CITY OF HOLLYWOOD FIREFIGHTERS' PENSION FUND

ACTUARIAL IMPACT STATEMENT

April 20, 2016

Attached hereto is a comparison of the impact on the Total Required Contribution (per Chapter 112, Florida Statutes), and the Required City Contributions, resulting from the implementation of the following changes:

- 1.) In the event that the Board finds that a member is totally and permanently disabled by the plan's definition, the City may assign the member to a modified duty or light duty position. If the City makes available a modified or light duty position, and a member rejects the assignment, said member shall be ineligible for either continued employment or disability retirements.
- 2.) Regarding the DROP account benefit of any current City employee who was previously a member of the General Employees Plan and who later moved to a Firefighter position and is a member of the Firefighter's Pension Fund and is now participating in the DROP in the Firefighter's Pension Fund, any DROP benefit being held for that employee in the General Plan may be moved from the General Plan to the Firefighters Plan. To value the impact of this it is assumed that one employee will be transferring \$108,371.

The cost impact, determined as of October 1, 2014, for the fiscal year ending September 30, 2016 is as follows:

Total Required Contribution	<u>Current</u> 16,294,237	<u>Proposed</u> 16,294,237
Expected Member Contributions	1,356,196	1,356,196
Required City & State Contributions	14,938,041	14,938,041
Estimated State Contribution	1,562,180	1,562,180
Balance from City	13,375,861	13,375,861

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ACTUARIAL IMPACT STATEMENT

April 20, 2016 (Page 2)

The changes presented herein are in compliance with Part VII, Chapter 112, Florida Statutes and Section 14, Article X of the State Constitution. The undersigned is familiar with the immediate and long-term aspects of pension valuations and meets the Qualification Standards of the American Academy of Actuaries necessary to render the opinions contained herein.

Bradley R. Heinrichs FSA, EA, MAAA

Enrolled Actuary #14-6901

STATEMENT OF PLAN ADMINISTRATOR

The prepared information presented herein reflects the estimated cost of the proposed

improvement.

Chairman, Board of Trustees

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

A. Participant Data	New Benefits <u>10/1/2014</u>	Old Benefits <u>10/1/2014</u>
Number Included Actives Service Retirees DROP Retirees Beneficiaries Terminated Vested Disability Retirees	188 169 24 41 9 20	188 169 24 41 9 20
Total	451	451
Total Annualized Non-DROP Payroll Payroll Under Assumed Ret. Age	\$15,549,137 15,549,137	\$15,549,137 15,549,137
Annual Rate of Payments to:		
Service Retirees DROP Retirees Beneficiaries Terminated Vested Disability Retirees	11,760,432 1,704,522 846,439 221,808 921,097	11,760,432 1,704,522 846,439 221,808 921,097
B. Assets		
Actuarial Value ¹ Market Value ¹	185,376,032 202,698,922	185,267,661 202,590,551
C. Liabilities		
Present Value of Benefits Active Members Retirement Benefits Disability Benefits Death Benefits Vested Benefits Refund of Contributions Service Retirees DROP Retirees¹ Beneficiaries Terminated Vested Disability Retirees Excess State Monies Reserve Share Balance	103,704,154 5,200,033 1,659,629 1,512,026 294,738 146,745,085 104,550,070 8,359,347 2,704,830 10,416,454 11,040 62,925	103,704,154 5,200,033 1,659,629 1,512,026 294,738 146,745,085 104,441,699 8,359,347 2,704,830 10,416,454 11,040 62,925
Total	385,220,331	385,111,960

	New Benefits 10/1/2014	Old Benefits 10/1/2014
C. Liabilities - (Continued)	10/1/2014	10/1/2014
Present Value of Future Salaries	251,545,005	251,545,005
Present Value of Future Member Contributions	19,561,098	19,561,098
EAN Normal Cost (Retirement)	3,444,473	3,444,473
EAN Normal Cost (Disability)	314,648	314,648
EAN Normal Cost (Death)	76,949	76,949
EAN Normal Cost (Vesting)	121,735	121,735
EAN Normal Cost (Refunds)	47,780	47,780
Total Normal Cost (Entry Age Method)	4,005,585	4,005,585
D AVI CE (
Present Value of Future	58,715,056	58,715,056
Normal Costs (Entry Age)	36,713,030	38,713,030
Accrued Liability (Retirement)	51,534,875	51,534,875
Accrued Liability (Disability)	1,200,085	1,200,085
Accrued Liability (Death)	445,930	445,930
Accrued Liability (Vesting)	445,934	445,934
Accrued Liability (Refunds)	28,700	28,700
Accrued Liability (Inactives) ¹	272,775,786	272,667,415
Excess State Monies Reserve	11,040	11,040
Share Balance	62,925	62,925
Total Actuarial Accrued Liability	326,505,275	326,396,904
Unfunded Actuarial Accrued Liability (UAAL)	141,129,243	141,129,243
D. Actuarial Present Value of Accrued Benefits		
Vested Accrued Benefits		
Inactives ¹	272,775,786	272,667,415
Share Balance	62,925	62,925
Actives	23,435,456	23,435,456
Member Contributions	10,047,520	10,047,520
Total	306,321,687	306,213,316
Non-vested Accrued Benefits	13,182,183	13,182,183
Non-vested Accrued Benefits Total Present Value Accrued Benefits	13,182,183 319,503,870	13,182,183 319,395,499
Total Present Value Accrued Benefits		
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of		
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of Accrued Benefits Attributable to:	319,503,870	
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of Accrued Benefits Attributable to: Plan Amendments		
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of Accrued Benefits Attributable to: Plan Amendments Assumption Changes	319,503,870 108,371	
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of Accrued Benefits Attributable to: Plan Amendments Assumption Changes New Accrued Benefits	319,503,870 108,371 0	
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of Accrued Benefits Attributable to: Plan Amendments Assumption Changes New Accrued Benefits Benefits Paid	319,503,870 108,371 0	
Total Present Value Accrued Benefits Increase (Decrease) in Present Value of Accrued Benefits Attributable to: Plan Amendments Assumption Changes New Accrued Benefits	319,503,870 108,371 0 0 0	

Valuation Date Applicable to Plan Year Ending	New Benefits 10/1/2014 9/30/2016	Old Benefits 10/1/2014 <u>9/30/2016</u>
E. Pension Cost		
Normal Cost (with interest) ²	\$4,456,213	\$4,456,213
Administrative Expenses (with interest) ²	706,686	706,686
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (with interest) ² (as of 10/1/2014)	11,131,338	11,131,338
Total Required Contribution ²	16,294,237	16,294,237
Expected Member Contributions ²	1,356,196	1,356,196
Expected City & State Contribution ² % of Total Annual Payroll	14,938,041 96.1%	14,938,041 96.1%

¹ The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2014.

 $^{^{\}rm 2}$ Contributions developed as of 10/1/2014 displayed above have been adjusted to account for 1.5 years of interest.

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rates

Healthy Lives

RP-2000 Combined Healthy - Sex Distinct. Based on a study of over 650 public safety funds, the RP-2000 table reflects a 10% margin for future mortality improvements.

Disabled Lives

RP-2000 Disabled Table.

Interest Rate

7.50% per year compounded annually, net of investment related expenses (previously 7.60%).

13th Check Load

An underlying interest rate of 7.20% is used (0.3% lower than the assumed rate) to account for the 13th check. Additionally, since the DROP Balances are included in the computation of the 13th check, the resulting load on the accrued liabilities is increased by 60% to account for this.

Termination Rates

	% Terminating
Age	During the Year
20	10.30%
25	7.30
30	4.15
35	1.82
40	0.99
45	0.48

Disability Rates

	Ordinary	Service
Age	Disability Rate	Disability Rate
20	0.04%	0.03%
25	0.06	0.05
30	0.09	0.07
35	0.12	0.10
40	0.18	0.14
45	0.32	0.26
50	0.55	0.44
55	0.79	0.63

Line of Duty Incidence

Death - 15% in the line of duty.

Disability -45% in the line of duty.

Retirement Rates

For Members with 10 or more years of service as of September 30, 2011:

	Years of Service						
Age	10	11 – 22	23	24-30	31	32	33
45	0.00%	0.00%	5.00%	2.50%	2.50%	2.50%	100.00%
46	0.00	0.00	5.00	2.50	2.50	2.50	100.00
47	0.00	0.00	5.00	2.50	2.50	2.50	100.00
48	0.00	0.00	5.00	2.50	2.50	2.50	100.00
49	0.00	0.00	5.00	2.50	2.50	2.50	100.00
50	5.00	5.00	5.00	2.50	2.50	2.50	100.00
51	5.00	2.50	2.50	2.50	2.50	2.50	100.00
52	5.00	2.50	2.50	2.50	2.50	2.50	100.00
53	5.00	2.50	2.50	2.50	2.50	2.50	100.00
54	5.00	2.50	2.50	2.50	2.50	2.50	100.00
55	10.00	2.50	2.50	2.50	15.00	30.00	100.00
56	10.00	2.50	2.50	2.50	15.00	30.00	100.00
57	10.00	2.50	2.50	2.50	15.00	30.00	100.00
58	15.00	15.00	15.00	15.00	15.00	30.00	100.00
59	15.00	15.00	15.00	15.00	15.00	30.00	100.00
60	100.00	100.00	100.00	100.00	100.00	100.00	100.00

For Members with less than 10 of service as of September 30, 2011:

	Years of Service					
Age	10	11 – 24	25-30	31	32	33
45	0.00%	0.00%	2.50%	2.50%	2.50%	100.00%
46	0.00	0.00	2.50	2.50	2.50	100.00
47	0.00	0.00	2.50	2.50	2.50	100.00
48	0.00	0.00	2.50	2.50	2.50	100.00
49	0.00	0.00	2.50	2.50	2.50	100.00
50	0.00	0.00	2.50	2.50	2.50	100.00
51	0.00	0.00	2.50	2.50	2.50	100.00
52	0.00	0.00	2.50	2.50	2.50	100.00
53	0.00	0.00	2.50	2.50	2.50	100.00
54	0.00	0.00	2.50	2.50	2.50	100.00
55	10.00	2.50	2.50	15.00	30.00	100.00
56	10.00	2.50	2.50	15.00	30.00	100.00
57	10.00	2.50	2.50	15.00	30.00	100.00
58	15.00	15.00	15.00	15.00	30.00	100.00
59	15.00	15.00	15.00	15.00	30.00	100.00
60	100.00	100.00	100.00	100.00	100.00	100.00

Salary Increases

Years of Service	Rate
0	35.00%
1	12.00
2	10.00
3	9.00
4	8.50
5	8.00
6	7.50
7	7.25
8	7.25
9+	7.00

Payroll Growth

Administrative Expenses

Funding Method

Actuarial Asset Method

Up to 3.00% per year.

Equivalent to those incurred in the prior year, \$635,223 for 2014.

Entry Age Normal Actuarial Cost Method.

The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses), is phased-in over a five-year period.

SUMMARY OF PLAN PROVISIONS

(Through Ord. No. O-2013-14 with pending provisions from February 12, 2015 actuarial impact statement)

LATEST AMENDMENT

July, 3, 2013.

ELIGIBILITY

Full-time employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.

CREDITED SERVICE

Total years and fractional parts of years of employment with the City as a Firefighter with Member contributions (computed in quarters with one to three months being one-quarter, more than three but not more than six months being one-half of a year, more than six but not more than nine months being three-quarters of a year, and more than nine but not more than twelve months being one years as a Firefighter).

TIER 1 MEMBER

Hired prior to July 16, 2009.

TIER 2 MEMBER

Hired on or after July 16, 2009.

COMPENSATION

For Compensation earned prior to October 1, 2011: Fixed remuneration for services rendered to the City as a Firefighter, including accrued sick leave compensation up to 2,200 hours. Compensation for Tier 1 Members shall include workers' compensation/supplemental compensation, expense allowances, cash conversion of holiday benefits, up to 300 hours of overtime, 70% of the cash payment accumulated, unused annual leave paid at the time of retirement or entry into DROP, expense allowances, and education incentive payment from the Insurance Commissioner's Trust Fund.

For Compensation earned after October 1, 2011: Fixed remuneration for services rendered to the City as a Firefighter, including only wages and education incentive payment from the Insurance Commissioner's Trust Fund and excluding overtime, workers compensation/supplemental compensation, expense allowances, cash conversion of holiday benefits, accrued leave payouts and cash conversion of blood time and compensatory time.

AVERAGE FINAL COMPENSATION (AFC)

Benefits accrued prior to October 1, 2011

Tier 1 Members:

Average compensation of the three highest years of

Credited Service.

Tier 2 Members:

Average compensation of the five highest years of

Credited Service.

Benefits accrued on and after October 1, 2011

Average compensation of the 60 highest <u>consecutive</u> months of the last 120 months of Credited Service.

MEMBER CONTRIBUTIONS

Tier 1 Members:

8.00% of compensation. Once Member has accrued

the maximum benefit of 86% of AFC, their contribution percentage reduces to 0.50% of

compensation.

Tier 2 Members:

7.50% of compensation. Once Member has accrued the maximum benefit of 82.50% of AFC, their contribution percentage reduces to 0.50% of

compensation.

Notwithstanding the above, all Members hired on or

after October 1, 2011 will contribute 7.50% of

compensation.

NORMAL RETIREMENT

Date

Tier 1 Members:

Less than 10 years of Credited Service as of

9/30/2011: Earlier of 1) Age 55 with 10 years of Credited Service, or 2) 25 years of Credited Service.

10 or more years of Credited Service as of

September 30, 2011: Earlier of 1) Age 50 with 10 years of Credited Service, or 2) 23 Years of Credited

Service, regardless of Age.

Tier 2 Members:

Earlier of 1) Age 55 with 10 years of Credited

Service, or 2) 25 years of Credited Service.

Benefit Amount

For benefits accrued prior to October 1, 2011 ("Frozen" piece):

Tier 1 Members: 3.30% of Average Final Compensation <u>times</u>

Credited Service. Maximum benefit of 86% of

Average Final Compensation.

Tier 2 Members: 3.20% of Average Final Compensation times

Credited Service. Maximum benefit of 82.50% of

Average Final Compensation.

For benefits accrued on and after October 1, 2011 ("Future service" piece):

Tier 1 Members: 3.00% of Average Final Compensation times

Credited Service. Maximum benefit of 86% less 3.30% times the Credited Service accrued through

9/30/2011.

Tier 2 Members: 3.00% of Average Final Compensation <u>times</u>

Credited Service. Maximum benefit of 73.60% of

Average Final Compensation.

Form of Benefit For unmarried Members, Ten Year Certain and Life

Annuity. For married Members, 50% Joint and

Survivor annuity with Ten Years Certain.

COST OF LIVING INCREASES

"Frozen" Piece Retirees receive a 2.00% per year cost-of-living

adjustment commencing three years after retiree's

benefit payments have begun.

"Future Service" Piece None.

VESTING

Schedule 100% after 10 years of Credited Service.

Benefit Amount Member will receive the vested portion of his (her)

accrued benefit payable at age 50 if the Member has at least 10 years of service as of 9/30/11. Otherwise,

the benefit is payable at age 55.

DISABILITY

Eligibility

Service Incurred Covered from Date of Employment.

Non-Service Incurred 5 years of Credited Service.

Benefit

Service Incurred

75% of compensation at the time of disability. The benefit will be offset by any worker's compensation, pension, or similar benefit payable to the Member or to his dependents.

Non-Service Incurred

25% of earnings at the time of determination of disability. The benefit will be offset by any worker's compensation, pension, or similar benefit payable to the Member or to his dependants. Upon attainment of normal retirement age, the benefit will be recomputed as a normal retirement benefit with service included for the period of time that the member was receiving a disability retirement benefit.

Form of Payment

10 Year Certain and Life annuity, with a 100% survivor annuity payable to the spouse until death or remarriage (in the case of a member who dies prior to age 50 while receiving a non-service connected disability) or with a 50% survivor annuity payable to the spouse until death or remarriage (for all other members).

DEATH BENEFITS

Service Connected

50% of compensation at the date of death payable as a monthly life and 10 years certain benefit to the spouse until death or remarriage.

Non-service Connected

For Members with five years of service, greater of accrued benefit or 25% of compensation at the date of death payable as a monthly life and 10 years certain benefit to the spouse until death or remarriage.

DEFERRED RETIREMENT OPTION PLAN

Eligibility

Only those Members were eligible to retire as of September 30, 2011. There is no DROP for other Members.

Participation

Not to exceed 96 months, but pre-DROP service plus DROP service cannot exceed 33 years.

Rate of Return

6.00% for Tier 1 employees. 4.00% for Tier 2 employees.

Form of Distribution

Cash lump sum (options available) at termination of employment.