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September 24, 2013

Mr. Steven Bland, CFA, CAIA, MS
Retirement Administrator
City of Alexandria
Department of Finance
301 King Street, Room 1400
Alexandria, VA 22314

City of Alexandria (55200) - Cost Study of Hazardous Duty Alternate Option HB 1532

Dear Mr. Bland:

As requested, we have estimated the impact of providing benefits to Deputy Sheriffs, Medics, and Fire Marshalls under HB 1532 and SB 854 for eligible members of the City of Alexandria participating in the Virginia Retirement System. In the attached exhibit, we present a summary comparing the current benefits. Currently, members vested as of January 1, 2013 are in Plan 1 and members not vested as of January 1, 2013 and joining the plan on or after that date are in Plan 2.

In accordance with the hazardous duty alternate option (HB 1532) we have estimated the cost of providing Plan 2 non-hazardous duty benefits while using Plan 1 non-hazardous duty retirement eligibility for the members in hazardous duty positions eligible for these benefits. Our study is based on the data and actuarial assumptions and methods used in the June 30, 2012 actuarial valuation for the City of Alexandria. VRS provided us with data identifying 60 employees eligible for the proposed benefits. In matching this data to our valuation data, there were 42 records that were active, in Plan 1 and non-vested as of January 1, 2013 or in Plan 2 as of the June 30, 2012 actuarial valuation and included in this study. In the table below we present a summary of the data used for this cost study:

	Data Summary 6/30/2012 Valuation	Affected by HB 1532
Active Members		
Plan 1 <i>Vested Members as of 1/1/2013</i>	1,369	0
Plan 1 <i>Non-Vested Members as of 1/1/2013</i>	177	12
Plan 2 General Members	220	30
Total Active Members	1,766	42

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

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In the table below we present the estimated cost to provide Plan 2 benefits while using Plan 1 retirement eligibility to Deputy Sheriffs, Medics, and Fire Marshalls under HB 1532 and SB 854.

	(1)	(2)
	6/30/2012 Valuation Results	Estimated 6/30/2012 Valuation Results with Deputy Sheriffs, Medics and Fire Marshalls (Plan 1 Non-Hazardous Retirement Eligibility and Plan 2 Non-Hazardous Benefits)
Number of Actives	1,766	1,766
Total Town payroll	\$117,489,335	\$117,489,335
Actuarial Accrued Liability	\$485,591,335	\$485,613,082
Actuarial Value of Assets	\$352,758,637	\$352,758,637
Unfunded Actuarial Accrued Liability	\$132,832,698	\$132,854,445
Gross Normal Cost	\$11,344,676	\$11,354,314
Gross Normal Cost Rate	9.66%	9.66%
Unfunded Accrued Liability Rate	6.32%	6.32%
Gross Estimated Cost Rate	15.98%	15.98%
<u>Gross</u> First Year Cost Increase Based on Total Town payroll		\$10,854

Please note the contribution amounts and rates presented above are in total (employer plus employee). The net employer total cost rate would be the gross total cost rate shown above minus the member contribution rate.

The contribution rates presented in the table above are a percentage of the total payroll for active members in the plan as of June 30, 2012. The cost increase as a percentage of the payroll of \$1,991,495 for the 42 employees affected by the proposed benefits is 0.55%.

The estimated costs shown above are based on the City of Alexandria plan census data and estimated financial position as of July 1, 2012. Please note that the costs will



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fluctuate in the future as the plan's data and financial conditions change. If the calculation is redone in the future with different data, plan assets and/or measurement date, the results will change. It is important to keep in mind that future plan experience (e.g., pay increases, turnover and retirement patterns, and the addition of new members) will not match the actuarial assumptions exactly. The deviations of actual from expected plan experience will produce actuarial experience gains and losses which will impact the total employer contribution rate and the cost estimate presented above.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Please let us know if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jose I. Fernandez', with a stylized, flowing script.

Jose I. Fernandez ASA, FCA, MAAA, EA
Principal and Consulting Actuary

Copies to: Cynthia Comer (VRS)
Susan M. Keith (VRS)
Rory Badura (VRS)



EXHIBIT I

VIRGINIA RETIREMENT SYSTEM **SUMMARY OF BENEFIT PROVISIONS**

	Non-Hazardous Duty Employees (Non-LEOS)	
	Plan 1 (Vested as of 1/1/2013)	Plan 2 (NonVested as of 1/1/2013 and new members on and after that date)
Normal retirement eligibility	Age 65 with at least 5 years of service	Normal Social Security Retirement Age with at least 5 years of service
Early retirement eligibility	Age 50 with at least 10 years of service, or age 55 with at least 5 years of service	Age 60 with at least 5 years of service
Early retirement reduction	Benefit reduced for each year retirement age is before age 65 or for each year service at retirement is less than 30, whichever provides greater benefit	Benefit reduced for each year retirement age is before Normal Social Security Retirement Age
Unreduced Early Retirement	Age 50 with at least 30 years of service	Age plus service equals 90 points
Final Average Compensation	Average of the employee's 36 highest consecutive months of creditable compensation	Average of the employee's 60 highest consecutive months of creditable compensation
Benefit Multiplier	1.70%	1.65% (1.70% for service before 1/1/2013)
Cost-of-Living-Adjustment (COLA)	COLA increase on July 1 of the second calendar year after retirement. Automatic COLA increase is calculated as the first 3% of the CPI plus half of each percent from 3% to 7%, maximum COLA of 5%	COLA increase on July 1 of the second calendar year after retirement. Automatic COLA increase is calculated as the first 2% of the CPI plus half of each percent from 2% to 4%, maximum COLA of 3%
Annual supplement from date of retirement to Social Security normal retirement age	No	No