

March 14, 2019

William P. Hanes, Esq.
Administrator
Town of Palm Beach Retirement System
P.O. Box 2112
Palm Beach, FL 33480

Re: Town of Palm Beach Retirement System – Actuarial Impact Statement for Police Officers

Dear Bill:

As requested, we have reviewed the proposed Ordinance which amends Section 82-119, *Deferred retirement option program for police officers*, of the Town's Code of Ordinances with regard to the Town of Palm Beach Retirement System (Plan). We are enclosing an Actuarial Impact Statement showing the impact of the proposed change in Plan provisions on the September 30, 2018 actuarial valuation results for Police Officers.

Please refer to the enclosed exhibits for details. The following is a brief description of the proposed change included in this Actuarial Impact Statement:

- Current Plan – Same plan provisions as described in the September 30, 2018 Actuarial Valuation Report. The maximum participation period in the Deferred Retirement Option Program (DROP) for all Police Officers is 60 months (5 years).
- Plan Change – For any Police Officer who is appointed town manager while participating in the DROP, the maximum participation period in the DROP will be 120 months (10 years).

Summary of Findings

Pension benefits under this Plan are limited by IRC Section 415(b). The 415(b) limitation on annual benefits must be reduced to account for DROP distributions at DROP exit. Future pension benefits which are in excess of the adjusted annual 415(b) limit cannot be paid from this plan and instead will need to be paid from the Preservation of Benefits (Excess) Plan. As a result, the impact of the above Plan Change depends on how long the Town Manager remains in the DROP (and on how large his DROP account balance will be at retirement). The enclosed exhibits present results under four alternative scenarios which assume the Town Manager remains in the DROP for 7, 8, 9 or 10 years.

- As a result of the Plan change, the required employer contribution rate for Police Officers would decrease by up to 1.71% of covered payroll (from 88.27% to 86.56%), or a total dollar amount of \$62,007 for the fiscal year ending September 30, 2020 (assuming October 1st payment timing) if the Town Manager were to participate in the DROP for the maximum 10 year period, and his DROP balance earns an average investment return of 6.5% per year.
- As a result of the Plan change, the aggregate funded ratio (actuarial value of assets divided by actuarial accrued liability) for Police Officers would increase by up to 0.5%, from 71.1% to 71.6%, if the Town Manager were to participate in the DROP for the maximum 10 year period. Under this scenario, the unfunded liability would decrease by \$694,965.

The following table provides a summary of the results for each scenario:

Scenario	Current Plan Provisions (5 Year DROP Max)	Plan Change with Town Manager Participating in the DROP for:			
		7 Years	8 Years	9 Years	10 Years
Expected Present Value ¹ of Benefits for Police Officers to be paid by the Excess Plan	\$164,398	\$457,675	\$596,294	\$726,373	\$859,363
Increase/(Decrease) from Current Plan Provisions	N/A	\$293,277	\$431,896	\$561,975	\$694,965
Retirement System ADC (for Police Officers) for FY2020 if Contributed October 1st	\$3,200,781	\$3,174,673	\$3,161,980	\$3,150,377	\$3,138,774
Increase/(Decrease) from Current Plan Provisions	N/A	(26,108)	(38,801)	(50,404)	(62,007)

¹Based on a 7.20% discount rate.

Please note that as of September 30, 2018, there is currently one Police Officer who is an appointed Town Manager and is participating in the DROP. Under the current plan provisions, this member is projected to be in excess of the 415(b) limit when he exits the DROP. No other members are expected to be affected by this proposed Ordinance in the foreseeable future. However if other members become affected in future years, the impact of the plan changes would be greater than presented above.

We have projected the DROP account balance for the affected Police Officer assuming investment earnings in the DROP accrue at a rate of 6.5% per annum. The amount of the DROP distribution is converted to an equivalent annuity, and that amount is used to reduce the limit on future benefits paid from the Town of Palm Beach Retirement System. If actual average DROP account investment earnings are higher than 6.5%, the resulting adjusted annual 415(b) limit at DROP exit will be lower and more benefits will be payable from the Excess Plan. We have also projected IRC Section 415 limits into the future assuming annual inflation increases will be 2.0% per year and there will be no changes in the applicable prescribed mortality and segment interest rate assumptions after 2019. Actual published 415(b) limits and applicable segment interest rates and mortality tables will need to be taken into account at retirement.

The present values shown above are based on the interest rate of 7.20% and mortality assumptions used in the September 30, 2018 valuation. If a lower interest rate or higher life expectancy assumption was used, the present values shown above would be higher.

Additional risk assessment beyond the above discussion and the four scenarios enclosed was outside the scope of this assignment. Risk assessment may include additional scenario, sensitivity, or stress tests, stochastic modeling, and a comparison of the present value of benefits at low-risk discount rates. We are prepared to perform such assessment to aid the City in the decision making process. Please refer to the September 30, 2018 Actuarial Valuation Report dated February 26, 2019 for additional discussion regarding the risks associated with measuring the accrued liability and actuarially determined contribution.

Additional Disclosures

This report was prepared at the request of the Plan Administrator and is intended for use by the Town of Palm Beach and the Retirement System and those designated or approved by the Town or the System. This report may be provided to parties other than the System only in its entirety and only with the permission of the Town or Board of Trustees.

The purpose of this report is to describe the expected immediate financial effect of the proposed plan change. This report should not be relied on for any purpose other than the purpose described above.

This report complements the September 30, 2018 Actuarial Valuation Report previously delivered to the Plan Administrator and the Town and should be considered in conjunction with that report. The results in this report are based on census and asset data as of September 30, 2018, as provided by the Plan Administrator for the September 30, 2018 Actuarial Valuation concerning Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We reviewed this information for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator. Refer to the September 30, 2018 Actuarial Valuation report, dated February 26, 2019, for all actuarial assumptions, methods and disclosures.

The calculations were prepared based on our interpretation of the Retirement System Ordinance, and on what we believe are reasonable approaches to testing benefits under IRC Section 415(b) and the final regulations. We have also assumed that there are no System actuarial equivalence factors for converting the DROP account balance to an equivalent single life annuity because "actuarial equivalent" is not defined in the System Ordinance. However, we are neither tax attorneys nor tax professionals and the above information should not be construed as legal or income tax advice or opinion. There is no guarantee that the IRS would agree with the approaches used. If there is any doubt about these points, legal counsel should be consulted.

The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based on the assumptions, methods, and plan provisions outlined in this report. 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 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. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the author of the report prior to relying on information in the report.

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 Town of Palm Beach Retirement System as of the valuation

Mr. William P. Hanes, Esq.

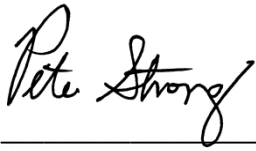
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date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Jeffrey Amrose 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 herein. The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



Peter N. Strong, FSA, MAAA, FCA
Enrolled Actuary No. 17-06975



Jeffrey Amrose, MAAA, FCA
Enrolled Actuary No. 17-06599

**TOWN OF PALM BEACH RETIREMENT SYSTEM
POLICE OFFICERS**

Impact Statement – March 14, 2019

Description of Amendments

The proposed Ordinance amends the Plan as follows:

- For any Police Officer who is appointed town manager while participating in the DROP, the maximum participation period in the DROP is 120 months (10 years).

Funding Implications of Amendment

An actuarial cost estimate is attached.

Certification of Administrator

I believe the amendment to be in compliance with Part VII, Chapter 112, Florida Statutes and Section 14, Article X of the Constitution of the State of Florida.

For the Board of Trustees
as Plan Administrator

SUPPLEMENTAL ACTUARIAL VALUATION REPORT

Plan

Town of Palm Beach Retirement System – Police Officers

Valuation Date

September 30, 2018

Date of Report

March 14, 2019

Report Requested by

Board of Trustees

Prepared by

Peter N. Strong

Group Valued

All active and inactive Police Officers

Change in Plan Provisions

Present Provision Before Change

The maximum participation period in the Deferred Retirement Option Program (DROP) for all Police Officers is 60 months (5 years).

Proposed Provision After Change

For any Police Officer who is appointed town manager while participating in the DROP, the maximum participation period in the DROP is 120 months (10 years).

Scenarios are presented as if the Town Manager were to remain in the DROP for an additional 2 years (a total of 7 years of DROP participation), 3 years, 4 years, and 5 years (for a maximum participation period of 10 years).

Changes in Actuarial Assumptions and Methods

With the exception of the changes as described above, all other actuarial assumptions and methods are the same as those used in the September 30, 2018 Actuarial Valuation Report.

Some of the key assumptions/methods are:

Investment Return – 7.20% per year

Payroll Growth Assumption – 2.75% per year

Internal Revenue Code (IRC) Section 415 Limitation – IRC Section 415 limits are projected into the future assuming annual inflation increases of 2.0% per year and no changes in the applicable prescribed mortality assumptions. For the purposes of valuing the liability for applicable Plan members whose benefits are currently limited under IRC

Section 415 and who are currently in the DROP, monthly benefit payments and investment earnings will continue to accumulate in the DROP until the assumed DROP exit date. Investment earnings in the DROP are projected to be 6.5% per year for this purpose. The projected DROP distribution is then converted to an equivalent annuity, and that amount is used to reduce the limit on future benefits paid from the System.

Amortization Period for New Changes in Actuarial Accrued Liability

15 years (for changes in plan provisions).

Actuarial Impact of Changes

See attached page(s).

Special Risks Involved with the Changes That the Plan Has Not Been Exposed to Previously

None

ACTUARIALLY DETERMINED CONTRIBUTION (ADC)					
A. 1. Valuation Date 2. Scenario	September 30, 2018 <i>Police Officers Valuation (Baseline)</i>	September 30, 2018 <i>Police Officers Plan Change: 7 years in DROP</i>	September 30, 2018 <i>Police Officers Plan Change: 8 years in DROP</i>	September 30, 2018 <i>Police Officers Plan Change: 9 years in DROP</i>	September 30, 2018 <i>Police Officers Plan Change: 10 years in DROP (maximum period)</i>
B. ADC to Be Paid During Fiscal Year Ending	9/30/2020	9/30/2020	9/30/2020	9/30/2020	9/30/2020
C. Covered Annual Payroll (expected)	\$ 3,752,645	\$ 3,752,645	\$ 3,752,645	\$ 3,752,645	\$ 3,752,645
D. Annual Payment to Amortize Unfunded Actuarial Liability Rate As Illustrative \$	79.16 % 2,970,594	78.44 % 2,943,575	78.09 % 2,930,440	77.77 % 2,918,432	77.45 % 2,906,424
E. Total Employer Normal Cost Rate As Illustrative \$	9.58 % 359,503	9.58 % 359,503	9.58 % 359,503	9.58 % 359,503	9.58 % 359,503
F. Total Unadjusted Contribution Rate Employer Normal Cost Amortization Total	9.58 % <u>79.16</u> 88.74	9.58 % <u>78.44</u> 88.02	9.58 % <u>78.09</u> 87.67	9.58 % <u>77.77</u> 87.35	9.58 % <u>77.45</u> 87.03
G. Adjustments to Computed Contribution					
a. Town funding for additional premium tax revenue shortfall in prior fiscal year	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
b. Additional Member Cost Sharing	(0.47)	(0.47)	(0.47)	(0.47)	(0.47)
c. Full funding credit	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
d. Total Adjustments As Illustrative \$	(0.47) (17,637)	(0.47) (17,637)	(0.47) (17,637)	(0.47) (17,637)	(0.47) (17,637)
H. Total Adjusted ADC as % of Covered Payroll	88.27 %	87.55 %	87.20 %	86.88 %	86.56 %
I. Total Adjusted ADC as Illustrative \$	\$ 3,312,460	\$ 3,285,441	\$ 3,272,306	\$ 3,260,298	\$ 3,248,290
J. Total Adjusted ADC if Contributed October 1st	\$ 3,200,781	\$ 3,174,673	\$ 3,161,980	\$ 3,150,377	\$ 3,138,774
K. Increase/(Decrease) from Valuation as % of Covered Payroll as Illustrative \$ if Contributed October 1st	N/A N/A N/A	(0.72) % \$ (27,019) \$ (26,108)	(1.07) % \$ (40,154) \$ (38,801)	(1.39) % \$ (52,162) \$ (50,404)	(1.71) % \$ (64,170) \$ (62,007)

ACTUARIAL VALUE OF BENEFITS AND ASSETS					
A. 1. Valuation Date	September 30, 2018	September 30, 2018	September 30, 2018	September 30, 2018	September 30, 2018
2. Scenario	<i>Police Officers Valuation (Baseline)</i>	<i>Police Officers Plan Change: 7 years in DROP</i>	<i>Police Officers Plan Change: 8 years in DROP</i>	<i>Police Officers Plan Change: 9 years in DROP</i>	<i>Police Officers Plan Change: 10 years in DROP (maximum period)</i>
B. Actuarial Present Value of All Projected Benefits for					
1. Active Members					
a. Service Retirement Benefits	\$ 14,293,345	\$ 14,293,345	\$ 14,293,345	\$ 14,293,345	\$ 14,293,345
b. Vesting Benefits	440,437	440,437	440,437	440,437	440,437
c. Disability Benefits	571,463	571,463	571,463	571,463	571,463
d. Preretirement Death Benefits	309,667	309,667	309,667	309,667	309,667
e. Return of Member Contributions	177,077	177,077	177,077	177,077	177,077
f. Total	15,791,989	15,791,989	15,791,989	15,791,989	15,791,989
2. Inactive Members					
a. Retired Members & Beneficiaries	85,169,729	84,876,452	84,737,833	84,607,754	84,474,764
b. Terminated Vested Members	2,871,039	2,871,039	2,871,039	2,871,039	2,871,039
c. DROP and Share Account Balances	2,713,934	2,713,934	2,713,934	2,713,934	2,713,934
d. Total	90,754,702	90,461,425	90,322,806	90,192,727	90,059,737
3. Total for All Members	106,546,691	106,253,414	106,114,795	105,984,716	105,851,726
C. Actuarial Present Value of Future Normal Costs	5,026,276	5,026,276	5,026,276	5,026,276	5,026,276
D. Actuarial Accrued (Past Service) Liability	101,520,415	101,227,138	101,088,519	100,958,440	100,825,450
E. Plan Assets					
1. Market Value	71,824,909	71,824,909	71,824,909	71,824,909	71,824,909
2. Actuarial Value	72,220,886	72,220,886	72,220,886	72,220,886	72,220,886
F. Unfunded Actuarial Accrued Liability: Change in UAAL from Baseline	29,299,529	29,006,252 (293,277)	28,867,633 (431,896)	28,737,554 (561,975)	28,604,564 (694,965)
G. Funded Ratio: E2/D	71.1 %	71.3 %	71.4 %	71.5 %	71.6 %
H. Actuarial Present Value of Projected Covered Payroll	32,552,020	32,552,020	32,552,020	32,552,020	32,552,020
I. Actuarial Present Value of Projected Member Contributions	3,255,202	3,255,202	3,255,202	3,255,202	3,255,202
J. Accumulated Value of Active Member Contributions	2,053,166	2,053,166	2,053,166	2,053,166	2,053,166

CALCULATION OF EMPLOYER NORMAL COST

A. Valuation Date	September 30, 2018 <i>Police Officers Valuation</i>		September 30, 2018 <i>Police Officers Plan Change</i>	
B. Normal Cost for				
1. Service Retirement Benefits	\$ 423,565	11.76%	\$ 423,565	11.76%
2. Vesting Benefits	33,403	0.93%	33,403	0.93%
3. Disability Benefits	48,287	1.35%	48,287	1.35%
4. Preretirement Death Benefits	26,438	0.74%	26,438	0.74%
5. Return of Member Contributions	44,728	1.24%	44,728	1.24%
6. Total for Future Benefits	576,421	16.02%	576,421	16.02%
7. Assumed Amount for Administrative Expenses	128,129	3.56%	128,129	3.56%
8. Total Normal Cost	704,550	19.58%	704,550	19.58%
C. Expected Member Contribution	359,914	10.00%	359,914	10.00%
D. Employer Normal Cost: B8-C	344,636	9.58%	344,636	9.58%
E. Employer Normal Cost as a % of Covered Payroll	9.58	%	9.58	%

PARTICIPANT DATA		
	September 30, 2018 <i>Police Officers Valuation</i>	September 30, 2018 <i>Police Officers Plan Change</i>
ACTIVE MEMBERS		
Number	50	50
Covered Annual Payroll	\$ 3,603,005	\$ 3,603,005
Average Annual Payroll	\$ 72,060	\$ 72,060
Average Age	38.5	38.5
Average Past Service	7.3	7.3
Average Age at Hire	31.2	31.2
RETIREES, BENEFICIARIES & DROP		
Number	98	98
Annual Benefits	\$ 5,841,903	\$ 5,841,903
Average Annual Benefit	\$ 59,611	\$ 59,611
Average Age	64.3	64.3
DISABILITY RETIREES		
Number	5	5
Annual Benefits	\$ 175,679	\$ 175,679
Average Annual Benefit	\$ 35,136	\$ 35,136
Average Age	55.4	55.4
TERMINATED VESTED MEMBERS		
Number	24	24
Annual Benefits	\$ 287,010	\$ 287,010
Average Annual Benefit	\$ 11,959	\$ 11,959
Average Age	45.6	45.6