



March 6, 2018

Mr. John P. Villanueva, C.P.A.
Finance Director
Town of Orange Park
2042 Park Avenue
Orange Park, Florida 32073

**Re: Town of Orange Park General Employees' Defined Benefit Plan and Trust
October 1, 2017 Actuarial Valuation**

Dear John:

As requested, we are pleased to enclose nine (9) copies of the October 1, 2017 Actuarial Valuation Report for the Town of Orange Park General Employees' Defined Benefit Plan and Trust.

We appreciate the opportunity to have performed this important assignment on behalf of the Town and look forward to presenting the highlights of our Report at an upcoming meeting.

The State issued a Memorandum announcing the activation of their new online reporting portal for pension plans. Upon approval of the Actuarial Valuation Report, we will upload the required copy of the Actuarial Valuation Report along with the newly required disclosure information to the State portal.

If you should have any questions concerning the above, please do not hesitate to contact us.

Sincerest regards,

A handwritten signature in black ink that reads "L. F. Wilson". The signature is written in a cursive style with a large, prominent "L" and "W".

Lawrence F. Wilson, A.S.A.
Senior Consultant and Actuary

Enclosures

TOWN OF ORANGE PARK GENERAL EMPLOYEES DEFINED BENEFIT PLAN AND TRUST

Actuarial Valuation as of October 1, 2017

This Valuation Determines the Annual Contribution for the Plan Year October 1, 2017 through September 30, 2018 to be Paid in the Fiscal Year October 1, 2017 to September 30, 2018

March 6, 2018



**Town of Orange Park General Employees
Defined Benefit Plan and Trust**

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March 6, 2018

Town Council
Town of Orange Park General Employees'
Defined Benefit Plan and Trust
c/o Mr. John P. Villanueva, C.P.A.
Finance Director
2042 Park Avenue
Orange Park, Florida 32073

Dear Council Members:

October 1, 2017 Actuarial Valuation

We are pleased to present our October 1, 2017 Actuarial Valuation for the Town of Orange Park General Employees' Defined Benefit Plan and Trust (Plan). The purpose of this report is to indicate appropriate contribution levels, monitor minimum funding requirements, comment on the actuarial stability of the Plan and to satisfy State and accounting requirements. The Town Council has retained Gabriel, Roeder, Smith & Company (GRS) to prepare an annual actuarial valuation of the Plan.

This report consists of this commentary, detailed Tables I through XVI and the State Required Exhibit on Table XVII. The Tables contain basic Plan cost figures plus significant details on the benefits, liabilities and experience of the Plan. We suggest you thoroughly review the report at your convenience and contact us with any questions that may arise.

Retirement Plan Costs

Our Actuarial Valuation develops the required minimum Retirement Plan payment under the Florida Protection of Public Employee Retirement Benefits Act. The minimum payment consists of payment of annual normal costs including expenses and amortization of the components of the unfunded actuarial accrued liability over various periods as prescribed by law. The minimum payment for fiscal year ending September 30, 2018 is **\$243,320 (11.9%)**. The figure in parentheses is the Plan cost expressed as a percentage of covered annual payroll for employees as of October 1, 2017 - \$2,045,341.

This total cost is to be met by member and Town contributions. We anticipate that member contributions will be **\$65,372 (3.2%)** - the resulting minimum required Town contribution is **\$177,407 (8.7%)**. The Town contribution includes an interest adjustment.

Changes in Actuarial Assumptions, Methods and Plan Benefits

The Plan provisions remained unchanged from the October 1, 2016 Actuarial Valuation. Plan benefits are summarized on Table IX.

The mortality assumptions have been updated to use the mortality assumptions used by the Florida Retirement System (FRS) as required under F.S., Chapter 2015-157 based upon the July 1, 2017 FRS Actuarial Valuation. The remaining actuarial assumptions and methods remain unchanged from the previous Actuarial Valuation and are outlined on Table X.

Comparison of October 1, 2016 and October 1, 2017 Valuation Results

Table II of our report provides information of a comparative nature. The left columns of the Table indicate the costs as calculated for the October 1, 2016 Actuarial Valuation. The center columns indicate the costs as calculated for October 1, 2017, prior to the update in actuarial assumptions. The right columns indicate the costs as calculated for October 1, 2017, after the update in actuarial assumptions.

Comparing the left and center columns of Table II shows the effect of Plan experience during the year. The number of active participants decreased by approximately 17%. Covered payroll decreased by approximately 6.6%. Total Plan membership decreased by approximately 4%. The total normal cost increased as a dollar amount but remained level as a percentage of covered payroll. The minimum Town funding requirement and the unfunded actuarial accrued liability decreased both as a dollar amount and as a percentage of covered payroll.

Comparing the right and center columns of Table II shows the effect of the update of the actuarial assumptions. The total normal cost, unfunded actuarial accrued liability and minimum Town funding requirement increased slightly as a dollar amount and as a percentage of covered payroll.

The Plan assets exceed the value of vested accrued benefits, resulting in a Vested Benefit Security Ratio (VBSR) of 117.6% (117.7% prior assumptions) which is an increase from 107.1% as of the October 1, 2016 Actuarial Valuation. The VBSR is measured on a market value of assets basis.

Plan Experience

Table VI indicates the Plan experienced an actuarial gain of \$1,073,674. This suggests actual overall Plan experience was more favorable than anticipated.

Table XV (salary, turnover and investment yield) provides figures on recent plan experience. Salary experience indicates actual salary increases averaged approximately 2.99% for fiscal year ended September 30, 2017. The salary increase assumption is 4.75%. Salary experience was generally a source of actuarial gain. Three, five and ten-year salary increase experience is 3.39%, 4.0% and 3.5%, respectively.

Employee turnover this year was 190% of assumed and was generally an additional source of actuarial gain. Three, five and ten-year average employee turnover are 160%, 150% and 130% of assumed, respectively.

The actuarial value investment return of 13.2% was more than the assumed 7.0%. Actuarial value is the fair market value of assets. Investment return was a source of actuarial gain during the year. Three, five and ten-year average investment returns is 15.4%, 10.7% and 7.5%, respectively on an actuarial (market) value basis.

Member Census and Financial Data

The Town submitted Member census data as of October 1, 2017 used for this actuarial valuation to us. This information contains name, Social Security number, date of birth, date of hire, employee contributions and October 1, 2017 rate of pay. Dates of termination and retirement are provided where applicable. The Town updated information on inactive participants including retirees, beneficiaries, DROPs and vested terminations.

We received financial information as of September 30, 2017 concerning Plan assets from the Town. We do not audit the Member census data and asset information that is provided to us; however, we perform certain reasonableness checks. The Plan is responsible for the accuracy of the data.

Summary

In our opinion the benefits provided for under the current Plan will be sufficiently funded through the payment of the amount as indicated in this and future Actuarial Valuation reports. We will continue to update you on the future payment requirements for the Plan through our actuarial valuation reports. These reports will also continue to monitor emerging experience of the Plan.

The actuarial assumptions used in this Actuarial Valuation are as adopted by the Board of Trustees. In 2013, the investment return assumption and salary increase assumptions were adjusted to recognize lower expected long-term inflation. The mortality assumptions have been updated to use the mortality assumptions used by the Florida Retirement System (FRS) as required under F.S., Chapter 2015-157. All other assumptions are set based on plan expected experience. We suggest an Experience Study be performed this year to ensure the assumptions continue to be aligned with Plan experience. Each assumption represents an estimate of future Plan experience.

If all actuarial assumptions are met and if all future minimum required contributions are paid, Plan assets will be sufficient to pay all Plan benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. Plan minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act with normal cost determined as a level percent of covered payroll and a level dollar amortization payment using an initial amortization period of 30 years.

The Unfunded Actuarial Accrued Liability (UAAL) may not be appropriate for assessing the sufficiency of Plan assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

The Unfunded Actuarial Present Value of Vested Accrued Benefits and the corresponding Vested Benefit Security Ratio may be appropriate for assessing the sufficiency of Plan assets to meet the estimated cost of settling benefit obligations but may not be appropriate for assessing the need for or the amount of future contributions.

The GASB Net Pension Liability and Plan Fiduciary Net Position as a Percentage of Total Pension Liability may not be appropriate for assessing the sufficiency of Plan assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

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 anticipated under the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period) and changes in Plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report should not be relied upon for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This report may be provided to parties other than the Board only in its entirety and only with the permission of an approved representative of the Board.

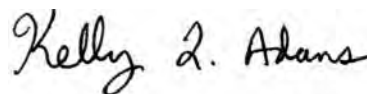
The signing actuaries are independent of the Plan sponsor.

The undersigned are Members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. We are available to respond to any questions with regards to matters covered in this report.

Very truly yours,



Lawrence F. Wilson, A.S.A., E.A.
Senior Consultant and Actuary



Kelly L. Adams, A.S.A., E.A.
Consultant and Actuary

Summary of Retirement Plan Costs

	<u>October 1, 2016*</u>		<u>Prior Assumptions October 1, 2017</u>		<u>Current Assumptions October 1, 2017</u>	
	<u>Cost</u>	<u>% of</u>	<u>Cost</u>	<u>% of</u>	<u>Cost</u>	<u>% of</u>
	<u>Data</u>	<u>Payroll</u>	<u>Data</u>	<u>Payroll</u>	<u>Data</u>	<u>Payroll</u>
A. Participant Data Summary (Table III)						
1. Active employees	46	N/A	38	N/A	38	N/A
2. Terminated vested	50	N/A	50	N/A	50	N/A
3. Receiving benefits	20	N/A	23	N/A	23	N/A
4. Annual payroll of employees	\$ 2,189,775	100.0%	\$ 2,045,341	100.0%	\$ 2,045,341	100.0%
B. Total Normal Cost						
1. Age retirement benefits	\$ 185,393	10.1%	\$ 199,477	9.8%	\$ 202,676	9.9%
2. Termination benefits	25,608	1.4%	37,823	1.8%	37,797	1.8%
3. Survivor benefits	3,251	0.2%	2,888	0.1%	2,422	0.1%
4. Estimated administrative expense	2,575	0.1%	425	0.0%	425	0.0%
5. Total annual normal cost	\$ 216,827	11.8%	\$ 240,613	11.8%	\$ 243,320	11.9%
C. Total Actuarial Accrued Liability						
1. Age retirement benefits active employees	\$ 5,774,007	314.1%	\$ 4,449,262	217.5%	\$ 4,473,521	218.7%
2. Termination benefits active employees	109,038	5.9%	2,911	0.1%	1,984	0.1%
3. Survivor benefits active employees	46,188	2.5%	38,490	1.9%	30,246	1.5%
4. Retired or terminated vested participants receiving benefits	2,515,094	136.8%	3,703,119	181.1%	3,703,119	181.1%
5. Terminated vested participants entitled to future benefits	1,272,457	69.2%	1,618,315	79.1%	1,618,315	79.1%
6. Deceased participants whose beneficiaries are receiving benefits	83,325	4.5%	76,179	3.7%	76,179	3.7%
7. Miscellaneous liability	0	0.0%	1,172	0.1%	1,172	0.1%
8. Total actuarial accrued liability	\$ 9,800,109	533.1%	\$ 9,889,448	483.5%	\$ 9,904,536	484.2%
D. Assets (Table IV)	\$ 9,134,338	496.9%	\$ 10,408,723	508.9%	\$ 10,408,723	508.9%
E. Unfunded Actuarial Accrued Liability (C-D)	\$ 665,771	36.2%	\$ (519,275)	(25.4%)	\$ (504,187)	(24.7%)

* As reported by prior Actuary

Summary of Retirement Plan Costs

	October 1, 2016*		Prior Assumptions October 1, 2017		Current Assumptions October 1, 2017	
	Cost Data	% of Payroll	Cost Data	% of Payroll	Cost Data	% of Payroll
F. Minimum Required Contribution						
1. Total normal cost	\$ 216,827	11.8%	\$ 240,613	11.8%	\$ 243,320	11.9%
2. Amortization of unfunded liability	92,763	5.0%	(39,109)	(1.9%)	(37,973)	(1.9%)
3. Interest adjustment	10,836	0.6%	8,028	0.4%	8,192	0.4%
4. Total payment	\$ 320,426	17.4%	\$ 209,532	10.2%	\$ 213,539	10.4%
G. Minimum Required Contribution (F.S., 112.66 (13)) (Greater of F.1. and F.4.)	\$ 320,426	17.4%	\$ 240,613	11.8%	\$ 243,320	11.9%
H. Contribution Sources						
1. Expected employee	\$ 62,784	3.3%	\$ 65,913	3.2%	\$ 65,913	3.2%
2. Expected Town	\$ 257,642	14.1%	\$ 174,700	8.5%	\$ 177,407	8.7%
I. Actuarial Gains / (Losses)	\$ 1,393,670	75.8%	\$ 1,073,674	52.5%	\$ 1,073,674	52.5%
J. Actuarial Present Value of Vested Accrued Benefits						
1. Retired, terminated vested and beneficiaries receiving benefits	\$ 2,598,419	141.4%	\$ 3,779,298	184.8%	\$ 3,779,298	184.8%
2. Terminated vested participants entitled to future benefits and miscellaneous	1,272,457	69.2%	1,619,487	79.2%	1,619,487	79.2%
3. Active participants entitled to future benefits	4,657,103	253.3%	3,445,731	168.5%	3,455,292	168.9%
4. Total actuarial present value of vested accrued benefits	\$ 8,527,979	463.9%	\$ 8,844,516	432.4%	\$ 8,854,077	432.9%
K. Unfunded Actuarial Present Value of Vested Accrued Benefits (J - D, not less than zero)	\$ 0	0.0%	\$ 0	0.0%	\$ 0	0.0%
L. Vested Benefit Security Ratio (D ÷ J)	107.1%	N/A	117.7%	N/A	117.6%	N/A

* As reported by prior Actuary

Comparison of Cost Data of October 1, 2016 and October 1, 2017 Valuations

	October 1, 2016*		Prior Assumptions October 1, 2017		Current Assumptions October 1, 2017	
	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation
A. Participants						
1. Active Employees	46	N/A	38	N/A	38	N/A
2. Terminated Vested	50	N/A	50	N/A	50	N/A
3. Receiving Benefits	20	N/A	23	N/A	23	N/A
4. Annual Payroll of Active Employees	\$ 2,189,775	100.0%	\$ 2,045,341	100.0%	\$ 2,045,341	100.0%
B. Actuarial Present Value of Future Benefits	\$ 11,182,302	608.3%	\$ 11,217,913	548.5%	\$ 11,259,592	550.5%
C. Normal Cost (including expenses)	\$ 216,827	11.8%	\$ 240,613	11.8%	\$ 243,320	11.9%
D. Actuarial Accrued Liability	\$ 9,800,109	533.1%	\$ 9,889,448	483.5%	\$ 9,904,536	484.2%
E. Actuarial Value of Assets **	\$ 9,134,338	496.9%	\$ 10,408,723	508.9%	\$ 10,408,723	508.9%
F. Unfunded Actuarial Accrued Liability	\$ 665,771	36.2%	\$ (519,275)	(25.4%)	\$ (504,187)	(24.7%)
G. Minimum Town Funding Requirement	\$ 257,642	14.0%	\$ 174,700	8.5%	\$ 177,407	8.7%
H. Vested Benefit Security Ratio	107.1%	N/A	117.7%	N/A	117.6%	N/A

* As reported by prior Actuary

** Fair Market Value

Table III

**Characteristics of Participants in
Actuarial Valuation as of October 1, 2017**

A. Active Plan Participants Summary

1. Active participants fully vested	28	
2. Active participants partially vested	0	
3. Active participants non-vested	10	
4. Total active participants	38	
5. Annual rate of pay of employees	\$ 2,045,341	

B. Retired and Terminated Vested Participant Summary

1. Retired or terminated vested participants receiving benefits	20	
2. Terminated vested participants entitled to future benefits	50	
3. Deceased participants whose beneficiaries are receiving benefits	3	

C. Projected Annual Retirement Benefits

1. Retired or terminated vested receiving benefits	\$ 343,977	
2. Terminated vested entitled to future benefits	\$ 390,256	
3. Beneficiaries of deceased participants	\$ 12,604	

Table IV

Statement of Assets as of October 1, 2017*

	<u>Market Value</u>
A. <u>Cash and Cash Equivalents</u>	\$ 41,625
B. <u>General Investments</u>	
1. Broad Market HQ Bond Fund	\$ 1,633,780
2. Core Plus Fixed Income	2,403,843
3. High Quality Growth	832,500
4. Diversified Value	822,093
5. Russell 1000 Enhanced Index	2,424,655
6. Diversified Small to Mid Cap	1,144,687
7. International Blend	1,103,062
C. <u>Receivables</u>	
1. Member Contributions	\$ 2,478
2. Accrued Interest and Dividends	0
3. Accounts Receivable	0
D. <u>Payables</u>	\$ 0
E. <u>Total Market Value of Assets</u> (A + B + C - D)	\$ 10,408,723

* As reported in the Florida Municipal Pension Trust Fund (FMPTF) Statement

Table V

Reconciliation of Plan Assets

A. <u>Market Value as of October 1, 2016</u>		\$	9,134,338
B. <u>Receipts During Period</u>			
1. Town contributions			
a. Member	\$	65,433	
b. Town		311,423	
c. Total		<u> </u>	\$ 376,856
2. Net investment return			
a. Earnings/(losses) as disclosed in FMPTF statement	\$	1,231,364	
b. Investment expenses		<u>(17,383)</u>	
c. Net investment return			\$ 1,213,981
3. Total receipts during period			\$ 1,590,837
C. <u>Disbursements During Period</u>			
1. Monthly benefit payments	\$	314,612	
2. Refund of member contributions		1,415	
3. Administrative expenses		<u>425</u>	
4. Net disbursements during period			\$ 316,452
D. <u>Market Value as of September 30, 2017</u>			\$ 10,408,723

Actuarial Gains / (Losses) for
Plan Year Ended September 30, 2017

A. Derivation of Actuarial Gain / (Loss)

1. Town normal cost previous valuation*	\$ 154,043
2. Unfunded actuarial accrued liability previous valuation*	665,771
3. Town contributions previous year	311,423
4. Interest on:	
(a) Town normal cost	\$ 10,783
(b) Unfunded actuarial accrued liability	46,604
(c) Town contributions	11,379
(d) Net interest: (a) + (b) - (c)	<u>\$ 46,008</u>
5. Increase (decrease) in accrued liability due to assumption changes	\$ 15,088
6. Expected unfunded actuarial accrued liability current year: (1. + 2. - 3. + 4. + 5.)	\$ 569,487
7. Actual unfunded actuarial accrued liability current year	<u>(504,187)</u>
8. Actuarial gain / (loss): (6. - 7.)	<u>\$ 1,073,674</u>

B. Approximate Portion of Gain / (Loss)
due to Investments

1. Actuarial value of assets previous year	\$ 9,134,338
2. Contributions during year	376,856
3. Benefits and administrative expenses during year	316,452
4. Expected appreciation for period	<u>641,997</u>
5. Expected actuarial value of assets current year: (1. + 2. - 3. + 4.)	\$ 9,836,739
6. Actual actuarial value of assets current year	\$ 10,408,723
7. Approximate gain / (loss) due to investments: (6. - 5.)	\$ 571,984

C. Approximate Portion of Gain / (Loss)
due to Liabilities: (A.8. - B.7.) \$ 501,690

* As reported by prior Actuary

Table VII

Amortization of Unfunded Actuarial Accrued Liability

A. Unfunded Actuarial Accrued Liability

<u>Date</u>	<u>Unfunded Accrued Liability</u>	<u>Amortization Payment</u>
October 1, 2017	\$ (504,187)	\$ (37,973)
October 1, 2018	\$ (498,849)	\$ (37,973)
October 1, 2019	\$ (493,137)	\$ (37,973)
October 1, 2020	\$ (487,025)	\$ (37,973)
October 1, 2021	\$ (480,486)	\$ (37,973)
...		
...		
October 1, 2047	\$ 0	\$ 0

Accounting Disclosure Exhibit

	<u>Actuarial Valuation 10/01/2016*</u>	<u>Prior Assumptions 10/01/2016</u>	<u>Current Assumptions 10/01/2017</u>
I. <u>Number of Plan Members</u>			
a. Retirees and beneficiaries receiving benefits	20	23	23
b. Terminated plan members entitled to but not yet receiving benefits	50	50	50
c. Active plan members	46	38	38
d. Total	<u>116</u>	<u>111</u>	<u>111</u>
II. <u>Financial Accounting Standards Board Allocation</u> <u>As of October 1, 2017</u>			
A. <u>Statement of Accumulated Plan Benefits</u>			
1. Actuarial present value of accumulated vested plan benefits			
a. Participants currently receiving benefits	\$ 2,598,419	\$ 3,779,298	\$ 3,779,298
b. Other participants	5,929,560	5,065,218	5,074,779
c. Total	<u>\$ 8,527,979</u>	<u>\$ 8,844,516</u>	<u>\$ 8,854,077</u>
2. Actuarial present value of accumulated non-vested plan benefits			
	<u>\$ 227,067</u>	<u>\$ 76,165</u>	<u>\$ 76,369</u>
3. Total actuarial present value of accumulated plan benefits			
	\$ 8,755,046	\$ 8,920,681	\$ 8,930,446
B. <u>Statement of Change in Accumulated Plan Benefits</u>			
1. Actuarial present value of accumulated plan benefits as of October 1, 2016*			\$ 8,755,046
2. Increase (decrease) during year attributable to:			
a. Change in actuarial assumptions			\$ 9,765
b. Benefits paid including refunds			(316,027)
c. Other, including benefits accumulated, increase for interest due to decrease in the discount period			481,662
d. Net increase			<u>\$ 175,400</u>
3. Actuarial present value of accumulated plan benefits as of October 1, 2017			\$ 8,930,446
C. <u>Significant Matters Affecting Calculations</u>			
1. Assumed rate of return used in determining actuarial present values			7.0%
2. Change in plan provisions			None
3. Change in actuarial assumptions			See Table X, Item J.

* As reported by prior Actuary

Accounting Disclosure Exhibit

III. Net Pension Liability and Related Ratios (GASB No. 67)

Measurement date	9/30/2014	9/30/2015	9/30/2016 *	9/30/2017	Projected 9/30/2018 **
A. <u>Total Pension Liability (TPL)</u>					
Service Cost	\$ 181,957	\$ 217,717	\$ 184,303	\$ 214,252	\$ 242,895
Interest	569,116	604,681	642,052	689,944	697,822
Benefit Changes	(285,187)	(86,307)	(32,351)	0	0
Difference Between Actual and Expected Experience	(571,357)	2,980	19,887	(29,834)	(498,830)
Assumption Changes	186,132	0	120,280	0	15,088
Benefit Payments, including Refunds of Member Contributions	(194,264)	(196,624)	(248,893)	(316,027)	(357,091)
Net Change in Total Pension Liability (TPL)	\$ (113,603)	\$ 542,447	\$ 685,278	\$ 558,335	99,884
Total Pension Liability (TPL) - (beginning of year)	8,715,821	8,602,218	9,144,665	9,829,943	10,388,278
Total Pension Liability (TPL) - (end of year)	<u>\$ 8,602,218</u>	<u>\$ 9,144,665</u>	<u>\$ 9,829,943</u>	<u>\$ 10,388,278</u>	<u>\$ 10,488,162</u>
B. <u>Plan Fiduciary Net Position</u>					
Contributions - Town	\$ 408,449	\$ 439,208	\$ 419,653	\$ 311,423	\$ 177,407
Contributions - Member	9,876	25,606	48,259	65,433	65,913
Net Investment Income	208,290	342,918	2,010,513	1,213,981	724,614
Benefit Payments, including Refunds of Member Contributions	(194,264)	(196,624)	(248,893)	(316,027)	(357,091)
Administrative Expenses	(25,993)	(26,172)	(2,575)	(425)	(425)
Other	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	406,358	584,936	2,226,957	1,274,385	610,418
Plan Fiduciary Net Position - (beginning of year)	5,916,087	6,322,445	6,907,381	9,134,338	10,408,723
Plan Fiduciary Net Position - (end of year)	<u>\$ 6,322,445</u>	<u>\$ 6,907,381</u>	<u>\$ 9,134,338</u>	<u>\$ 10,408,723</u>	<u>\$ 11,019,141</u>
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 2,279,773	\$ 2,237,284	\$ 695,605	\$ (20,445)	\$ (530,979)
D. <u>Plan Fiduciary Net Position as a Percentage of TPL: (B) / (A)</u>	73.50 %	75.53 %	92.92 %	100.20 %	105.06 %
E. <u>Covered Employee Payroll***</u>	\$ 1,971,521	\$ 1,957,935	\$ 2,131,622	\$ 2,189,775	\$ 2,045,341
F. <u>NPL as a Percentage of Covered Employee Payroll: (C) / (E)</u>	115.64 %	114.27 %	32.63 %	(0.93)%	(25.96)%
G. <u>Notes to Schedule:</u>					
Valuation Date	10/01/2013	10/01/2014	10/01/2015	10/01/2016	10/01/2017
Reporting Date (GASB No. 68)	09/30/2015	09/30/2016	09/30/2017	09/30/2018	09/30/2019
Update procedures used to roll forward the TPL to the measurement dates					
See Table VIII, Item V. for prior benefit and assumption changes.					
See Table X., Item J. for assumption changes during the year. No benefit changes were made during the year.					

* As reported by prior Actuary and Town's Financial Statements

** Projected - actual amounts will be available after fiscal year end

*** Reported payroll on which contributions to the Plan are based as provided under GASB No. 82



Accounting Disclosure Exhibit

IV. Schedule of Employer Contributions (GASB No. 67)

<u>Fiscal Year Ended 9/30</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution ¹</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll ²</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2008	\$ 498,597	\$ 498,597	\$ 0	\$ 2,526,343	19.74%
2009	513,656	513,656	0	2,411,459	21.30%
2010	608,486	608,486	0	2,365,164	25.73%
2011	599,266	610,000	(10,734)	2,323,866	26.25%
2012	592,735	1,068,107	(475,372)	2,482,532	43.02%
2013	497,236	497,236	0	2,070,199	24.02%
2014	408,449	408,449	0	1,971,521	20.72%
2015	439,208	439,208	0	1,957,935	22.43%
2016	395,500	419,653	(24,153)	2,131,622	19.69%
2017 ³	257,642	311,423	(53,781)	2,189,775	14.22%
2018 ⁴	177,407	177,407	0	2,045,341	8.67%

¹ Per Town Financial Statements prior to September 30, 2016

² Reported payroll on which contributions to the Plan are based as provided under GASB No. 82

³ As reported by prior Actuary

⁴ Projected - actual amounts will be available after fiscal year end

Accounting Disclosure Exhibit

V. Notes to Schedule of Contributions (GASB No. 67)

Valuation Date: Actuarially determined contributions are calculated as of October 1st - one year prior the fiscal year end in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level dollar, closed
Amortization Period	30 years
Asset Valuation Method	Fair Market Value
Inflation	3.00%
Salary Increases	4.75%
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	For females, RP 2000 Annuitant Healthy Participant Mortality Tables with 100% White Collar adjustment, projected with generational improvements with Scale BB. For males, RP 2000 Annuitant Healthy Participant Mortality Tables with 50% White Collar / 50% Blue Collar adjustment, projected with generational improvements with Scale BB.

Other Information:

Benefit Changes

2015: For employees not represented by Local 630 or in dispatcher positions - final average monthly earnings changed to five year average, for participants hired after June 7, 2016 multiplier reduced to 2.0%, maximum annual benefit is 75%, effective June 7, 2016 employee contributions of 3.0% of earnings. 2013: For employees represented by Local 630 - final average monthly earnings changed to five year average, multiplier reduced to 2.0% for credited service after September 30, 2013, maximum annual benefit reduced to 75% of final average earnings, employee contributions of 1.0% of earnings effective October 1, 2013, 2% of earnings effective October 1, 2014 and 3% of earnings thereafter added to the plan. For employees in dispatcher positions - final average monthly earnings changed to five year average, multiplier reduced to 2.25% for credited service after June 3, 2014 (2.0% if hired on or after June 3, 2014), maximum annual benefit reduced to 90% of final average earnings (75% if hired on or after June 3, 2014), employee contributions of 2.0% of earnings effective June 3, 2014, 3.5% of earnings effective October 1, 2014 and 5.0% of earnings thereafter added to the plan.

Accounting Disclosure Exhibit

V. Notes to Schedule of Contributions (GASB No. 67) (cont'd)

Assumption Changes

2016: Mortality updated 2013: Investment return updated to 7% compounded annually, net of investment expenses. Salary increase factors updated. 2009: The Town will no longer purchase annuities effective October 1, 2010. 2007: Mortality tables for healthy participants updated to the RP 2000 Combined Mortality Table with separate rates for males and females, projected with generational improvements with Scale AA. Mortality tables for disabled participants updated to RP 2000 Disabled Mortality Table with separate rates for males and females, projected with generational improvements with Scale AA. The actuarial cost method updated to the Entrv Age Normal cost method.

VI. Discount Rate (GASB No. 67)

A discount rate of 7.0% was used to measure the TPL. This discount rate was based on the expected rate of return on Plan investments of 7.0%. The projection of cash flows used to determine this discount rate assumed member contributions will be made at the current contribution rate and employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member contribution rate. Based on these assumptions, the Plan's fiduciary net position was projected to be available to make all projected future expected benefit payments of current Plan members. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the TPL.

VII. Sensitivity of the NPL to the Discount Rate Assumption (GASB No. 67)

Measurement date: September 30, 2017

	<u>1% Decrease *</u>	<u>Current Discount Rate</u>	<u>1% Increase *</u>
Discount Rate	6%	7%	8%
NPL	\$ 918,104	\$ (20,445)	\$ (1,414,340)

Measurement date: September 30, 2018 **

	<u>1% Decrease</u>	<u>Current Discount Rate</u>	<u>1% Increase</u>
Discount Rate	6%	7%	8%
NPL	\$ 416,594	\$ (530,979)	\$ (1,938,276)

* Estimated reflecting prior actuary's report

** Projected - actual amounts will be available after fiscal year end

Accounting Disclosure Exhibit

VIII. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - Reporting Date (GASB No. 68)

Pension Expense for Fiscal Year Ending September 30, 2018 \$ (132,322)

Summary of Outstanding Deferred Inflows and Outflows of Resources as of September 30, 2018

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between actual and expected experience on liabilities	6,726	18,784
Changes of assumptions or other inputs	40,093	0
Net difference between projected and actual earnings on System investments	0	1,283,821
Total	<u>\$ 46,819</u>	<u>\$ 1,302,605</u>

Projected Deferred Outflows for Town Contributions to Be Recognized in Pension Expense for Fiscal Year Ending September 30, 2019 \$ 177,407

Summary of Deferred Outflows and Inflows of Resources to Be Recognized in Pension Expense in Future Years.

<u>Year Ending 30-Sep</u>	<u>Amount</u>
2019	\$ (318,432)
2020	(404,488)
2021	(418,377)
2022	(114,491)
2023	0
Thereafter	0

Accounting Disclosure Exhibit

The following information is not required to be disclosed but is provided for informational purposes.

IX. Components of Pension Expense (GASB No. 68)

Measurement Date	9/30/2014	9/30/2015*	9/30/2016*	9/30/2017	Projected 9/30/2018**
Service Cost	\$ 181,957	\$ 217,717	\$ 184,303	\$ 214,252	\$ 242,895
Interest on Total Pension Liability	569,116	604,681	642,052	689,944	697,822
Current-Period Benefit Changes	(285,187)	(86,307)	(32,351)	0	0
Contributions - Member	(9,876)	(25,606)	(48,259)	(65,433)	(65,913)
Projected Earnings on System Investments	(421,058)	(451,042)	(491,092)	(641,518)	(724,614)
Administrative Expenses	25,993	26,172	2,575	425	425
Other Changes in System Fiduciary Net Position	0	0	0	0	0
Recognition of Beginning Deferred Outflows / (Inflows) due to Liabilities	(124,266)	(123,305)	(76,582)	24,206	(165,791)
Recognition of Beginning Deferred Outflows / (Inflows) due to Assets	42,554	64,179	(239,706)	(354,198)	(354,200)
Total Pension Expense	<u>\$ (20,767)</u>	<u>\$ 226,489</u>	<u>\$ (59,060)</u>	<u>\$ (132,322)</u>	<u>\$ (369,376)</u>

* As reported by prior Actuary

** Projected - actual amounts will be available after fiscal year end

Accounting Disclosure Exhibit

The following information is not required to be disclosed but is provided for informational purposes.

X. Recognition of Deferred Outflows and (Inflows) Due to Liabilities - Measurement Date (GASB No. 68)

Recognition of Deferred Outflows due to Differences Between Actual and Expected Experience on Liabilities

Established	Initial Balance*	Initial Recognition Period	Remaining Recognition Period as of 9/30/2017	Recognition Amount for 2016 / 2017	Balance as of 9/30/2017
2013 / 2014	\$ 0	3.1	0.0	\$ 0	\$ 0
2014 / 2015	2,980	3.1	0.1	961	97
2015 / 2016	19,887	3.0	1.0	6,629	6,629
2016 / 2017	0	2.7	1.7	0	0
TOTAL				\$ 7,590	\$ 6,726

Recognition of Deferred (Inflows) due to Differences Between Actual and Expected Experience on Liabilities

Established	Initial Balance*	Initial Recognition Period	Remaining Recognition Period as of 9/30/2017	Recognition Amount for 2016 / 2017	Balance as of 9/30/2017
2013 / 2014	\$ (571,357)	3.1	0.0	\$ (18,430)	\$ 0
2014 / 2015	0	3.1	0.1	0	0
2015 / 2016	0	3.0	1.0	0	0
2016 / 2017	(29,834)	2.7	1.7	(11,050)	(18,784)
TOTAL				\$ (29,480)	\$ (18,784)

Recognition of Deferred Outflows due to Changes of Assumptions or Other Inputs

Established	Initial Balance*	Initial Recognition Period	Remaining Recognition Period as of 9/30/2017	Recognition Amount for 2016 / 2017	Balance as of 9/30/2017
2013 / 2014	\$ 186,132	3.1	0.0	\$ 6,003	\$ 0
2014 / 2015	0	3.1	0.1	0	0
2015 / 2016	120,280	3.0	1.0	40,093	40,093
2016 / 2017	0	2.7	1.7	0	0
TOTAL				\$ 46,096	\$ 40,093

*As reported by prior Actuary

Accounting Disclosure Exhibit

The following information is not required to be disclosed but is provided for informational purposes.

X. Recognition of Deferred Outflows and (Inflows) Due to Liabilities - Measurement Date (GASB No. 68) (cont'd)

Recognition of Deferred (Inflows) due to Changes of Assumptions or Other Inputs

Established	Initial Balance*	Initial Recognition Period	Remaining Recognition Period as of 9/30/2017	Recognition Amount for 2016 / 2017	Balance as of 9/30/2017
2013 / 2014	\$ 0	3.1	0.0	\$ 0	\$ 0
2014 / 2015	0	3.1	0.1	0	0
2015 / 2016	0	3.0	1.0	0	0
2016 / 2017	0	2.7	1.7	0	0
TOTAL				\$ 0	\$ 0

XI. Recognition of Deferred Outflows and (Inflows) Due to Assets - Measurement Date (GASB No. 68)

Recognition of Deferred Outflows / (Inflows) due to Difference Between Projected and Actual Earnings on Plan Investments

Established	Initial Balance*	Initial Recognition Period	Remaining Recognition Period as of 9/30/2017	Recognition Amount for 2016 / 2017	Balance as of 9/30/2017
2013 / 2014	\$ 212,768	5	1	\$ 42,554	\$ 42,552
2014 / 2015	108,124	5	2	21,625	43,249
2015 / 2016	(1,519,421)	5	3	(303,884)	(911,652)
2016 / 2017	(572,463)	5	4	(114,493)	(457,970)
TOTAL				\$ (354,198)	\$ (1,283,821)

*As reported by prior Actuary

Outline of Principal Provisions of the Retirement Plan

A. Effective Date:

January 7, 1975. Latest amendment 11-16 on June 7, 2016.

B. Eligibility Requirements:

General employee of the Town and completion of one year of service.

C. Credited Service:

Years of service completed with a minimum of 1000 hours. [Plan is being administered based upon completed months from date of employment to retirement date (or date of termination, if earlier)].

D. Earnings:

Base pay excluding overtime pay, commissions, bonuses and any other extra compensation. Does not include lump sum payments for unused accumulated leave time.

E. Final Average Monthly Earnings:

For employees represented by Local 630, monthly average for the five year period immediately preceding retirement. (Plan being administered to use highest five years of the last ten years preceding retirement.)

For employees in dispatcher positions, monthly average for the highest five years of the last ten years preceding retirement.

For all other employees, monthly average for the highest five years of the last ten years preceding retirement - not less than average earnings as of June 7, 2016.

F. Normal Retirement:

1. Eligibility:

Earlier of:

- (a) Attainment of age 65 and completion of 10 years of credited service.
- (b) Attainment of age 62 and completion of 20 years of credited service.

2. Benefit:

For employees represented by Local 630, 2.5% times final average monthly earnings times credited service through September 30, 2013 and 2.0% times final average monthly earnings times credited service after September 30, 2013, subject to a minimum pension of \$50 and a maximum annual benefit of 75% of final average earnings (but not less than the participant's pension benefit accrued as of September 30, 2013).

Outline of Principal Provisions of the Retirement Plan

F. Normal Retirement (cont'd):

For employees in dispatcher positions hired before June 3, 2014, 2.5% times final average monthly earnings times credited service through June 3, 2014 and 2.25% times final average monthly earnings times credited service thereafter, subject to a minimum pension of \$50 and a maximum annual benefit of 90% of final average earnings.

For employees in dispatcher positions hired on or after June 3, 2014, 2.0% times final average monthly earnings times credited service, subject to a minimum pension of \$50 and a maximum annual benefit of 75% of final average earnings.

For all other employees hired before June 7, 2016, 2.5% times final average monthly earnings times credited service, subject to a minimum pension of \$50 and a maximum annual benefit of 75% of final average earnings. The maximum annual benefit cannot be less than the maximum benefit as of June 7, 2016.

For all other employees hired on or after June 7, 2016, 2.0% times final average monthly earnings times credited service, subject to a minimum pension of \$50 and a maximum annual benefit of 75% of final average earnings.

G. Early Retirement:

1. Eligibility:

Permitted within ten (10) years preceding normal retirement date.

2. Benefit:

Benefit accrued to date of retirement, reduced by 1/15th for each of the first five years and 1/30th for each year thereafter that early retirement date precedes normal retirement date.

H. Delayed Retirement:

1. Eligibility:

Any first day of a month past normal retirement date.

2. Benefit:

Accrued monthly pension based upon credited service and final average monthly earnings as of delayed retirement date.

Outline of Principal Provisions of the Retirement Plan

I. Death Benefit:

1. If a married participant dies while eligible for early retirement, the surviving spouse receives a life annuity equal to 50% of the benefit due the employee had he or she elected the joint and survivorship annuity and retired the day before death.
2. If an unmarried participant dies while eligible for early retirement, the beneficiary receives a 10 year certain benefit equal to the benefit due the employee had he or she elected the 10 year certain and life option and retired the day before death.

J. Employee Contributions

For employees represented by Local 630 - 1% of earnings effective October 1, 2013, 2% of earnings effective October 1, 2014 and 3% of earnings thereafter.

For employees in dispatcher positions - 2% of earnings effective June 3, 2014, 3.5% of earnings effective October 1, 2014 and 5% of earnings thereafter.

For all other employees - 3% of earnings effective June 7, 2016.

K. Benefit Upon Termination of Service

1. Benefit:

Accrued monthly pension based upon final average monthly earnings and credited service as of date of termination times the vesting percentage shown below payable at normal retirement date.

2. Vesting Schedule:

<u>Years of Credited Service</u>	<u>Vesting Percentage</u>
Less than 5	0%
5 or more years	100%

L. Normal Form of Payment of Retirement Income

Life annuity with optional annuity forms available. Effective October 1, 2010, Town no longer purchases annuities.

Outline of Principal Provisions of the Retirement Plan

M. Supplemental Health Benefit

1. Eligibility:

Participants who terminate employment on or after August 1, 2000 (effective date of Ordinance) and who receive monthly benefits, and their beneficiaries.

2. Benefit:

Monthly benefit calculated as \$5.00 for each year of credited service.

N. Changes Since Prior Valuation:

None

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

A. Mortality

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

Sample Ages (2017)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	30.42	33.47	29.99
60	25.49	28.45	25.32	28.35
62	23.58	26.49	23.48	26.43

Sample Ages (2037)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	32.57	35.32	32.16
60	27.67	30.29	27.52	30.21
62	25.76	28.32	25.68	28.26

B. Investment Return

7.0%, compounded annually, net of investment expenses - includes inflation of 2.75%.

C. Allowances for Expenses or Contingencies

Previous year's actual administrative expenses.

**Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation**

D. Employee Withdrawal Rates

Withdrawal rates for males and for females were used in accordance with the following illustrative example:

<u>Age</u>	<u>Withdrawal Rates Per 100 Employees</u>	
	<u>Males</u>	<u>Females</u>
25	14.8	16.5
35	9.1	11.9
45	7.9	10.0
55	6.1	7.9

E. Salary Increase Factors

Current salary is assumed to increase at a rate equal to 4.75% per year. General increase in wage level due to inflation is 3.75%.

F. Assumed Retirement Age

The earlier of (a) age 65 with 10 years of service and (b) age 62 with 20 years of service.

G. Disability Rates

None.

H. Asset Valuation Method

Fair Market Value

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

I. Cost Method

Normal Retirement, Termination and Death Benefits: Entry-Age-Normal Cost Method.

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his entry age to his assumed retirement age to fund his estimated benefits, assuming the Plan had always been in effect. The normal cost for the Plan is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the Plan is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the assets of the Plan.

J. Changes Since Prior Valuation:

Mortality was:

For females, RP 2000 Annuitant Healthy Participant Mortality Tables with 100% White Collar adjustment, projected with generational improvements with Scale BB. For males, RP 2000 Annuitant Healthy Participant Mortality Tables with 50% White Collar / 50% Blue Collar adjustment, projected with generational improvements with Scale BB.

Table XI

**Distribution by Attained Age Groups
and Service Groups as of October 1, 2017**

<u>Attained Age Group</u>	-----COMPLETED YEARS OF SERVICE-----							<u>Total</u>
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30 & Over</u>	
Under 25	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
30-34	0	1	0	0	0	0	0	1
35-39	4	1	0	0	0	0	0	5
40-44	1	0	0	1	0	0	0	2
45-49	0	4	0	1	0	0	0	5
50-54	2	0	1	1	0	2	0	6
55-59	3	2	2	2	0	1	1	11
60-64	0	1	3	1	0	1	1	7
65 & Over	0	0	0	1	0	0	0	1
TOTAL	10	9	6	7	0	4	2	38
				<u>10/01/2016</u>		<u>10/01/2017</u>		
Average Attained Age				50.7 years		52.2 years		
Average Hire Age				38.2 years		39.9 years		
Average Pay				\$ 47,604		\$ 47,218		
Percent Female				N/A		31.6%		

**Statistics for Participants Entitled to Deferred Benefits
and Participants Receiving Benefits**

A. Entitled to Deferred Benefits

<u>Current Age Group</u>	<u>Count</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Less than 40	9	\$ 85,943	\$ 9,549
40-44	6	48,995	8,166
45-49	7	42,947	6,135
50-54	10	107,041	10,704
55-59	13	73,867	5,682
60-64	5	31,463	6,293
65 & Over	-	-	-
TOTAL	50	\$ 390,256	\$ 7,805

B. Receiving Benefits

<u>Current Age Group</u>	<u>Count</u>	<u>Total Annual Benefit</u>	<u>Average Annual Benefit</u>
Less than 50	1	\$ 9,159	\$ 9,159
50-54	-	-	-
55-59	2	16,525	8,263
60-64	6	134,325	22,388
65-69	11	159,492	14,499
70-74	3	37,080	12,360
75 & Over	-	-	-
TOTAL	23	\$ 356,581	\$ 15,504

Reconciliation of Employee Data**A. Active Participants**

1. Active participants previous year*	46
2. Retired during year	(3)
3. Died during year	0
4. Terminated non-vested during year	(1)
5. Terminated vested during year	(4)
6. New active participants	0
7. Reinstated during year	0
8. Active participants current year	<u>38</u>

B. Participants Receiving Benefits

1. Participants receiving benefits previous year*	20
2. New retired participants	3
3. New terminated vested receiving benefits	1
4. New disabled receiving benefits	0
5. New beneficiaries receiving benefits	0
6. Former DROPs now receiving benefits	0
7. Died or ceased payment during year	(1)
8. Retired or terminated vested receiving benefits current year	<u>23</u>

C. Terminated Vested Participants Entitled to Future Benefits

1. Terminated vested entitled previous year*	50
2. Died during year	0
3. Commenced receiving benefits during year	(1)
4. New terminated vested	4
5. Terminated vested paid lump sum	0
6. Rehired during year	0
7. Adjustment	(3)
8. Terminated vested entitled current year	<u>50</u>

* As reported by prior Actuary

Projected Retirement Benefits

<u>Fiscal Year</u>		<u>Projected Total Annual Payout</u>
2018	\$	357,091
2019	\$	500,192
2020	\$	524,353
2021	\$	548,754
2022	\$	621,863
2023	\$	680,206
2024	\$	706,013
2025	\$	806,391
2026	\$	878,605
2027	\$	929,750

The above projected payout of plan benefits during the next ten years is based on assumptions involving all decrements. Actual payouts may differ from the above estimates depending upon the death, salary and retirement experience of the plan. However, since the projected payment is recomputed each valuation date, there is an automatic correction to the extent that actual experience varies from expected experience.

Analysis of Investment Yield as of October 1, 2017

This Table sets forth the results of an analysis made of investment yields on the assets held under the Town of Orange Park General Employees Defined Benefit Plan and Trust.

The basic sources for this analysis were the Statements produced by the insurance carrier prior to fiscal year ending September 30, 2016 and the trust thereafter.

The basic data was initially checked for internal consistency. Since no difficulties were encountered with the data, yield rates were calculated directly from the transaction information submitted. A summary of the transaction information is set forth on the following page.

**Table XV
(Cont'd)**

Summary of Transaction Information

<u>Year Ending</u>	<u>Benefits Paid *</u>	<u>Administrative Expenses</u>	<u>Member Contributions</u>	<u>Town Contributions</u>	<u>Actuarial Value **</u>
09/30/2017	\$ 316,027	\$ 425	\$ 65,433	\$ 311,423	\$ 10,408,723
09/30/2016 ***	248,893	2,575	48,259	419,653	9,134,338
09/30/2015	196,624	26,172	25,606	439,208	6,907,381
09/30/2014	194,264	25,993	9,876	408,449	6,322,445
09/30/2013	177,467	26,585	0	497,236	5,916,087
09/30/2012	85,265	25,235	0	1,068,107	5,377,948
09/30/2011	19,973	23,464	0	610,000	4,050,451
09/30/2010	1,245,882	24,132	0	608,486	3,313,330
09/30/2009	1,347,483	22,272	0	513,656	3,941,366
09/30/2008	225,726	21,609	0	498,597	4,675,206
09/30/2007	1,499,755	21,562	0	414,328	4,183,201
09/30/2006	161,497	17,503	0	338,103	5,052,147
09/30/2005	0	15,765	0	329,529	4,599,406
09/30/2004	0	14,291	0	295,398	3,990,043
09/30/2003	13,565	13,054	0	272,288	3,461,963
09/30/2002	65,277	11,796	0	267,973	3,008,054

* Includes refund of member contributions, if any.

** Actuarial Value is Insurance Contract Value for years prior to fiscal year ending September 30, 2016 and Fair Market Value thereafter.

*** As reported by prior Actuary

**Table XV
(Cont'd)**

Recent Compensation, Termination and Investment Return Experience

Valuation Date	Compensation		Termination	Actuarial Value Yield *	Assumed Rate of Return
	% Increase (Decrease)	Assumed Increase	Ratio of Actual to Expected		
10/01/2017	2.99%	4.75%	1.9	13.2%	7.0%
10/01/2016 **	4.14%	4.75%	2.0	28.9%	7.0%
10/01/2015	3.05%	4.75%	1.1	5.3%	7.0%
10/01/2014	3.36%	4.75%	0.7	3.5%	7.0%
10/01/2013	6.7%	6.5%	2.4	4.4%	8.0% / 7.0%
10/01/2012	1.2%	6.5%	3.3	8.2%	8.0% / 7.0%
10/01/2011	1.7%	6.5%	0.9	4.7%	8.0% / 7.0%
10/01/2010	2.6%	6.5%	0.7	0.9%	8.0% / 7.0%
10/01/2009	4.9%	6.5%	0.6	2.9%	8.0% / 7.0%
10/01/2008	4.3%	6.5%	1.4	5.6%	8.0% / 7.0%
Last Three Years	3.39%	4.75%	1.6	15.4%	7.0%
Last Five Years	4.0%	5.1%	1.5	10.7%	7.2% / 7.0%
Last Ten Years	3.5%	5.8%	1.3	7.5%	7.6% / 7.0%

* Actuarial Value is Insurance Contract Value for years prior to October 1, 2016 and Fair Market Value thereafter.

** As reported by prior Actuary

Table XVI

Town Contribution Information

<u>Valuation Date</u>	<u>Contribution Fiscal Year End</u>	<u>Minimum Required Employer Contributions</u>	<u>Actual Employer Contributions Made</u>
10/01/2017	09/30/2018	\$ 177,407	N/A
10/01/2016 *	09/30/2017	\$ 257,642	\$ 311,423
10/01/2015	09/30/2016	\$ 395,500	\$ 419,653
10/01/2014	09/30/2015	\$ 439,208	\$ 439,208
10/01/2013	09/30/2014	\$ 408,449	\$ 408,449
10/01/2012	09/30/2013	\$ 497,236	\$ 497,236
10/01/2011	09/30/2012	\$ 592,735	\$ 1,068,107
10/01/2010	09/30/2011	\$ 599,266	\$ 610,000
10/01/2009	09/30/2010	\$ 608,486	\$ 608,486
10/01/2008	09/30/2009	\$ 513,656	\$ 513,656
10/01/2007	09/30/2008	\$ 498,597	\$ 498,597
10/01/2006	09/30/2007	\$ 414,328	\$ 414,328
10/01/2005	09/30/2006	\$ 338,103	\$ 338,103
10/01/2004	09/30/2005	\$ 329,529	\$ 329,529
10/01/2003	09/30/2004	\$ 295,398	\$ 295,398
10/01/2002	09/30/2003	\$ 272,288	\$ 272,288

* As reported by prior Actuary

Actuarial Valuation as of October 1, 2017**State Required Exhibit**

	<u>10/01/2016*</u>	Prior Assumptions <u>10/01/2017</u>	Current Assumptions <u>10/01/2017</u>
A. <u>Participant Data</u>			
1. Active participants	46	38	38
2. Retired participants and beneficiaries receiving benefits	20	23	23
3. Terminated vested participants	50	50	50
4. Annual payroll of employees	\$ 2,189,775	\$ 2,045,341	\$ 2,045,341
5. Annual benefits payable to those currently receiving benefits	\$ 252,822	\$ 356,581	\$ 356,581
B. <u>Value of Assets</u>			
1. Actuarial Value	\$ 9,134,338	\$ 10,408,723	\$ 10,408,723
2. Market Value	\$ 9,134,338	\$ 10,408,723	\$ 10,408,723
C. <u>Liabilities</u>			
1. Actuarial present value of future expected benefit payments for active members			
a. Retirement benefits	\$ 6,947,145	\$ 5,531,770	\$ 5,583,498
b. Vesting benefits	298,292	233,851	234,545
c. Death benefits	65,989	53,507	42,764
d. Total	<u>\$ 7,311,426</u>	<u>\$ 5,819,128</u>	<u>\$ 5,860,807</u>
2. Actuarial present value of future expected benefit payments for terminated vested members	\$ 1,272,457	\$ 1,618,315	\$ 1,618,315
3. Actuarial present value of future expected benefit payments for members currently receiving benefits			
a. Service retired	\$ 2,515,094	\$ 3,703,119	\$ 3,703,119
b. Beneficiaries	83,325	76,179	76,179
c. Miscellaneous	0	1,172	1,172
d. Total	<u>\$ 2,598,419</u>	<u>\$ 3,780,470</u>	<u>\$ 3,780,470</u>

* As reported by prior Actuary

Actuarial Valuation as of October 1, 2017

State Required Exhibit

	<u>10/01/2016*</u>	Prior Assumptions <u>10/01/2017</u>	Current Assumptions <u>10/01/2017</u>
4. Total actuarial present value of future expected benefit payments	\$ 11,182,302	\$ 11,217,913	\$ 11,259,592
5. Actuarial accrued liability	\$ 9,800,109	\$ 9,889,448	\$ 9,904,536
6. Unfunded actuarial accrued liability	\$ 665,771	\$ (519,275)	\$ (504,187)
 D. <u>Statement of Accumulated Plan Benefits</u>			
1. Actuarial present value of accumulated vested benefits			
a. Participants currently receiving benefits	\$ 2,598,419	\$ 3,779,298	\$ 3,779,298
b. Other participants	5,929,560	5,065,218	5,074,779
c. Total	<u>\$ 8,527,979</u>	<u>\$ 8,844,516</u>	<u>\$ 8,854,077</u>
2. Actuarial present value of accumulated non-vested plan benefits	<u>227,067</u>	<u>76,165</u>	<u>76,369</u>
3. Total actuarial present value of accumulated plan benefits	\$ 8,755,046	\$ 8,920,681	\$ 8,930,446
 E. <u>Statement of Change in Accumulated Plan Benefits</u>			
1. Actuarial present value of accumulated plan benefits as of October 1, 2016			\$ 8,755,046
2. Increase (decrease) during year attributable to:			
a. Change in actuarial assumptions			\$ 9,765
b. Benefits paid			(316,027)
c. Other, including benefits accumulated and increase for interest due to decrease in the discount period			481,662
d. Net increase			<u>\$ 175,400</u>
3. Actuarial present value of accumulated plan benefits as of October 1, 2017			\$ 8,930,446

* As reported by prior Actuary

Actuarial Valuation as of October 1, 2017

State Required Exhibit

	<u>10/01/2016*</u>	<u>Prior Assumptions 10/01/2017</u>	<u>Current Assumptions 10/01/2017</u>
F. Pension Cost			
1. Employer normal cost (including expenses)	\$ 216,827	\$ 240,613	\$ 243,320
2. Payment required to amortize unfunded liability	92,763	(39,109)	(37,973)
3. Interest adjustment	10,836	8,028	8,192
4. Total preliminary required contribution	\$ 320,426	\$ 209,532	\$ 213,539
5. Total required contribution (Greater of F.1. and F.4.)	\$ 320,426	\$ 240,613	\$ 243,320
6. Item 5 as a percentage of payroll	17.4%	11.8%	11.9%
7. Estimated employee contributions	\$ 62,784	\$ 65,913	\$ 65,913
8. Item 7 as a percentage of payroll	3.3%	3.2%	3.2%
9. Net amount payable by Town	\$ 257,642	\$ 174,700	\$ 177,407
10. Item 9 as a percentage of payroll	14.1%	8.5%	8.7%
G. Past Contributions			
1. Required Employer contribution	\$ 257,642	\$ 174,700	\$ 177,407
2. Actual contributions made	\$ 311,423	N/A	N/A
H. Disclosure of Following Items:			
1. Actuarial present value of future salaries - attained age	\$ 12,673,333	\$ 10,692,084	\$ 10,782,986
2. Actuarial present value of future employee contributions - attained age	N/A	\$ 342,897	\$ 345,753
3. Actuarial present value of future contributions from other sources	N/A	N/A	N/A
4. Amount of active members' accumulated contributions	N/A	\$ 122,900	\$ 122,900
5. Actuarial present value of future salaries and future benefits at entry age	N/A	N/A	N/A
6. Actuarial present value of future employee contributions at entry age	N/A	N/A	N/A

* As reported by prior Actuary


State Required Exhibit

<u>Unfunded Actuarial Accrued Liabilities</u>	<u>Current Unfunded Liabilities</u>	<u>Current Assumptions Amortization Payment</u>	<u>Prior Assumptions Amortization Payment</u>	<u>Remaining Funding Period</u>
10/1/2017 Combined Bases*	\$ (519,275)	\$ (39,109)	\$ (39,109)	30 years
10/1/2017 Assumption Change	15,088	1,136	N/A	30 years
TOTAL	\$ (504,187)	\$ (37,973)	\$ (39,109)	

* Combined and amortized based on maximum 30 years due to combined credit base

This actuarial valuation and/or cost determination 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 Part VII, Chapter 112, Florida Statutes. 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 other wise provided for in the valuation. All known events or trends which may require material increase in plan costs or required contribution rates have been taken into account in the valuation.

Enrollment Number: 17-02802
Dated: March 6, 2018



Lawrence F. Wilson, A.S.A.