

May 6, 2022

Ms. Mara Frederiksen Director of Financial Services City of Boynton Beach P.O. Box 310 Boynton Beach, Florida 33425

Re: City of Boynton Beach Municipal Police Officers' Retirement Fund Plan Closure/Freeze Study with 30-Year Projections

Dear Mara:

Gabriel, Roeder, Smith & Company (GRS) was engaged by the City of Boynton Beach to prepare projections of the costs for the City of Boynton Beach Municipal Police Officers' Retirement Fund (Plan). This letter presents 30-year projections of the cost of the current pension plan with no changes versus a plan closure, plan freeze or plan termination scenario resulting from a merger with the Palm Beach County Sheriff's Office.

If the City merges its police services with the County, all police officers will become employees of the Palm Beach County Sheriff's Office. There would be three main options as to how to handle the City pension plan. The Plan could continue to exist for current members as a closed plan, with no future new entrants into the Plan, but with all current members being given a choice between continuing to earn benefits in the City Plan or transferring to the Florida Retirement System (FRS) for future service. The Plan could be frozen for all members, in which all benefit accruals in the Plan are frozen and all current active members are essentially treated as vested terminated members (with vested deferred benefits) in the Plan and transfer to FRS for future service. A third option is terminating the Plan, in which all benefits are frozen and all liabilities are transferred to an insurance company to be paid when due through a group annuity contract.

This letter also includes a discussion of the risks associated with measuring the accrued liability and actuarially determined contribution. The results are based on census and asset data as of October 1, 2021.

The enclosed exhibits present the following:

1. <u>Baseline Projection:</u> 30-year projections of the actuarial liability and required annual contributions for the current pension plan using the current assumptions and methods as described in the October 1, 2021 Actuarial Valuation Report dated April 29, 2022, with the exception that the actual return on the market value of assets is 0.0% during the fiscal year ending September 30, 2022, and then 6.9% per year thereafter. The 0.0% assumption for fiscal year 2022 is based on fiscal year-to-date investment results (which are negative for most pension plans with an October 1st – September 30th fiscal year).

2. <u>Scenario #1:</u> Same as the Baseline Projection EXCEPT:

Plan Closure – Effective October 1, 2022, the Plan is closed to new entrants with all future hires being enrolled in FRS (as employees of the County), and all current members being given a choice between remaining in the current Plan or transferring to FRS for future service. An assumption was made that 10% of current non-vested members would elect to transfer to FRS. Chapter 185 State Revenue would still be expected to be available to the Plan until the Market Value of Assets exceeds the Plan's present value of future benefits.

All employees would be considered employees of the Palm Beach County Sheriff's Office in the event of a merger with the County, so the City's annual payments to the County for policing services would include contributions to FRS for retirement benefits. The Palm Beach County Sherriff's Office (PBCSO) would then reimburse the City of Boynton Beach at the FRS contribution rate multiplied by payroll for members who elect to remain in the City Plan. This reimbursement to the City has been projected by projecting the future FRS contribution rates assuming the actual return on the market value of FRS' assets is 0.0% during the fiscal year ending June 30, 2022, and then 6.8% per year thereafter (to match the projected returns of FRS, based on the current investment return assumption of FRS).

It should be noted that when a pension plan is closed, the unfunded liabilities can no longer be amortized as a level percentage of payroll. This scenario reflects a change to amortize the unfunded liabilities as a level dollar amount rather than as a level percentage of pay, which causes the City contributions to increase initially in this scenario.

It should also be noted that the investment return assumption will likely need to be lowered in the future under this scenario as the Plan becomes more mature and the expected remaining life of the Plan becomes shorter (and especially once there are no active members remaining in the Plan). The projections in this letter do not reflect further reductions in the investment return assumption from the current level of 6.9%, so if the investment return assumption is lowered in future years, the projected costs will be higher than the projected costs shown for this scenario.

3. <u>Scenario #2:</u> Same as the Baseline Projection EXCEPT:

Plan Freeze – Effective October 1, 2022, the Plan is closed to new entrants and all benefit accruals in the Plan are frozen. All current active members are essentially treated as vested terminated members (with vested deferred benefits), with no further benefit increases being earned. The City will need to continue funding this frozen Plan with annual required contributions, and the Plan will continue to operate and pay benefits when due, so there will continue to be a need for a Pension Board with annual actuarial valuations, audits, etc. Since no more benefits would be earned and no more contributions would be made by current members, Chapter 185 State Revenue would no longer be available to the City (and it would be estimated to stop after the fiscal year ending September 30, 2023).



As in Scenario #1, the investment return assumption will likely need to be lowered in the future under this scenario as the Plan becomes more mature and the expected remaining life of the Plan becomes shorter. The projections in this letter do not reflect further reductions in the investment return assumption from the current level of 6.9%, so if the investment return assumption is lowered in future years, the projected costs will be higher than the projected costs shown for this scenario.

4. Scenario #3: Same as Scenario #2 EXCEPT:

Full Plan Termination – Effective October 1, 2022, the Plan is fully terminated. The liabilities and responsibilities for paying all benefits to current and future retirees would need to be transferred to an insurance company through a group annuity contract. All members would become 100% vested in their accrued benefits. The City would no longer receive Chapter 185 State Revenue, and the pension plan would cease to exist.

The insurance company accepting the liability would use a low (fixed income-based) interest rate to value this liability and may also use a more conservative mortality table than the one currently being used for actuarial valuation purposes. Using a 3.0% interest rate (which is likely a little lower than the actual current rates in use by insurance companies – this is to reflect conservatism in other assumptions like the mortality table, and additional charges for insurance company expenses), the estimated total cost of the group annuity contract is approximately \$250 million. The net market value of Plan assets (net of the DROP/reserve accounts) is projected to be approximately \$110 to \$115 million as of October 1, 2022, so the total amount the City would need to come up with to terminate/transfer all liabilities to an insurance company would be an additional \$135 to \$140 million. Because this would be a one-time payment, no projections are shown for this scenario.

Except as indicated above, all remaining methods, assumptions, and benefits are the same as indicated in our October 1, 2021 Actuarial Valuation Report.

Summary of Results and Commentary Regarding Projections

<u>Baseline Scenario versus Scenario #1</u>: The projections indicate that the City would pay approximately \$55.2 million less (a present value of approximately \$16.5 million less) in pension contributions over the next 30 years under Scenario #1 (closing the Plan with new members and 10% of non-vested members entering FRS) versus the Baseline Scenario. The City would also receive reimbursement from the County for contributions the County would have paid to FRS for members who elected to remain in the City's Plan after the merger. The sum of these reimbursements from the County to the City under this scenario over the next 30 years is approximately \$35.7 million (a present value of approximately \$24.5 million). The combined total of these two amounts, which is approximately \$90.9 million (a present value of approximately \$41.0 million), reflects the total net retirement plan-related cost savings under Scenario #1 versus the Baseline Scenario.



<u>Baseline Scenario versus Scenario #2</u>: The projections indicate that the City would pay approximately **\$91.4 million** less (a present value of approximately **\$40.1 million** less) in pension contributions under Scenario #2 (freezing the Plan with no further benefit accruals) versus the Baseline Scenario.

For both Scenario #1 and Scenario #2, it is important to keep in mind that these savings would be offset by a portion of the fees the City pays to the County for policing services, which are intended to include the costs of police officers participating/earning retirement benefits in FRS.

Based on Chapter 185.38(2), Florida Statutes (cited below) and conversations with the State, it is our understanding that when a pension plan closes and transitions to FRS (for all new entrants, with all current members being given a choice between the current pension plan or FRS), the pension plan may continue to receive Chapter 185 State money until it is fully funded (defined as having the market value of assets exceed the present value of all accrued and projected future benefits in the Plan). Under the current projections in Scenario #1, this is expected to first occur as of October 1, 2040, which we believe would cause the Chapter 185 State money to cease beginning in the fiscal year ending September 30, 2042.

Chapter 185.38, Florida Statutes:

"Transfer to another state retirement system; benefits payable.—For any municipality, chapter plan, local law municipality, or local law plan under this chapter:

(2) When every active participant in any pension plan created pursuant to this chapter elects to transfer to another state retirement system, the pension plan created pursuant to this chapter shall be terminated and the assets distributed in accordance with s. 185.37. If some participants in a pension plan created pursuant to this chapter elect to transfer to another state retirement system and other participants elect to remain in the existing plan created pursuant to this chapter, the plan created pursuant to this chapter shall continue to receive state premium tax moneys until fully funded. If the plan is fully funded at a particular valuation date and not fully funded at a later valuation date, the plan shall resume receipt of state premium tax moneys until the plan is once again determined to be fully funded. "Fully funded" means that the present value of all benefits, accrued and projected, is less than the available assets and the present value of future member contributions and future plan sponsor contributions on an actuarial entry age cost funding basis. Effective May 31, 1998, for plans discussed herein, the plan shall remain in effect until the final benefit payment has been made to the last participant or beneficiary and shall then be terminated in accordance with s. 185.37."

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 results 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;
- 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



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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 at the request of the City of Boynton Beach, with authorization of the Board of Trustees for the City of Boynton Beach Municipal Police Officers' Retirement Fund, and is intended for use by the City and Board, and those designated or approved by the City or the Board. This report may be provided to parties other than the City and Board only in its entirety and only with the permission of the City or Board. GRS is not responsible for the unauthorized use of this report.

The purpose of this report is to describe the financial effect of potential changes to Plan benefits. This report should not be relied on for any purpose other than the purpose described.

The calculations in this report are based upon information furnished by the Plan Administrator for the October 1, 2021 Actuarial Valuation Report 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 City or the Plan Administrator.

Projections are deterministic, meaning that throughout the projection period, Plan experience is expected to match the actuarial assumptions, including the assumed investment return on the market value of assets (which is assumed to be 0.0% during the fiscal year ending September 30, 2022, and then 6.9% per year thereafter).

Throughout the projections, new members are assumed to be hired each year at a rate sufficient to maintain a constant active headcount. New members are assumed to have the same average demographic characteristics (age, gender, salary – adjusted each year by the Plan's assumed rate of inflation, which is 2.5% per year) at their dates of employment as those of current members hired between October 1, 2016 and October 1, 2021 (during the five-year period ending on the most recent actuarial valuation / census data collection date).

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. 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 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 Plan 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 Trisha Amrose are members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The undersigned actuaries are independent of the plan sponsor.

We welcome your questions and comments.

Sincerely yours,

Peter N. Strong, FSA, EA, MAAA Senior Consultant and Actuary

Trisha Amrose, EA, MAAA Consultant and Actuary

This communication shall not be construed to provide tax advice, legal advice or investment advice.



City of Boynton Beach Municipal Police Officers' Retirement Fund 30-Year Projection of Required City Contributions

Scenario 1 - Plan Changes 1,2 Current Plan (Baseline) 1 Increase/(Decrease) Covered Funded Covered Funded Required City **Required City** in Required City Payroll for Fiscal **UAAL on** Ratio on Payroll for **UAAL** on Ratio on Contribution Contribution Contribution Year Valuation Contribution Valuation Valuation Contribution Valuation Valuation \$ Amount % of Pay \$ Amount \$ Amount % of Pay % of Pay **Ending** Date Year Date Date Year Date Date 2023 10/1/2021 13,046,792 7,136,079 54.70% 52,222,605 67% 12,903,214 7,136,079 55.30% 52,222,605 67% 0 0.61% 2024 10/1/2022 13,188,112 7,296,580 55.33% 51,166,820 69% 12,107,454 7,791,680 64.35% 51,091,316 69% 495,100 9.03% 2025 10/1/2023 13,565,937 7,364,431 54.29% 49,457,898 71% 11,843,641 7,702,601 65.04% 49,562,504 71% 338,170 10.75% 2026 10/1/2024 13,626,974 7,466,374 54.79% 47,001,586 73% 10,836,785 7,582,667 69.97% 46,414,356 73% 116,293 15.18% 13,785,437 2027 10/1/2025 43,691,319 76% 42,445,845 7,418,254 53.81% 9,970,821 7,233,365 72.55% 76% (184,889)18.73% 2028 10/1/2026 13,832,067 7,557,968 54.64% 42,488,527 77% 8,814,168 7,099,775 80.55% 40.617.973 78% (458,193)25.91% 2029 10/1/2027 14,200,474 7,565,258 53.27% 39,760,876 79% 8,391,028 6,795,143 80.98% 37,399,104 80% (770,115)27.71% 2030 10/1/2028 14,346,365 7,479,297 52.13% 36,602,531 81% 7,476,545 6,465,063 86.47% 33,833,911 82% (1,014,234)34.34% 10/1/2029 2031 14,453,665 7,250,639 50.16% 33,258,187 83% 6,515,385 5,978,199 91.76% 30,282,130 84% (1,272,440)41.59% 2032 10/1/2030 14,786,008 7,197,234 48.68% 29,721,661 85% 5,945,736 94.92% 26,629,670 86% 5,643,738 (1,553,496)46.24% 10/1/2031 2033 15,228,289 7,226,410 47.45% 26,118,725 87% 5,606,317 5,414,651 96.58% 23,026,633 88% (1,811,759)49.13% 2034 10/1/2032 15,580,492 7,305,071 46.89% 22,326,169 89% 5,080,382 5,262,326 103.58% 19,408,702 90% (2,042,745)56.70% 2035 10/1/2033 16,066,201 7,358,618 45.80% 18,280,614 91% 4,875,946 5,082,690 104.24% 15,716,381 92% (2,275,928)58.44% 10/1/2034 16,449,817 11,821,943 94% 2036 7,263,278 44.15% 13,890,832 93% 4,414,085 4,819,951 109.19% (2,443,327)65.04% 2037 10/1/2035 16,772,523 5,205,288 31.03% 9,202,791 96% 3,709,658 2,942,145 79.31% 7,815,991 96% (2,263,143)48.28% 2038 10/1/2036 17,051,290 23.79% 4,325,138 98% 1,813,014 62.23% 3,720,912 98% 38.44% 4,056,366 2,913,410 (2,243,352)2039 10/1/2037 17,399,946 3,210,446 18.45% 1,327,420 99% 2,242,184 962,193 42.91% 1,215,589 99% (2,248,253)24.46% 2040 10/1/2038 17,861,889 2,500,864 14.00% (630,350)100% 170,796 100% 1,681,657 10.16% (392,614)(2,330,068)(3.84)%2041 10/1/2039 18,416,131 2,568,621 13.95% (1,783,017)101% 1,344,557 83,638 6.22% (1,312,310)101% (2,484,983)(7.73)%2042 10/1/2040 19,049,840 2,653,316 13.93% (2,191,042)101% 1,155,997 496,679 42.97% (1,532,041)101% 29.04% (2,156,637)2043 10/1/2041 19,746,430 2,752,812 13.94% (2,332,384)101% 1,050,583 469,450 44.68% (1,693,355)101% (2,283,362)30.74% 2044 10/1/2042 20.498.599 2,864,408 13.97% (2,470,666)101% 995.437 457.844 45.99% (2.336.479)101% (2,406,564)32.02% 2045 10/1/2043 21,257,425 2,987,031 14.05% (2,608,635)101% 903,331 455,412 50.41% (3,007,286)102% (2,531,619)36.36% 2046 10/1/2044 22,026,317 3,112,644 14.13% (2,747,384)101% 769,001 449,407 58.44% (3,714,528)102% (2,663,237)44.31% 2047 10/1/2045 22,773,678 3,239,795 14.23% (2,895,938)101% 659,251 436,793 66.26% (4,474,463)103% (2,803,002)52.03% 2048 10/1/2046 23,396,234 3,365,503 14.38% (3,055,867) 101% 278,071 427,458 153.72% (5,293,865)104% (2,938,045)139.34% 10/1/2047 2049 23,897,067 3,470,218 14.52% (3,232,605)101% 0 376.202 N/A (6,166,326)104% (3,094,016)N/A 10/1/2048 2050 24,434,779 3,554,459 14.55% (3,446,988)101% 0 343,441 N/A (7,143,773)105% N/A (3,211,018)2051 10/1/2049 352,027 24,959,661 3,647,408 14.61% (3,699,100)101% 0 N/A (8,168,893)106% (3,295,381)N/A 2052 10/1/2050 25,444,274 3,735,749 14.68% (3,962,523) 101% 360,828 N/A (9,220,546)107% (3,374,921)N/A Total: 155,810,419 100,605,255 (55,205,164) **Total Present Value:** 82,482,549 66,024,889 (16,457,660)

¹ Assumptions

Mortality Assumption: FRS Mortality for Special Risk Class

Payroll Growth Assumption: 2.5%

Investment Return Assumption and Actual Return on Plan Assets:

Administrative Expenses and Total Annual Chapter 185 State Money:

O.0% during the fiscal year ending September 30, 2022, and then 6.9% thereafter Projected to increase 2.5% annually

No future actuarial experience gains or losses are assumed.

² Description of Proposed Plan Changes

Plan Closure: Close the Plan to all new Entrants beginning October 1, 2022, and current members are given a choice to remain in the current Plan or move to FRS.

Scenario 1: Projected BSO Reimbursement to City

Fiscal	City Plan Covered	Projected BSO	Percentage of City		
Year	Payroll for	Reimbursement to	Plan Covered		
Ending	Contribution Year	City	Payroll		
2023	\$ 12,903,214	\$ 3,579,352	27.74%		
2024	12,107,454	3,535,873	29.20%		
2025	11,843,641	3,357,217	28.35%		
2026	10,836,785	2,994,877	27.64%		
2027	9,970,821	2,696,980	27.05%		
2028	8,814,168	2,341,270	26.56%		
2029	8,391,028	2,195,117	26.16%		
2030	7,476,545	1,930,996	25.83%		
2031	6,515,385	1,664,805	25.55%		
2032	5,945,736	1,518,053	25.53%		
2033	5,606,317	1,381,281	24.64%		
2034	5,080,382	1,413,951	27.83%		
2035	4,875,946	1,350,755	27.70%		
2036	4,414,085	1,218,090	27.60%		
2037	3,709,658	1,064,706	28.70%		
2038	2,913,410	834,043	28.63%		
2039	2,242,184	640,528	28.57%		
2040	1,681,657	479,559	28.52%		
2041	1,344,557	382,870	28.48%		
2042	1,155,997	227,960	19.72%		
2043	1,050,583	206,075	19.62%		
2044	995,437	179,577	18.04%		
2045	903,331	162,961	18.04%		
2046	769,001	138,728	18.04%		
2047	659,251	118,929	18.04%		
2048	278,071	50,164	18.04%		
2049	-	-	0.00%		
2050	-	-	0.00%		
2051	-	-	0.00%		
2052	-	-	0.00%		

Total: 35,664,715 Total Present Value: 24,492,762

City of Boynton Beach Municipal Police Officers' Retirement Fund 30-Year Projection of Required City Contributions

Current Plan (Baseline) 1

Scenario 2 - Plan Changes 1,2

		current rian (basenne)				Scenario 2 - Flan Changes							
Fiscal Year Valuation		Covered Payroll for Contribution	Required City Contribution		UAAL on Valuation	Funded Ratio on Valuation	Covered Payroll for Contribution	Required City Contribution		UAAL on Valuation	Funded Ratio on Valuation	Increase/(Decrease) in Required City Contribution	
Ending	Date	Year	\$ Amount	% of Pay	Date	Date	Year	\$ Amount	% of Pay	Date	Date	\$ Amount	% of Pay
2023	10/1/2021	13,046,792	7,136,079	54.70%	52,222,605	67%	13,046,792	7,136,079	54.70%	52,222,605	67%	0	0.00%
2024	10/1/2022	13,188,112	7,296,580	55.33%	51,166,820	69%	12,244,517	4,529,846	36.99%	38,789,720	74%	(2,766,734)	(18.33)%
2025	10/1/2023	13,565,937	7,364,431	54.29%	49,457,898	71%	11,978,966	4,150,891	34.65%	33,580,149	78%	(3,213,540)	(19.63)%
2026	10/1/2024	13,626,974	7,466,374	54.79%	47,001,586	73%	10,971,303	4,071,651	37.11%	30,875,407	80%	(3,394,723)	(17.68)%
2027	10/1/2025	13,785,437	7,418,254	53.81%	43,691,319	76%	10,105,727	3,973,806	39.32%	27,739,040	82%	(3,444,448)	(14.49)%
2028	10/1/2026	13,832,067	7,557,968	54.64%	42,488,527	77%	8,949,863	4,093,830	45.74%	26,991,765	82%	(3,464,138)	(8.90)%
2029	10/1/2027	14,200,474	7,565,258	53.27%	39,760,876	79%	8,527,550	4,121,412	48.33%	24,848,813	83%	(3,443,846)	(4.94)%
2030	10/1/2028	14,346,365	7,479,297	52.13%	36,602,531	81%	7,613,864	3,968,722	52.12%	22,434,989	85%	(3,510,575)	(0.01)%
2031	10/1/2029	14,453,665	7,250,639	50.16%	33,258,187	83%	6,653,837	3,746,782	56.31%	19,830,792	87%	(3,503,857)	6.15%
2032	10/1/2030	14,786,008	7,197,234	48.68%	29,721,661	85%	6,084,994	3,684,895	60.56%	17,210,331	88%	(3,512,339)	11.88%
2033	10/1/2031	15,228,289	7,226,410	47.45%	26,118,725	87%	5,745,887	3,669,860	63.87%	14,631,698	90%	(3,556,550)	16.42%
2034	10/1/2032	15,580,492	7,305,071	46.89%	22,326,169	89%	5,218,788	3,671,622	70.35%	11,945,839	91%	(3,633,449)	23.47%
2035	10/1/2033	16,066,201	7,358,618	45.80%	18,280,614	91%	5,015,553	3,677,680	73.33%	9,095,699	93%	(3,680,938)	27.52%
2036	10/1/2034	16,449,817	7,263,278	44.15%	13,890,832	93%	4,556,018	3,564,554	78.24%	6,052,447	95%	(3,698,724)	34.08%
2037	10/1/2035	16,772,523	5,205,288	31.03%	9,202,791	96%	3,853,898	1,790,059	46.45%	2,798,669	98%	(3,415,229)	15.41%
2038	10/1/2036	17,051,290	4,056,366	23.79%	4,325,138	98%	3,015,586	255,513	8.47%	(552,293)	100%	(3,800,853)	(15.32)%
2039	10/1/2037	17,399,946	3,210,446	18.45%	1,327,420	99%	2,343,958	261,753	11.17%	(2,230,936)	102%	(2,948,693)	(7.28)%
2040	10/1/2038	17,861,889	2,500,864	14.00%	(630,350)	100%	1,783,118	268,383	15.05%	(2,378,181)	102%	(2,232,481)	1.05%
2041	10/1/2039	18,416,131	2,568,621	13.95%	(1,783,017)	101%	1,445,793	274,957	19.02%	(2,535,273)	102%	(2,293,664)	5.07%
2042	10/1/2040	19,049,840	2,653,316	13.93%	(2,191,042)	101%	1,254,860	281,930	22.47%	(2,703,127)	102%	(2,371,386)	8.54%
2043	10/1/2041	19,746,430	2,752,812	13.94%	(2,332,384)	101%	1,125,999	288,869	25.65%	(2,882,243)	103%	(2,463,943)	11.71%
2044	10/1/2042	20,498,599	2,864,408	13.97%	(2,470,666)	101%	1,070,070	296,138	27.67%	(3,073,639)	103%	(2,568,270)	13.70%
2045	10/1/2043	21,257,425	2,987,031	14.05%	(2,608,635)	101%	976,463	303,579	31.09%	(3,277,939)	103%	(2,683,452)	17.04%
2046	10/1/2044	22,026,317	3,112,644	14.13%	(2,747,384)	101%	840,638	311,101	37.01%	(3,496,192)	104%	(2,801,543)	22.88%
2047	10/1/2045	22,773,678	3,239,795	14.23%	(2,895,938)	101%	674,923	318,938	47.26%	(3,729,346)	104%	(2,920,857)	33.03%
2048	10/1/2046	23,396,234	3,365,503	14.38%	(3,055,867)	101%	285,480	326,865	114.50%	(3,978,313)	104%	(3,038,638)	100.11%
2049	10/1/2047	23,897,067	3,470,218	14.52%	(3,232,605)	101%	0	335,068	N/A	(4,244,314)	105%	(3,135,150)	N/A
2050	10/1/2048	24,434,779	3,554,459	14.55%	(3,446,988)	101%	0	343,441	N/A	(4,528,407)	105%	(3,211,018)	N/A
2051	10/1/2049	24,959,661	3,647,408	14.61%	(3,699,100)	101%	0	352,027	N/A	(4,831,916)	106%	(3,295,381)	N/A
2052	10/1/2050	25,444,274	3,735,749	14.68%	(3,962,523)	101%	0	360,828	N/A	(5,156,139)	107%	(3,374,921)	N/A
Total: Total Prese	ent Value:		155,810,419 82,482,549					64,431,079 42,346,158				(91,379,340) (40,136,391)	

¹Assumptions

Mortality Assumption: FRS Mortality for Special Risk Class

Payroll Growth Assumption: 2.5%

Investment Return Assumption and Actual Return on Plan Assets: Administrative Expenses and Total Annual Chapter 185 State Money: No future actuarial experience gains or losses are assumed. 0.0% during the fiscal year ending September 30, 2022, and then 6.9% thereafter Projected to increase 2.5% annually

² <u>Description of Proposed Plan Changes</u>

Plan Freeze: No further benefit accruals beginning October 1, 2022.



