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August 19, 2015

Mr. David M. Williams
Administrator
City of Hollywood Police Officers'
Retirement System
4205 Hollywood Blvd., Suite 4
Hollywood, FL 33021

Actuarial Impact Statement Proposed Benefit Changes

Dear Dave:

We are writing to report on the actuarial impact to the City of Hollywood Police Officers' Retirement System ("System") of proposed benefit changes. We have attached a table with the results of our studies. The proposed changes include:

(1) Remove "And" language from the requirement of age of 52 and 25 years of service for a normal retirement for members not vested on September 30, 2011. Those officers would be eligible for normal retirement at the age 55 and the completion of 10 years of service or the completion of 25 years of credited service, regardless of age.

(2) Multiplier increasing to 3.3% for service up to September 30, 2011 for members not vested on September 30, 2011.

(3) Reformed Planned Retirement (PR).

- Allow employees, upon entering Reformed Planned Retirement, to elect one of the following two (2) options. The election shall be irrevocable:
  - (i) While participating in Reformed Planned Retirement, contribute 8% of earnings as that term is defined in Section 33.126 of the City Code until termination of employment and upon termination continue to have the three options currently allowed under Planned Retirement and set forth in Section 33.128(G)(4) of the City Code; or
  - (ii) While participating in Reformed Planned Retirement, contribute 0.5% of earnings as that term is defined in Section 33.126 of the City Code and upon termination only be provided with the first option set forth in Section 33.128(G)(4) of the City Code, which is taking a lump sum

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payment that would be valued based on the number of years the employee worked after electing to participate in Planned Retirement.

- For employees who choose this option, any Plan earnings/losses calculated into the employee's lump sum payment shall be based on the Plan's actual investment rate of return.

- An employee may enter Reformed Planned Retirement at any time on or after reaching his/her normal retirement date.
- Employees currently in Planned Retirement will be given 60 days from the implementation of the Reformed Planned Retirement to make their election. If they elect the new option, they will receive a refund of their contribution into Planned Retirement (7.5%).
- Members electing to participate in Reformed Planned Retirement shall not exceed 30 years of service with the City including any time participating in Planned Retirement, Reformed Planned Retirement or a combination of both.
- Participation in Planned Retirement, Reformed Planned Retirement or a combination of both shall be limited to 8 years for those with 10 or more years of service as of September 30, 2011 and 5 years for those with less than 10 years of creditable service as of September 30, 2011.

(4) If a member terminates with less than 10 years of service, the member will receive a refund of contributions without interest, instead of the current 3% interest.

(5) Police officers shall become members of the Retirement System and begin contributing into the Retirement System upon their hire (currently they begin to contribute upon completion of probation).

Our understanding of the proposed benefits is based on the draft of the ordinance of the pension changes attached to Ms. Raquel Elejabarrieta's August 10, 2015 email, and various correspondence and discussions with respect to the proposed changes.

Below we outline the methods and assumptions used in our studies.

(1) The studies are based on the October 1, 2014 actuarial valuation of the System.

(2) The assumed valuation interest rate (investment return) is 8% per year.

(3) We have used revised retirement rates to evaluate the impact of the change in eligibility for normal retirement under proposal (1) above for members not vested on September 30, 2011.

(4) Our estimate of the impact of the 0.5% member contribution under the proposed Reformed Planned Retirement benefit is based on the data received for the October 1, 2014 actuarial valuation of the Retirement System which included 22 active members with pay of $2,005,141 who have elected the Planned Retirement benefit. We have estimated the impact of the refund of 7.5% of pay contributions to those members currently in the Planned Retirement benefit based on the 8% contributions without interest of $354,836 that those members have made while in the Planned Retirement benefit as reported to us by the Retirement System. Based on the information provided we have estimated the 7.5% contributions to be refunded will be approximately $332,659.

(5) Under the Reformed Planned Retirement benefit proposal we have assumed that all eligible members will elect to contribute 0.5% of pay and will take the lump sum payment equal to the annual pension calculated as of the Planned Retirement benefit date times the number of years of service after that date.

(6) The current Planned Retirement benefit lump sum interest credits are based on the plan's asset return and the funded status of the System. Based on the System's current funded status and assumed investment return of 8% per year we currently assume a 5% per year interest credit on the Planned Retirement benefit lump sum. Under the current proposal the Planned Retirement benefit lump sum will receive interest credits based on the plan's actual asset return, regardless of the System's funded status. Since the System's assumed investment return rate is 8% per year and the current annual assumed interest credit for the Planned Retirement benefit is 5%, the change from the current 5% assumption to a credit approximating the plan's assumed return of 8% may represent a loss of savings to the City. However, the proposed crediting rate also subjects members to losses if the return is less than 0% while the current interest credit cannot go below 0%. Also, over the last 10 years the System's average investment return has been approximately 7% per year. Modeling of asset returns also appears to indicate that short-term (like the five to eight year periods for the Reformed Planned Retirement) investment returns are more likely to be lower than expected long-term investment returns. Therefore, for the purpose of this impact statement we believe an interest crediting rate lower than the System's assumed rate of 8% is appropriate and we have assumed an annual interest credit under the Reformed Planned Retirement of 7%.

In the attached Impact of Proposed Plan Changes table we present the impact of proposed changes (1) through (4), including the estimated contribution requirements for fiscal year 2015-2016.

The estimated costs for the 0.5% member contributions while in the Reformed Planned Retirement benefit are for current Planned Retirement benefit members. We anticipate the annual cost will increase in the future as more members join the Reformed Planned Retirement benefit.

Under the Retirement System's current funding policy and as permitted under Florida Statutes changes in the unfunded actuarial accrued liability under the proposals are amortized over a 30-year period. We should note that the trend in current actuarial funding standards is to use shorter amortization periods for benefit changes that apply to retirees. The refund of the 7.5% contributions to members currently in the Planned Retirement benefit will be applicable to members who are close to retirement. To measure the sensitivity of using a shorter amortization period for this proposal we have estimated the City contributions would increase approximately $45,000 and $33,000 if the System uses amortization periods of 10 and 15 years, respectively, for this proposed change instead of the $21,537 increase under 30-year amortization.

The proposal to have police officers become members of the Retirement System and begin contributing into the Retirement System upon their hire will not have an immediate impact on the System. Instead the cost impact will be realized over future years as new employees enter the plan. We understand that typically new officers join the System after one to two years of probationary service. During the period of probationary service the officer does not make contributions to the System or receive service credits for their probationary period. However, once the officer joins the System, he or she can purchase service credits for the probationary time by making a contribution of 8% of pay at the time of purchase times the years of service purchased. Generally, when the member purchases the probationary time we would expect an actuarial loss and an increase in City cost because the service purchase price is less than the actuarial cost of the service purchased and the service has not been pre-funded from the officer's date of hire. To illustrate the estimated cost impact we have analyzed the cost for the "average" new member assuming (1) the officer joins the System immediately and (2) the officer joins the System after one to two years of probationary service. The "average" new member is based on the data provided by the System for officers currently in the probationary period. The System provided data for 53 officers with average age at hire of 27 years and average annual pay of approximately $53,000. We have estimated that under the current approach which delays System membership until the end of the probationary period and which generally results in the officer buying the probationary time the contribution rate to the System is higher by about 1% of the officer's pay at the time of System membership compared to having the member join the System at the time of hire. Some of this cost is offset because by deferring System membership by one to two years the City has not had to make a contribution to the plan for that period. Overall, we do not expect the financial impact of this proposal will be significant. However, we believe the proposed approach is consistent with pre-funding of pension benefits under Florida Statutes and the actuarial cost method used for the System which aims to determine the level percent of pay contribution from the member's date of hire to retirement age to fund the member's benefit at retirement.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the 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. Since the potential impact of such factors is outside the scope of a normal actuarial impact study, an analysis of the range of results is not presented herein.

This actuarial study was prepared and completed by myself 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 comply with the requirements and intent of s. 14, Art. X of the State Constitution, with Part VII, Chapter 112, and s. 112.64, Florida Statutes.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Jose I. Fernandez | Todd B. G

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Principal and Consulting Actuary
Enrolled Actuary No. 14-4461

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City of Hollywood Police Officers' Retirement System
Impact of Proposed Plan and Member Contribution Changes
Based on October 1, 2014 Actuarial Valuation for Fiscal Year 2016 City Contributions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					Reformed Planned Retirement Benefit			
	Current Plan Actuarial Valuation 10/1/2014	3.3% Multiplier for Service at 9/30/11 for Members Not Vested on 9/30/11	Retirement at 25 Years of Service or Age 55 and 10 Years of Service for Members Not Vested on 9/30/11	No Interest on Refund of Contributions for Non-Vested Terminations	Lump Sum Interest Credit	Refund of 7.5% Member Contribution for those in PRB	0.5% Member Contribution from Members in Reformed PRB	Combined (2), (3), (4), (5), (6) & (7)
1. Total Projected Payroll	**$17,082,050**	**$17,082,050**	**$17,082,050**	**$17,082,050**	**$17,082,050**	**$17,082,050**	**$17,082,050**	**$17,082,050**
2. Derivation of Total Contributions								
a. Present Value of Future Benefits	$353,286,611	$353,744,055	$353,361,835	$353,266,241	$355,363,592	$355,363,592	$355,363,592	$355,857,527
b. Present Value of Future Normal Cost	($34,343,749)	($34,550,748)	($34,301,883)	($34,318,420)	($34,935,118)	($34,935,118)	($34,935,118)	($35,060,687)
c. Actuarial Accrued Liability (AAL)	$318,942,862	$319,193,307	$319,059,952	$318,947,821	$320,428,474	$320,428,474	$320,428,474	$320,796,840
d. Actuarial Value of Assets	($172,701,186)	($172,701,186)	($172,701,186)	($172,701,186)	($172,701,186)	($172,368,527)	($172,368,527)	($172,368,527)
e. Unfunded Accrued Liability (c. + d.)	**$146,241,676**	**$146,492,121**	**$146,358,766**	**$146,246,635**	**$147,727,288**	**$148,059,947**	**$148,059,947**	**$148,428,313**
f. Normal Cost with Interest	$3,518,988	$3,537,837	$3,529,716	$3,517,547	$3,582,955	$3,582,955	$3,582,955	$3,610,350
g. Payment to Amortize Unfunded Liability	$11,256,072	$11,271,702	$11,263,379	$11,256,381	$11,348,785	$11,369,546	$11,369,546	$11,392,534
h. Administrative Expenses	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000
i. Bi-weekly Interest Adjustment	$568,122	$569,413	$568,797	$568,080	$573,988	$574,765	$574,765	$576,651
j. Total (f. + g. + h. + i.)	**$15,743,182**	**$15,778,952**	**$15,761,893**	**$15,742,009**	**$15,905,728**	**$15,927,266**	**$15,927,266**	**$15,979,536**
3. Expected Contributions Fiscal Year 2016								
a. Expected Member Contributions	$1,366,564	$1,366,564	$1,366,564	$1,366,564	$1,366,564	$1,366,564	$1,216,178	$1,216,178
b. Expected Chapter 185 Monies	$1,269,750	$1,269,750	$1,269,750	$1,269,750	$1,269,750	$1,269,750	$1,269,750	$1,269,750
c. Expected City Contribution	$13,106,868	$13,142,638	$13,125,579	$13,105,695	$13,269,414	$13,290,952	$13,441,337	$13,493,607
d. Total (a. + b. + c.)	**$15,743,182**	**$15,778,952**	**$15,761,893**	**$15,742,009**	**$15,905,728**	**$15,927,266**	**$15,927,266**	**$15,979,536**
4. Changes Compared to Current Plan (except columns (6) and (7) are in comparison to column (5))								
a. Present Value of Future Benefits		**$457,444**	**$75,224**	**($20,370)**	**$2,076,981**	**$0**	**$0**	**$2,570,916**
b. Unfunded Accrued Liability		**$250,445**	**$117,090**	**$4,959**	**$1,485,612**	**$332,659**	**$0**	**$2,186,637**
c. Normal Cost with Interest		**$18,849**	**$10,728**	**($1,441)**	**$63,967**	**$0**	**$0**	**$91,362**
d. Expected Member Contributions		**$0**	**$0**	**$0**	**$0**	**$0**	**($150,386)**	**($150,386)**
e. Expected City Contribution		**$35,770**	**$18,711**	**($1,173)**	**$162,546**	**$21,537**	**$150,386**	**$386,739**