

City of York Officers and Employees
Retirement Fund
Actuarial Valuation
as of January 1, 2017

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
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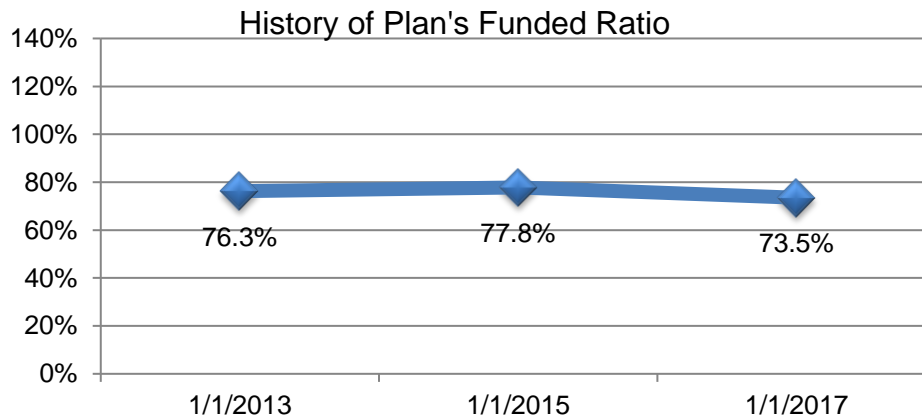
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City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Executive Summary

The purpose of the valuation report is to determine the actuarial status of the Plan and to serve as the basis for satisfying the reporting requirements under Act 205. The actuarial calculations contained in this report will be used to determine future minimum municipal obligations.

The Summary of Principal Plan Benefit Provisions (SPPB) may be found following the Actuarial Certification. This summary represents our understanding of the current plan provisions in effect at January 1, 2017. Following the SPPB is a summary of the Actuarial Assumptions and Methods used in this valuation report. Changes to any assumptions from the prior valuation are indicated on the second page which include a change to the mortality assumption.



	<u>1/1/2013</u>	<u>1/1/2015</u>	<u>1/1/2017</u>
Market Value of Assets (MVA)	\$ 21,132,484	\$ 23,605,042	\$23,601,811
Actuarial Value of Assets (AVA)	\$ 20,996,579	\$ 24,015,037	\$25,633,700
Actuarial Accrued Liability (AAL)	\$ 27,527,632	\$ 30,853,331	\$34,869,508
Unfunded Actuarial Accrued Liability (UAAL)	\$ 6,531,053	\$ 6,838,294	\$ 9,235,808
Normal Cost	\$ 587,182	\$ 598,372	\$ 644,047
W-2 Payroll	\$ 7,459,574	\$ 7,283,412	\$ 7,513,114
Percentage of W-2 Payroll	7.9%	8.2%	8.6%
Average Age	47.2	46.9	47.7
<i>Interest</i>	8.00%	8.00%	8.00%
<i>Salary Scale</i>	5.00%	5.00%	5.00%
<i>Average Life Expectancy*</i>	18.38	21.24	23.33
<i>Mortality Basis</i>	UP1984	RP2000	IRS 2017 Small Plan Combined Static
Participant Counts:			
Active	179	168	165
Vested Former	28	31	30
Receiving Benefits	104	120	129
Total	<u>311</u>	<u>319</u>	<u>324</u>

*Based on a male currently aged 60.

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Executive Summary

Section 1

At the beginning of Section 1, there is a summary of the receipts and disbursements for 2015 and 2016. The Plan received contributions of \$1,589,868 during 2015, and \$1,277,873 during 2016. There were benefit payments to former participants totaling \$1,677,033 during 2015, and \$1,781,508 during 2016. The investment return earned by the plan assets was approximately (3.5%) for 2015, and approximately 7.2% for 2016.

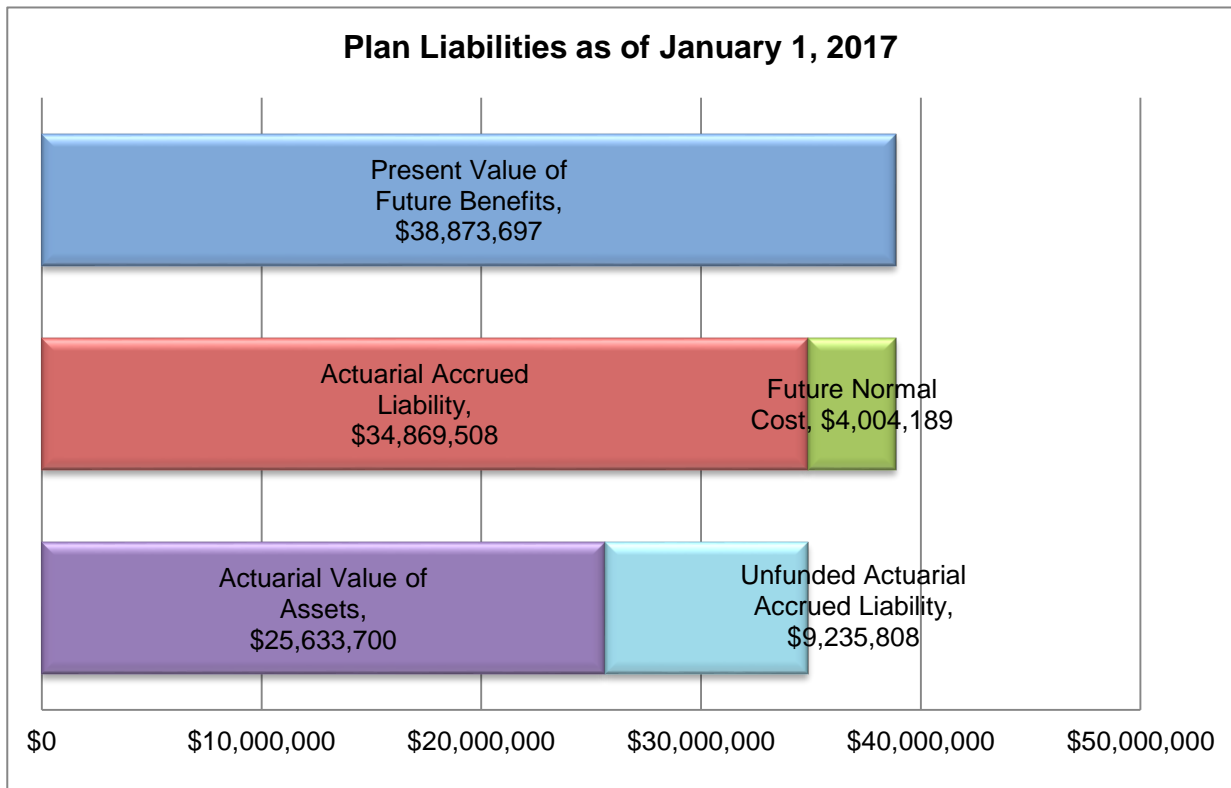
The following is a summary of the net dollar-weighted rates of investment return for the past six calendar years on both a market value and actuarial value basis:

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Market Value of Assets	(2.3%)	12.2%	14.6%	2.3%	(3.5%)	7.2%
Actuarial Value of Assets	0.2%	0.2%	11.0%	7.9%	4.5%	5.5%

Section 2

The Act 205 funding calculations are included in Section 2. The first page shows the development of the actuarial value of assets. As of December 31, 2016, the actuarial value of assets is \$25,633,700.

The actuarial present value of future benefits is \$38,873,697. Since the present value of future normal costs is \$4,004,189, the actuarial accrued liability at January 1, 2017, is \$34,869,508. Subtracting the actuarial value of assets of \$25,633,700 results in an unfunded actuarial accrued liability of \$9,235,808.



City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Executive Summary

Components of Financial Requirements

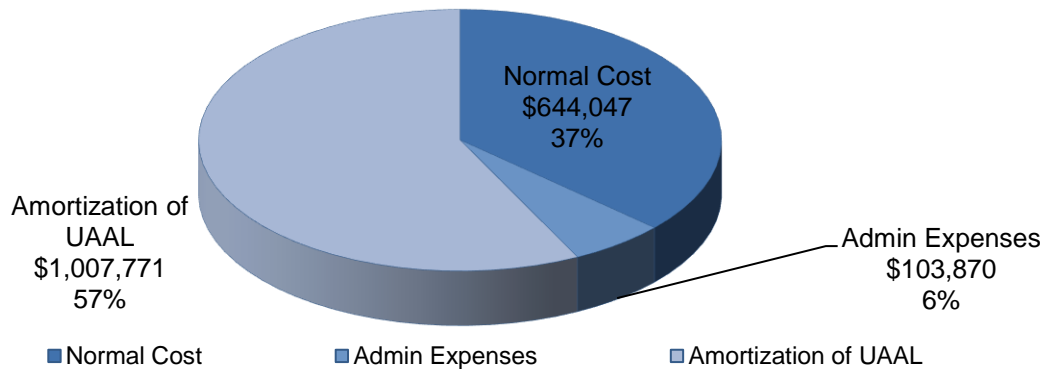
There are three cost components that make up the financial requirement of a Plan's minimum municipal obligation.

1. Normal Cost – This is the cost of pension and other benefits earned during the current year. The normal cost of the Plan is \$644,047. The normal cost represents approximately 8.6% of annual payroll.

2. Administrative Expenses – Examples of administrative expenses paid from the plan assets are expenses for: investment advisory services, actuarial services and trustee services. The Plan's estimated annual administrative expenses are \$103,870.

3. Amortization of the Unfunded Actuarial Accrued Liability – The amount of this cost is comprised of the amortization of the various gains and losses, plan amendments, and changes in actuarial assumptions that have occurred in the Plan over time. The Plan had a loss as of January 1, 2017, of \$1,128,959 due to the change in actuarial assumptions. In addition, the Plan had an actuarial loss of \$1,749,532 for the previous two-year period. The amortization of the Unfunded Actuarial Accrued Liability is \$1,007,771.

Estimated Financial Requirements



Please note that the figures shown below are for illustrative purposes only. The actual minimum municipal obligation is determined through the annual budgeting process.

Illustration of Minimum Municipal Obligation

Financial Requirements	
Normal Cost	\$644,047
Administrative Expenses	\$103,870
Amortization of Unfunded Actuarial Accrued Liability (UAAL)	\$1,007,771
Total	\$1,755,688
Expected Member Contributions	(\$150,262)
Minimum Municipal Obligation (not less than \$0)	\$1,605,426

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Actuarial Certification

In preparing this report, we have relied upon the data furnished to us. The data with respect to receipts and disbursements and assets of the Plan as well as the data with respect to participants and beneficiaries were furnished by the City of York. The data has been reviewed and has been determined to be reasonable and consistent.

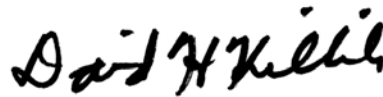
The information as contained in this report is a projection of liabilities based upon stated assumptions and is not an exact statement of the Plan's ultimate benefits and liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as at the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the assignment, an analysis of the potential range of such future measurements was not performed.

I certify that all costs, liabilities, rates of interest, and other factors under the Plan in Section 2 of the report have been determined on the basis of actuarial assumptions and methods, each of which is reasonable (taking into account the experience of the Plan and reasonable expectations) or which, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption and method were reasonable, and which, in combination, offer my best estimate of anticipated experience under the Plan.

I am a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and an Enrolled Actuary under ERISA, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

2/14/2018

Date



David H. Killick, F.S.A.
Consulting Actuary
Enrolled Actuary No. 17-03880

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Summary of Principal Plan Benefit Provisions
Members Hired Before January 1, 1978

Eligibility

All officers and full-time employees, other than firemen and policemen, hired before January 1, 1978, are eligible for the following benefits. Persons paid a per diem wage are not compelled to join.

Normal Retirement

The normal retirement requirement is attainment of age 60 and completion of 20 years of service, or completion of 40 years of service, regardless of age.

The normal retirement pension is payable semi-monthly for life with payments ceasing upon death.

The amount of annual pension is equal to 50% of the higher of the final rate of compensation or compensation averaged over the highest consecutive five years of employment. Service increments of 1/40th of the annual pension per year of service in excess of 20, but not beyond age 65, are provided if the member makes extra contributions. The calculation of compensation includes base salary only.

Disability Retirement

A disability benefit is provided upon permanent disability before age 55 after completion of 15 years of service. The disability retirement pension is 50% of compensation at the time of disability.

Such disability pension is reduced by Workers' Compensation benefits received.

Death Benefits

The death benefit for a member who has been married at least one year and is eligible for normal retirement is a survivor pension for his surviving spouse equal to 50% of the pension the member would have been receiving had he retired on the day prior to the date of death and had elected to receive his pension in a joint and 50% survivor benefit option form.

Vesting

A member's benefits vest upon completion of 12 years of service. The vested benefit is a deferred pension beginning at the normal retirement date equal to the benefit accrued to the date of termination.

Accrued Benefit

The benefit accrued at any date prior to normal retirement is equal to the projected normal retirement benefit, multiplied by the ratio, not to exceed one, of the number of years of service completed to date by the member to 20.

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Summary of Principal Plan Benefit Provisions
Members Hired Before January 1, 1978

Employee Contributions

Members contribute 2% of compensation. If service increments are to be provided, an additional 1/2% of compensation is contributed.

Contributions are refunded without interest on termination or death prior to becoming eligible for retirement benefits.

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Summary of Principal Plan Benefit Provisions
Members Hired On or After January 1, 1978

Eligibility

All officers and full-time employees, other than firemen and policemen, hired on or after January 1, 1978, are eligible to join the Plan with the following benefits.

Normal Retirement

The normal retirement requirement is attainment of age 60 and completion of five years of service, or completion of 40 years of service, regardless of age.

The normal retirement pension is payable semi-monthly for life with payments continuing after the member's death to the surviving spouse or, if no surviving spouse, to dependent children under the age of 18 equal to 50% of the pension the member was receiving at the time of death.

The amount of annual pension is equal to 2% of average annual compensation, multiplied by the number of complete years of service at retirement, up to a maximum of 40 years. Average annual compensation is based upon compensation for the highest five consecutive years out of the last ten years of employment. The calculation of compensation includes base salary plus longevity payments.

Early Retirement

Members are eligible for early retirement upon attainment of age 55 and completion of five years of service. The early retirement benefit is the benefit accrued to the date of early retirement, reduced 1/3 of 1% for each month early.

Disability Retirement

Members are eligible for disability retirement after completion of ten or more years of service. The disability retirement benefit is the benefit accrued to the date of disability, but not less than 50% of average monthly compensation. However, the amount of benefit shall not exceed such amount as necessary to make all benefits fully or partially financed by the City equal to 80% of compensation at the time of disability.

Death Benefits

The death benefit for a member who has been married at least one year and is eligible for early retirement is a survivor pension for his surviving spouse or, if no surviving spouse, to dependent children under the age of 18 equal to 50% of the pension the member would have been receiving had he been retired on the day of his death.

Vesting

A member's benefits vest upon completion of five years of service. The vested benefit is a deferred pension beginning at the normal retirement date equal to the benefit accrued to the date of termination.

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Summary of Principal Plan Benefit Provisions
Members Hired On or After January 1, 1978

Accrued Benefit

The benefit accrued at any date prior to normal retirement is equal to the normal retirement benefit formula, but based upon compensation and service to date.

Employee Contributions

Members contribute 2% of compensation. If a member terminates employment before completion of five years of service, member contributions are refunded with 5% compound interest.

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Actuarial Assumptions and Methods

Interest

8.00%

Salary

5.00% Annual Increase

Withdrawal

Table C-3: Rates of withdrawal at selected ages:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	15.0000%	35	10.0000%	50	2.5000%
25	15.0000%	40	7.5000%	55	1.0000%
30	12.5000%	45	5.0000%	60	0.0000%

Mortality

IRS 2017 Static Combined Table for Small Plans

Incorporated into the table are rates for annuitants projected 7 years and rates for non-annuitants projected 15 years using Scale AA to reflect mortality improvement.

Disability

SOA 1987 Group LTD Table - Males, 3-month elimination. Sample rates are shown below.

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	0.1444%	35	0.2123%	50	0.7536%
25	0.1534%	40	0.2931%	55	1.2612%
30	0.1708%	45	0.4561%	60	1.8818%

Retirement

Normal Retirement Age, or age on valuation date, if greater.

Preretirement Death Benefit

Liabilities computed on the assumption that all participants will have spouses of the same age at the date of eligibility for the benefit.

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Actuarial Assumptions and Methods

Expenses

Provision for administrative expenses added to annual contribution requirement, per Act 205 of 1984.

Inflation

Moderate inflation based on long term historical average rates is a component of the actuarial assumptions used herein. Provision is not made for advance funding of sharply higher rates of inflation experienced in some years. The effects of such higher rates are reflected in the funding after their occurrence.

Actuarial Value of Assets

Each year the investment gain (excess of actual investment income including realized and unrealized appreciation over expected investment income) or loss is recognized over a five-year period. In no event is the actuarial value of assets allowed to be greater than 120% or less than 80% of market value.

Actuarial Cost Method

Entry Age Normal (required by Act 205 of 1984) using level percentage of future payroll amortization of the initial unfunded actuarial accrued liability based upon a 4.0% annual increase in covered payroll assumption.

Changes in Actuarial Assumptions and Methods

	<u>Prior</u>	<u>Current</u>
Mortality	RP2000 Table	See Above

City of York Officers and Employees Retirement
Fund
Actuarial Valuation
as of January 1, 2017

Section 1

Summary of Plan Assets and Summary of Plan Membership

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Receipts and Disbursements - January 1, 2015 to December 31, 2015

Market Value at 1/1/2015		\$ 23,605,042.00
Receipts		
Employer Contributions Received	\$ 1,448,271.00	
Employee Contributions Received	141,597.00	
Investment Income		
Income Received	\$ 328,972.00	
Accrued Income at 1/1/2015	0.00	
Accrued Income at 12/31/2015	0.00	
Total Investment Income	328,972.00	
Change in Market Value	(1,139,927.00)	
Total Receipts		778,913.00
Disbursements		
Monthly Benefit Payments	\$ (1,626,150.00)	
Refund of Employee Contributions	(50,883.00)	
Administrative Expenses	(104,575.00)	
Total Disbursements		(1,781,608.00)
Market Value at 12/31/2015		\$ 22,602,347.00
Approximate Net Dollar-Weighted Rate of Investment Return		(3.46%)

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Receipts and Disbursements - January 1, 2016 to December 31, 2016

Market Value at 1/1/2016		\$ 22,602,347.00
Receipts		
Employer Contributions Received	\$ 1,129,001.00	
Employee Contributions Received	148,872.00	
Investment Income		
Income Received	\$ 340,101.00	
Accrued Income at 1/1/2016	0.00	
Accrued Income at 12/31/2016	0.00	
Total Investment Income	340,101.00	
Change in Market Value	1,266,163.00	
Total Receipts		2,884,137.00
Disbursements		
Monthly Benefit Payments	\$ (1,764,617.00)	
Refund of Employee Contributions	(16,891.00)	
Administrative Expenses	(103,165.00)	
Total Disbursements		(1,884,673.00)
Market Value at 12/31/2016		\$ 23,601,811.00
Approximate Net Dollar-Weighted Rate of Investment Return		7.17%

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017

Assets and Liabilities

Assets

Cash	\$	0.00
Mutual Funds		<u>23,601,811.00</u>
Total Assets in Fund		\$ 23,601,811.00
Accrued Income		<u>0.00</u>
Total Assets		\$ 23,601,811.00

Liabilities

Total Liabilities		<u>0.00</u>
Net Assets		<u><u>\$ 23,601,811.00</u></u>

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Summary of Plan Membership

Active Members	Number of Members	Annual Payroll
Active Members as of 1/1/2015	168	
New Members During the Period	35	
Returned to Active	2	
Members No Longer Active:		
Retired with Disability Benefit	0	
Retired with Service Retirement Benefit	(9)	
Separated with Deferred Benefit	(14)	
Separated with Refund of Contributions	(17)	
Separated with Neither Deferred Benefit nor Refund of Contributions	0	
Deceased	0	
Total	(40)	
Active Members as of 1/1/2017	165	\$ 7,513,114
Vested Former Members	Number of Members	Annual Benefit
Vested Former Members as of 1/1/2015	31	
Separated with Deferred Benefit	14	
Beneficiary of Deceased Participant	0	
Returned to Active	0	
Retired with Service Retirement Benefit	(5)	
Deceased or Paid in Full	(10)	
Vested Former Members as of 1/1/2017	30	\$ 334,308
Retired Members		
Retired Members as of 1/1/2015	95	
Retired with Service Retirement Benefit	14	
Deceased or Paid in Full	(3)	
Returned to Active	(2)	
Retired Members as of 1/1/2017	104	\$ 1,554,797
Disabled Members		
Disabled Members as of 1/1/2015	8	
Retired with Disability Benefit	0	
Deceased	0	
Disabled Members as of 1/1/2017	8	\$ 103,445
Spouse Beneficiaries of Deceased Members		
Spouse Beneficiaries of Deceased Members as of 1/1/2015	17	
Additional Spouse Beneficiaries of Deceased Members	0	
Deceased	0	
Spouse Beneficiaries of Deceased Members as of 1/1/2017	17	\$ 99,752

City of York Officers and Employees Retirement
Fund
Actuarial Valuation
as of January 1, 2017

Section 2

Act 205 Funding Calculations

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Actuarial Value of Assets

	2013	2014	2015	2016
Market Value at 1/1	\$21,132,484.00	\$23,662,202.00	\$23,605,042.00	\$22,602,347.00
Contributions	973,812.00	953,519.00	1,589,868.00	1,277,873.00
Benefit Payments and Expenses	(1,443,470.00)	(1,529,931.00)	(1,781,608.00)	(1,884,673.00)
Expected Investment Income ¹	1,671,812.00	1,869,920.00	1,880,734.00	1,783,916.00
Expected Value at 12/31	\$ 22,334,638.00	\$ 24,955,710.00	\$ 25,294,036.00	\$ 23,779,463.00
Market Value at 12/31	23,662,202.00	23,605,042.00	22,602,347.00	23,601,811.00
Gain/(Loss): (Market Value less Expected Value)	\$ 1,327,564.00	\$ (1,350,668.00)	\$ (2,691,689.00)	\$ (177,652.00)
Percentage of Gain/(Loss) to be recognized in the future	20%	40%	60%	80%
Gain/(Loss) to be recognized in the future	\$ 265,513.00	\$ (540,267.00)	\$ (1,615,013.00)	\$ (142,122.00)
Market Value at 12/31/2016				\$ 23,601,811.00
Total (Gain)/Loss for 2013-2016 to be recognized in the future				<u>2,031,889.00</u>
Actuarial Value of Assets at 12/31/2016				<u><u>\$ 25,633,700.00</u></u> ²
2015 Approximate Net Dollar-Weighted Rate of Investment Return				4.49%
2016 Approximate Net Dollar-Weighted Rate of Investment Return				5.46%

¹ 8.00% annual interest rate

² Actuarial Value of Assets cannot be greater than 120% nor be less than 80% of the Market Value.

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Unfunded Actuarial Accrued Liability and Normal Cost

Unfunded Actuarial Accrued Liability

Actuarial Present Value of Future Benefits

Active Members Retirement Pension Benefits	\$ 17,566,412	
Active Members Vested Withdrawal Benefits	877,297	
Active Members Disability Benefits	1,491,914	
Active Members Preretirement Death Benefits	75,370	
Active Members Refund of Member Contributions	62,010 ¹	
Refund of Employee Contributions to Terminated Members	70,729	
Vested Former Members Benefits	2,362,150	
Retired Members Benefits	14,593,740	
Disabled Members Benefits	1,031,653	
Surviving Spouses Benefits	<u>742,422</u>	
Total	\$ 38,873,697	
Actuarial Present Value of Future Normal Costs		<u>(4,004,189)</u>
Actuarial Accrued Liability	\$ 34,869,508	
Actuarial Value of Assets		<u>(25,633,700)</u>
Unfunded Actuarial Accrued Liability		<u><u>\$ 9,235,808</u></u>
 Normal Cost		
Normal Cost		<u><u>\$ 644,047</u></u>
Normal Cost as a Percentage of Annual Payroll		<u><u>8.6%</u></u>

¹ Accumulated Member Contributions Without Interest as of 1/1/2017 = \$1,633,854

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Analysis of the Change in the Unfunded Actuarial Accrued Liability

Unfunded Actuarial Accrued Liability at 1/1/2015	\$	6,838,294
Additions		
Normal Costs	\$ 1,226,663	
Administrative Expenses	207,740	
Interest on Unfunded Actuarial Accrued Liability, Normal Costs, and Administrative Expenses	<u>1,304,735</u>	
Total		2,739,138
Contributions		
Employer Contributions	\$ (2,577,272)	
Employee Contributions	(290,469)	
Interest on Contributions	<u>(261,224)</u>	
Total		(3,128,965)
Adjustment for Funding Deviation		(91,150)
Modification in the Benefit Plan		0
Change in Actuarial Assumptions		1,128,959
Actuarial Loss		
Investment Loss	\$ 1,545,242	
Experience Loss	113,140	
Funding Deviation	<u>91,150</u>	
Total		<u>1,749,532</u>
Unfunded Actuarial Accrued Liability at 1/1/2017	\$	<u><u>9,235,808</u></u>

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Amortization of Unfunded Actuarial Accrued Liability

Initial Date	Initial Amount	Outstanding Balance	Amortization Amount	Remaining Amortization	Nature
January 1, 2009	\$ (4,559,279)	\$ (3,499,546)	\$ (429,975)	12 Years	Assumption Chg.
January 1, 2009	7,103,800	5,452,642	669,942	12 Years	Actuarial Loss
January 1, 2011	772,250	648,454	72,829	14 Years	Actuarial Loss
January 1, 2013	3,499,935	3,155,304	330,070	16 Years	Actuarial Loss
January 1, 2015	1,089,428	1,005,973	117,849	13 Years	Assumption Chg.
January 1, 2015	(424,820)	(405,510)	(40,064)	18 Years	Actuarial Gain
January 1, 2017	1,128,959	1,128,959	122,126	15 Years	Assumption Chg.
January 1, 2017	1,749,532	1,749,532	164,994	20 Years	Actuarial Loss
Total	\$ 10,359,805	\$ 9,235,808	\$ 1,007,771		

Projected plan year in which the unfunded accrued liability is fully amortized is 2031.

Aggregation of Changes in Unfunded Actuarial Accrued Liability

Date of Aggregation	Aggregated Target Date	Outstanding Balance	Amortization Amount	Remaining Amortization
January 1, 2017	2031	<u>\$ 9,235,808</u>	<u>\$ 1,007,771</u>	15 Years

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Illustration of Minimum Municipal Obligation

Financial Requirements

Normal Cost	\$	644,047
Administrative Expenses		103,870 ¹
Amortization of Unfunded Actuarial Accrued Liability		<u>1,007,771</u>
Total	\$	1,755,688
Expected Member Contributions		<u>(150,262)</u>
Minimum Municipal Obligation	\$	1,605,426 ²
Estimated Allocation of General Municipal Pension System State Aid		<u>0</u>
Net Minimum Municipal Obligation	\$	<u><u>1,605,426</u></u> ²

¹ Total Administrative Expenses for Plan Year 1/1/2015 to 12/31/2015 - \$ 104,575

Total Administrative Expenses for Plan Year 1/1/2016 to 12/31/2016 - \$ 103,165

² This is not an actual MMO. Figures from this report will be used to prepare actual MMOs in future years.

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Receipts and Disbursements Excluding Bond Issue Assets
January 1, 2015 to December 31, 2015

Market Value at 1/1/2015		\$ 19,596,691.67
Receipts		
Employer Contributions Received	\$ 1,922,069.00	
Employee Contributions Received	141,597.00	
Investment Income	273,109.57	
Change in Market Value	<u>(946,357.05)</u>	
Total Receipts		1,390,418.52
Disbursements		
Monthly Benefit Payments	\$ (1,626,150.00)	
Refund of Employee Contributions	(50,883.00)	
Administrative Expenses	<u>(104,575.00)</u>	
Total Disbursements		<u>(1,781,608.00)</u>
Market Value at 12/31/2015		<u><u>\$ 19,205,502.19</u></u>

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Receipts and Disbursements Excluding Bond Issue Assets
January 1, 2016 to December 31, 2016

Market Value at 1/1/2016		\$ 19,205,502.19
Receipts		
Employer Contributions Received	\$ 1,624,954.00	
Employee Contributions Received	148,872.00	
Investment Income	288,988.15	
Change in Market Value	<u>1,075,874.83</u>	
Total Receipts		3,138,688.98
Disbursements		
Monthly Benefit Payments	\$ (1,764,617.00)	
Refund of Employee Contributions	(16,891.00)	
Administrative Expenses	<u>(103,165.00)</u>	
Total Disbursements		<u>(1,884,673.00)</u>
Market Value at 12/31/2016		<u><u>\$ 20,459,518.17</u></u>

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Assets and Liabilities Excluding Bond Issue Assets

Assets

Total Assets \$ 20,459,518.17

Liabilities

Total Liabilities 0.00

Net Assets \$ 20,459,518.17

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Actuarial Value of Assets

	2013	2014	2015	2016
Market Value at 1/1	\$17,236,416.99	\$19,471,801.35	\$19,596,691.67	\$19,205,502.19
Contributions	1,232,455.00	1,227,525.00	2,063,666.00	1,773,826.00
Benefit Payments and Expenses	(1,443,470.00)	(1,529,931.00)	(1,781,608.00)	(1,884,673.00)
Expected Investment Income ¹	1,370,472.76	1,545,647.87	1,579,017.65	1,532,006.30
Expected Value at 12/31	\$18,395,874.75	\$20,715,043.22	\$21,457,767.32	\$20,626,661.49
Market Value at 12/31	19,471,801.35	19,596,691.67	19,205,502.19	20,459,518.17
Gain/(Loss): (Market Value less Expected Value)	\$ 1,075,926.60	\$ (1,118,351.55)	\$ (2,252,265.13)	\$ (167,143.32)
Percentage of Gain/(Loss) to be recognized in the future	20%	40%	60%	80%
Gain/(Loss) to be recognized in the future	\$ 215,185.32	\$ (447,340.62)	\$ (1,351,359.08)	\$ (133,714.66)
Market Value at 12/31/2016				\$20,459,518.17
Total (Gain)/Loss for 2013-2016 to be recognized in the future				<u>1,717,229.04</u>
Actuarial Value of Assets at 12/31/2016				<u><u>\$22,176,747.21</u></u> ²
2015 Approximate Net Dollar-Weighted Rate of Investment Return				4.52%
2016 Approximate Net Dollar-Weighted Rate of Investment Return				5.45%

¹ 8.00% annual interest rate

² Actuarial Value of Assets cannot be greater than 120% nor be less than 80% of the Market Value.

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Unfunded Actuarial Accrued Liability Excluding Bond Issue Assets

Actuarial Present Value of Future Benefits	\$ 38,873,697
Actuarial Present Value of Future Normal Costs	<u>(4,004,189)</u>
Actuarial Accrued Liability	\$ 34,869,508
Actuarial Value of Assets	<u>(22,176,747)</u>
Unfunded Actuarial Accrued Liability	<u><u>\$ 12,692,761</u></u>

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
**Analysis of the Change in the Unfunded Actuarial Accrued Liability
 Excluding Bond Issue Assets**

Unfunded Actuarial Accrued Liability at 1/1/2015		\$ 10,905,100
Additions		
Normal Costs	\$ 1,226,663	
Administrative Expenses	207,740	
Interest on Unfunded Actuarial Accrued Liability, Normal Costs, and Administrative Expenses	<u>1,981,451</u>	
Total		3,415,854
Contributions		
Employer Contributions	\$ (3,547,023)	
Employee Contributions	(290,469)	
Interest on Contributions	<u>(299,128)</u>	
Total		(4,136,620)
Adjustment for Funding Deviation		(592,307)
Modification in the Benefit Plan		0
Change in Actuarial Assumptions		1,128,959
Actuarial Loss		
Investment Loss	\$ 1,266,328	
Experience Loss	113,140	
Funding Deviation	<u>592,307</u>	
Total		<u>1,971,775</u>
Unfunded Actuarial Accrued Liability at 1/1/2017		<u><u>\$ 12,692,761</u></u>

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017

Amortization of Unfunded Actuarial Accrued Liability Excluding Bond Issue Assets

Initial Date	Initial Amount	Outstanding Balance	Amortization Amount	Remaining Amortization	Nature
January 1, 1985	\$ 3,626,630	\$ 4,215,378	\$ 599,089	8 Years ¹	Initial Unfunded
January 1, 2001	3,943	1,326	372	4 Years	Active Amendment
January 1, 2002	160,320	65,196	15,119	5 Years	Active Amendment
January 1, 2003	(1,868,133)	(879,611)	(176,179)	6 Years	Assumption Chg.
January 1, 2003	1,587,452	171,733	171,733	1 Year	Actuarial Loss
January 1, 2005	97,595	29,394	10,557	3 Years	Actuarial Loss
January 1, 2007	(464,858)	(186,760)	(52,209)	4 Years	Assumption Chg.
January 1, 2007	(128,735)	(51,727)	(14,458)	4 Years	Actuarial Gain
January 1, 2009	(3,497,012)	(2,684,185)	(329,795)	12 Years	Assumption Chg.
January 1, 2009	6,138,433	4,711,653	578,901	12 Years	Actuarial Loss
January 1, 2011	347,825	292,064	32,803	14 Years	Actuarial Loss
January 1, 2013	2,929,481	2,641,022	276,272	16 Years	Actuarial Loss
January 1, 2015	1,089,428	1,005,972	117,849	13 Years	Assumption Chg.
January 1, 2015	272,979	260,572	25,744	18 Years	Actuarial Loss
January 1, 2017	1,128,959	1,128,959	122,126	15 Years	Assumption Chg.
January 1, 2017	1,971,775	1,971,775	185,953	20 Years	Actuarial Loss
Total	\$ 13,396,082	\$ 12,692,761	\$ 1,563,877		

Projected plan year in which the unfunded accrued liability is fully amortized is 2029.

Aggregation of Changes in Unfunded Actuarial Accrued Liability

Date of Aggregation	Aggregated Target Date	Outstanding Balance	Amortization Amount	Remaining Amortization
January 1, 2017	2030	<u>\$ 8,477,383</u>	<u>\$ 964,788</u>	14 Years

¹ Level Percentage of Future Payroll Amortization

City of York Officers and Employees Retirement
Fund
Actuarial Valuation
as of January 1, 2017

Section 3

Supplemental Information

City of York Officers and Employees Retirement Fund
Actuarial Valuation as of January 1, 2017
Supplemental Information

Schedule of Funding Progress

Valuation Date	Market Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Net Position as a % of Total Liability (b-a)/b	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1/1/2011	\$ 19,799,155	\$ 24,567,150	\$ 4,767,995	19.4%	80.6%	\$ 7,600,411	62.7%
1/1/2012	19,177,880						
1/1/2013	21,132,484	27,527,632	6,395,148	23.2%	76.8%	7,459,574	85.7%
1/1/2014	23,662,202						
1/1/2015	23,605,042	30,853,331	7,248,289	23.5%	76.5%	7,283,412	99.5%
1/1/2016	22,602,347						
1/1/2017	23,601,811	34,869,508	11,267,697	32.3%	67.7%	7,513,114	150.0%

Schedule of Interest Rate Sensitivity Testing

Interest Rate ¹	Market Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Net Position as a % of Total Liability (b-a)/b	Funded Ratio (a/b)
7.00%	\$ 23,601,811	\$ 38,650,772	\$ 15,048,961	38.9%	61.1%
8.00%	23,601,811	34,869,508	11,267,697	32.3%	67.7%
9.00%	23,601,811	31,672,180	8,070,369	25.5%	74.5%

¹ Valuation interest rate is 8.00%

City of York Officers and Employees Retirement Fund
 Actuarial Valuation as of January 1, 2017
Supplemental Information

Schedule of Contributions from the Employer and Other Contributing Entities

Year	Actuarially ¹ Determined Contribution	Contributions ² From Employer	Contribution Deficiency/ (Surplus)
2007	\$ 331,360	\$ 331,360	\$ 0
2008	335,270	335,270	0
2009	344,088	344,088	0
2010	376,684	376,684	0
2011	759,447	822,481	(63,034)
2012	762,020	873,883	(111,863)
2013	757,667	823,731	(66,064)
2014	724,531	793,801	(69,270)
2015	1,204,572	1,448,271	(243,699)
2016	1,129,001	1,129,001	0

¹ Minimum Municipal Obligation under Act 205 of 1984

² Includes general municipal pension system State aid

Supplemental Information for Assumptions for Act 205 Funding Calculations

In accordance with regulations under Act 205 of 1984, all actuarial assumptions are selected jointly by the actuary and the governing body of the pension Plan.

Interest Rates

The interest rate assumption is the long term expected rate of return on pension plan investments. It is based on the Plan's current asset allocation, expected long term inflation, and historical long term expected real rates of return on the Plan's major asset classes.

Salary

Based on expected long term salary increases for active participants, considering the effects of future inflation.

Withdrawal

Historical rates of withdrawal were considered as well as future expectations of withdrawal for the affected population.

Mortality

Based on the most current IRS mortality table for funding purposes.

Disability

Based on the Society of Actuaries Group LTD Table – Males, 3-month elimination (1987).

Retirement

Due to the plan size and design, use of a single retirement age was assumed. The use of retirement rates is not expected to produce materially different results.

Preretirement Survivor Death Benefit

A conservative assumption was made of percent married compared to current marital statistics for the general population.

Expenses

Expected expenses are determined by averaging the two prior year's expenses.

Inflation

Moderate inflation based on long term historical average rates is a component of the actuarial assumptions used herein.