan investments is 7.00 percent; the municipal bond rate is 3.26 percent (based on the weekly rate closest to but not later than the measurement date of the Bond Buyer 20-Bond Index as published by the Federal Reserve); and the resulting single discount rate is 7.00 percent.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances at May 31, 2015	$ 22,233,707	$ 13,754,319	$ 8,479,388
Changes for a Year:			
Service Cost	593,355	-	593,355
Interest	1,575,395	-	1,575,395
Differences Between Expected and Actual Experience	(562,619)	-	(562,619)
Changes of Assumptions	889,503	-	889,503
Changes of Benefit Terms	-	-	-
Contributions - Employer	-	747,000	(747,000)
Contributions - Employee	-	242,060	(242,060)
Net Investment Income	-	(7,923)	7,923
Benefit Payments, Including Refunds of Employee Contributions	(642,831)	(642,831)	-
Administrative Expense	-	(7,925)	7,925
Net Changes	1,852,803	330,381	1,522,422
Balances at May 31, 2016	$ 24,086,510	$ 14,084,700	$ 10,001,810

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

	1% Decrease 6.00%	Current Discount Rate 7.00%	1% Increase 8.00%
Sponsor's Net Pension Liability	$ 14,013,986	$ 10,001,810	$ 6,758,467

Pension plan fiduciary net position.

Detailed information about the pension plan's fiduciary net position is available in a separately issued Plan financial report.

PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

For the year ended May 31, 2016, the Sponsor will recognize a Pension Expense of $1,197,345.
On May 31, 2016, the Sponsor reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	-	492,291
Changes of Assumptions	778,316	-
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	786,052	-
Total	$ 1,564,368	$ 492,291

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

Year ended May 31:	
2017	$ 237,373
2018	$ 237,373
2019	$ 237,374
2020	$ 237,374
2021	$ 40,861
Thereafter	$ 81,722

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SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	05/31/2016
Total Pension Liability	
Service Cost	593,355
Interest	1,575,395
Changes of Benefit Terms	-
Differences Between Expected and Actual Experience	(562,619)
Changes of Assumptions	889,503
Benefit Payments, Including Refunds of Employee Contributions	(642,831)
Net Change in Total Pension Liability	1,852,803
Total Pension Liability - Beginning [1]	22,233,707
Total Pension Liability - Ending (a)	$ 24,086,510
Plan Fiduciary Net Position	
Contributions - Employer	747,000
Contributions - Employee	242,060
Net Investment Income	(7,923)
Benefit Payments, Including Refunds of Employee Contributions	(642,831)
Administrative Expense	(7,925)
Net Change in Plan Fiduciary Net Position	330,381
Plan Fiduciary Net Position - Beginning	13,754,319
Plan Fiduciary Net Position - Ending (b)	$ 14,084,700
Net Pension Liability - Ending (a) - (b)	$ 10,001,810
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	58.48%
Covered Employee Payroll	$ 2,545,665
Net Pension Liability as a Percentage of covered Employee Payroll	392.90%

Notes to Schedule:

[1] The 2015 results were provided by the prior actuary, Timothy W. Sharpe, Actuary, Geneva (IL).

Changes of assumptions:

For the 2016 Fiscal year, amounts reported as changes of assumptions were resulted from updating the mortality assumptions to include a projection to the valuation date using Scale BB.

SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	05/31/2016
Tax Levy Requirement Contribution	596,578
Contributions in Relation to the Tax Levy Requirement Contribution	747,000
Contribution Deficiency (Excess)	$ (150,422)
Covered Employee Payroll	$ 2,545,665
Contributions as a Percentage of Covered Employee Payroll	29.34%

Notes to Schedule

Valuation Date: 06/01/2014

Tax Levy Requirement Contribution is calculated as of June 1, two years prior year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding Method:	Entry Age Normal Cost Method.
Amortization Method:	Level percentage of pay, closed.
Remaining Amortization Period:	27 years (as of valuation 05/01/2014).
Actuarial Asset Method:	5-year Average Market Value (PA 096-1495).
Investment Return:	7.50% net of investment expenses.
Salary Scale:	5.50%.
Mortality:	RP 2000 Mortality Table (BCA, +1M, -4F, 2x>105), adjusted for future mortality improvement using 1-year setback after 15 years.
Withdrawal:	Based on studies of the Fund and the Department of Insurance, Sample Rates below.
Disability:	Based on studies of the Fund and the Department of Insurance, Sample Rates below.
Retirement:	Uniform distribution from ages 50-62 (100% by age 62).
Marital Status:	80% Married, Female spouses 3 years younger.

Sample Annual Rates per 100 Participants:

Age	Mortality	Withdrawal	Disability	Retirement
20	0.04	6	0.07	
25	0.04	6	0.08	
30	0.08	5.1	0.1	
35	0.12	4.1	0.14	
40	0.14	2.85	0.2	
45	0.19	1.74	0.31	
50	0.27		0.52	20.00
55	0.5		0.99	41.67
60	0.94		1.74	83.33
62	1.23			100.00

COMPONENTS OF PENSION EXPENSE
FISCAL YEAR ENDING MAY 31, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning Balance	$ 8,479,388	$ -	$ -	$ -
Total Pension Liability Factors:				
Service Cost	593,355	-	-	593,355
Interest	1,575,395	-	-	1,575,395
Changes in Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience With Regard to Economic or Demographic Assumptions	(562,619)	562,619	-	-
Current Year Amortization		(70,328)	-	(70,328)
Changes in Assumptions About Future Economic or Demographic Factors or Other Inputs	889,503	-	889,503	
Current Year Amortization	-	-	(111,187)	111,187
Benefit Payments	(642,831)		-	(642,831)
Net Change	1,852,803	492,291	778,316	1,566,778
Plan Fiduciary Net Position:				
Contributions - Employer	747,000	-	-	-
Contributions - Employee	242,060	-	-	(242,060)
Net Investment Income	974,643	-	-	(974,643)
Difference Between Projected and Actual Earnings on Pension Plan Investments	(982,566)	-	982,566	-
Current Year Amortization	-	-	(196,514)	196,514
Benefit Payments	(642,831)	-	-	642,831
Administrative Expenses	(7,925)	-	-	7,925
Net Change	330,381	-	786,052	(369,433)
Ending Balance	$10,001,810	$ 492,291	$1,564,368	$1,197,345