



April 22, 2022

Mr. David Williams
Boynton Beach Firefighters' Retirement Plan
Precision Pension Administration
2100 North Florida Mango Road
West Palm Beach, Florida 33409

**Re: City of Boynton Beach Municipal Firefighters' Pension Trust Fund –
Supplemental Actuarial Valuation Report as of October 1, 2021**

Dear Dave:

Enclosed is a Supplemental Actuarial Valuation Report illustrating the impact of a reevaluation of the cost of the 2% COLA, which was first implemented by Ordinance 06-092. The results are based on census and asset data as of October 1, 2021.

Ordinance 06-692 (adopted in 2006), which added the 2% deferred COLA and increased member contributions by 5.0% of covered payroll, originally resulted in a total annual cost of 5.24% of covered payroll per year (5.0% of covered payroll to be covered by firefighters and 0.24% of covered payroll to be paid by the City). Under the terms of this Ordinance, the actuarial cost of the COLA must be reevaluated every three years to ensure that the City's cost has not increased beyond the initially determined cost to the City of 0.24% of covered payroll. The last reevaluation was completed as of October 1, 2018 (applicable to State money received during the fiscal year ending September 30, 2019) and as a result, the base amount of regular Chapter 175 State contributions was determined to be \$1,062,385, beginning with the fiscal year ending September 30, 2019.

Summary of Findings

- The annual actuarial cost of the COLA is \$5,913 higher than it was as of October 1, 2018. Therefore, the annual allocation of Chapter 175 State contributions towards the total required contribution has increased by this amount, from \$1,062,385 to \$1,068,298, beginning with the fiscal year ending September 30, 2022. If the amount received by the State in the fiscal year ending September 30, 2022 is less than this amount, the shortfall must be made up through the release of accumulated excess premium tax revenue reserves.

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 due to changing conditions; 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. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the Plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the either assumed or forecasted returns;
2. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the Plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return is less (or more) than the assumed rate, the cost of the Plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution amounts may be considered as a minimum contribution that complies with the pension Board's funding policy and the State statutes. The timely receipt of the actuarially determined contributions is critical to support the financial health of the Plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Risk Assessment

Risk assessment was outside the scope of this report. Risk assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability. We are prepared to perform such assessment to aid in the decision making process.

Disclosures and Qualifications

This report was prepared in compliance with Ordinance 06-092, which requires an actuarial reevaluation of the cost of the COLA every three years. The last time this reevaluation was completed was as of October 1, 2018. A copy of this report should be provided to the City. This report may be provided to parties other than the City only in its entirety and only with the Board's permission. GRS is not responsible for unauthorized use of this report.



The purpose of this report is to describe the financial effect of the changes summarized above. This report should not be relied on for any purpose other than the purpose described above. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The results in this report are based on census and asset data as of October 1, 2021, as provided by the Plan Administrator for the October 1, 2021 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 audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator. Refer to that Actuarial Valuation Report dated April 22, 2022 for all actuarial assumptions, methods and disclosures.

The calculations are based upon assumptions regarding future events, which may or may not materialize. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly 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 was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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 City of Boynton Beach Municipal Firefighters' Pension Trust Fund as of the valuation 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. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

We welcome your questions and comments.

Sincerely yours,

GABRIEL, ROEDER, SMITH & COMPANY


Peter N. Strong FSA, MAAA
Senior Consultant & Actuary


Jeffrey Amrose, MAAA
Senior Consultant & Actuary

Enclosures



SUPPLEMENTAL ACTUARIAL VALUATION REPORT

Plan

City of Boynton Beach Municipal Firefighters' Pension Trust Fund

Valuation Date

October 1, 2021

Date of Report

April 22, 2022

Report Requested by

Automatic actuarial reevaluation of the cost of the COLA under Ordinance 06-092, which must be completed every three years.

Prepared by

Peter N. Strong

Group Valued

All active and inactive Firefighters

Plan Assumptions and Methods Being Considered for Change

None

Plan Provisions Being Considered:

- Reevaluation of the actuarial cost of the 2% annual COLA deferred 5 years for members who retire or enter the DROP after October 1, 2006.
- Reevaluation of the increase in member contributions from 7% to 12%.

Participants Affected

All active participants as well as inactive participants who are currently receiving the COLA.

Actuarial Assumptions and Methods

Same as October 1, 2021 Actuarial Valuation Report.

Some of the key assumptions/methods are:

Investment Return – 7.15%

Salary Increase – 3.25% to 15.0% per year depending on service

Cost Method – Entry Age Normal

Amortization Period for Any Change in Actuarial Accrued Liability

25 years

Summary of Data Used in Report

See attached page

Actuarial Impact of Proposal(s)

See attached page(s)

Other Cost Considerations

None

PARTICIPANT DATA		
	October 1, 2021 <i>Valuation</i>	October 1, 2021 <i>Reevaluation of Cost of COLA (If No COLA)</i>
ACTIVE MEMBERS		
Number	111	111
Covered Annual Payroll	\$ 11,710,333	\$ 11,710,333
Average Annual Payroll	\$ 105,498	\$ 105,498
Average Age	38.9	38.9
Average Past Service	11.2	11.2
Average Age at Hire	27.7	27.7
RETIREES, BENEFICIARIES & DROP		
Number	129	129
Annual Benefits	\$ 8,080,500	\$ 7,794,617
Average Annual Benefit	\$ 62,640	\$ 60,423
Average Age	62.5	62.5
DISABILITY RETIREES		
Number	4	4
Annual Benefits	\$ 193,448	\$ 184,882
Average Annual Benefit	\$ 48,362	\$ 46,221
Average Age	49.3	49.3
TERMINATED VESTED MEMBERS		
Number	2	2
Annual Benefits	\$ 77,127	\$ 77,127
Average Annual Benefit	\$ 38,564	\$ 38,564
Average Age	41.6	41.6

**ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC) -
AFTER PLAN AND METHOD CHANGES**

A. Valuation Date	October 1, 2021 <i>Valuation 12.0 % Member Contributions with COLA</i>	October 1, 2021 <i>Valuation 7.0% Member Contributions Without COLA</i>	October 1, 2021 <i>Valuation with Increase in Amount of State Chapter 175 Funds Used</i>
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2023	9/30/2023	9/30/2023
C. Assumed Date of Employer Contrib.	10/1/2021	10/1/2021	10/1/2021
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 3,686,801	\$ 3,225,404	\$ 3,686,801
E. Employer Normal Cost	2,920,288	2,877,124	2,920,288
F. ADEC if Paid on the Valuation Date: D+E	6,607,089	6,102,528	6,607,089
G. ADEC Adjusted for Frequency of Payments	6,607,089	6,102,528	6,607,089
H. ADEC as % of Covered Payroll	56.42 %	52.11 %	56.42 %
I. Covered Payroll per Valuation	11,710,333	11,710,333	11,710,333
J. Assumed Rate of Increase in Covered Payroll to Contribution Year	2.50 %	2.50 %	2.50 %
K. Covered Payroll for Contribution Year	12,003,091	12,003,091	12,003,091
L. ADEC for Contribution Year: H x K	6,772,144	6,254,811	6,772,144
M. Estimate of State Revenue Allocated in Contribution Year (including amounts from Accumulated Excess Reserve)	1,062,385	579,772	1,068,298
N. City's Contribution Toward Cost of COLA: (= 0.24% x K)	28,807	0	28,807
O. Required Employer Contribution (net of COLA) in Contribution Year: L - M - N	5,680,952	5,675,039	5,675,039
P. Total Required Employer Contribution in Contribution Year: N + O	5,709,759	5,675,039	5,703,846
Q. Increase in Use of Chapter 175 Funds	N/A	N/A	5,913
R. Estimated Amount of Accumulated Excess Premium Tax Revenue to offset ADEC (If Actual State Revenue = \$995,143)	N/A	N/A	73,155

**ACTUARIAL VALUE OF BENEFITS AND ASSETS -
AFTER PLAN CHANGES**

A. Valuation Date	October 1, 2021 <i>Valuation 12.0 % Member Contributions with COLA</i>	October 1, 2021 <i>Valuation 7.0% Member Contributions Without COLA</i>
B. Actuarial Present Value of All Projected Benefits for		
1. Active Members		
a. Service Retirement Benefits	\$ 83,032,516	\$ 70,868,194
b. Vesting Benefits	3,748,287	3,191,284
c. Disability Benefits	2,075,764	1,819,633
d. Preretirement Death Benefits	670,667	557,382
e. Return of Member Contributions	<u>195,851</u>	<u>114,250</u>
f. Total	89,723,085	76,550,743
2. Inactive Members		
a. Service Retirees & Beneficiaries	104,348,122	87,614,620
b. Disability Retirees	2,968,202	2,316,731
c. Terminated Vested Members	<u>830,675</u>	<u>708,379</u>
d. Total	108,146,999	90,639,730
3. Total for All Members	197,870,084	167,190,473
C. Actuarial Accrued (Past Service) Liability per GASB No. 25	166,996,539	141,013,372
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	N/A	N/A
E. Plan Assets		
1. Market Value	140,845,497	121,987,540
2. Actuarial Value	124,219,104	105,361,147
F. Unfunded Actuarial Accrued Liability:	42,777,435	35,652,225
G. Actuarial Present Value of Projected Covered Payroll	92,064,552	92,064,552
H. Actuarial Present Value of Projected Member Contributions	11,047,747	6,444,519
I. Funded Ratio: E2/C	74.4 %	74.7 %

**CALCULATION OF EMPLOYER NORMAL COST -
AFTER PLAN CHANGES**

A. Valuation Date	October 1, 2021 <i>Valuation</i> 12.0 % Member <i>Contributions</i> <i>with COLA</i>	October 1, 2021 <i>Valuation</i> 7.0% Member <i>Contributions</i> <i>Without COLA</i>
B. Normal Cost for		
1. Service Retirement Benefits	\$ 3,572,328	\$ 3,038,161
2. Vesting Benefits	262,005	222,448
3. Disability Benefits	187,350	162,516
4. Preretirement Death Benefits	40,806	33,741
5. Return of Member Contributions	<u>55,343</u>	<u>32,285</u>
6. Total for Future Benefits	4,117,832	3,489,151
7. Assumed Amount for Administrative Expenses	<u>207,696</u>	<u>207,696</u>
8. Total Normal Cost	4,325,528	3,696,847
As % of Covered Payroll	36.94 %	31.57 %
C. Expected Member Contribution	1,405,240	819,723
As % of Covered Payroll	12.00 %	7.00 %
D. Net Employer Normal Cost: B8-C	2,920,288	2,877,124
As % of Covered Payroll	24.94 %	24.57 %