### CITY OF SOUTH PASADENA FIREFIGHTERS' RETIREMENT SYSTEM

SECTION 112.664, <u>FLORIDA STATUTES</u> COMPLIANCE

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me 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, meet the requirements of Section 112.664(1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

By: Date: 9/10/2015

Patrick T. Donlan, EA, ASA, MAAA Enrolled Actuary #14-6595



When reviewing the following schedules, please note the following:

- 1) The purpose of producing this report is solely to satisfy the requirements set forth by Section 112.664, <u>Florida Statutes</u>, and is mandatory for every Florida public pension fund, excluding the Florida Retirement System (FRS).
- 2) None of the schedules shown have any impact on the funding requirements of the Plan. These schedules are for statutory compliance purposes only.
- 3) In the schedules that follow, the columns labeled "ACTUAL" represent the final recorded GASB 67/68 results. The columns labeled "HYPOTHETICAL" illustrate what the results would have been if different assumptions were used.
- 4) It is our opinion that the Plan's actual assumptions utilized in the October 1, 2014 Actuarial Valuation Report, as adopted by the Board of Trustees, are reasonable individually and in the aggregate, and represent our best estimate of future Plan experience.
- 5) The "Number of Years Expected Benefit Payments Sustained" calculated in Section II: Asset Sustainability should <u>not</u> be interpreted as the number of years the Plan has left until it is insolvent. This calculation is required by 112.664, <u>Florida Statutes</u>, but the numeric result is irrelevant, since in its calculation we are to assume there will be no further contributions to the Fund. As long as the Actuarially Determined Contribution is made each year the Plan will never become insolvent.

### SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

	ACTUAL	HYPOTHETICAL					
	7.75% RP-2000 Static 9/30/2014	7.75% RP-2000 Generational 9/30/2014	5.75% RP-2000 Generational 9/30/2014	9.75% RP-2000 Generational 9/30/2014			
Total Pension Liability							
Service Cost	109,667	114,814	177,673	76,515			
Interest	622,005	642,892	586,070	676,885			
Change in Excess State Money	=	=	-	-			
Change in Funding Standard Account	-	-	-	-			
Share Plan Allocation	-	=	-	=			
Changes of Benefit Terms	-	-	-	-			
Differences Between Expected and Actual							
Experience	-	-	-	-			
Changes of Assumptions	-	=	-	=			
Contributions - Buy Back	-	-	-	-			
Benefit Payments, Including Refunds of							
Employee Contributions	(542,143)	(542,143)	(542,143)	(542,143)			
Net Change in Total Pension Liability	189,529	215,563	221,600	211,257			
Total Pension Liability - Beginning	8,202,719	8,467,076	10,301,369	7,152,406			
Total Pension Liability - Ending (a)	8,392,248	\$ 8,682,639	\$ 10,522,969	\$ 7,363,663			
Plan Fiduciary Net Position							
Contributions - Employer	198,912	198,912	198,912	198,912			
Contributions - State	48,975	48,975	48,975	48,975			
Contributions - Employee	39,662	39,662	39,662	39,662			
Contributions - Buy Back	-	-	-	-			
Net Investment Income	636,387	636,387	636,387	636,387			
Benefit Payments, Including Refunds of	,	,	,	,			
Employee Contributions	(542,143)	(542,143)	(542,143)	(542,143)			
Administrative Expense	(27,419)	(27,419)	(27,419)	(27,419)			
Other		<del>_</del>					
Net Change in Plan Fiduciary Net Position	354,374	354,374	354,374	354,374			
Plan Fiduciary Net Position - Beginning	6,244,625	6,244,625	6,244,625	6,244,625			
Plan Fiduciary Net Position - Ending (b)	\$ 6,598,999	\$ 6,598,999	\$ 6,598,999	\$ 6,598,999			
Net Pension Liability - Ending (a) - (b)	\$ 1,793,249	\$ 2,083,640	\$ 3,923,970	\$ 764,664			

Table 1 Plan Assumptions: 7.75% and RP-2000 Static Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	6,598,999	-	1,287,454	-	461,534	5,773,079
2015	5,773,079	-	589,511	-	424,570	5,608,138
2016	5,608,138	-	586,924	-	411,887	5,433,101
2017	5,433,101	-	584,763	-	398,406	5,246,744
2018	5,246,744	-	582,727	-	384,042	5,048,059
2019	5,048,059	-	604,278	-	367,809	4,811,590
2020	4,811,590	-	617,184	-	348,982	4,543,388
2021	4,543,388	-	613,238	-	328,350	4,258,500
2022	4,258,500	-	628,094	-	305,695	3,936,101
2023	3,936,101	-	619,973	-	281,024	3,597,152
2024	3,597,152	-	628,078	-	254,441	3,223,515
2025	3,223,515	-	626,306	-	225,553	2,822,762
2026	2,822,762	-	616,702	-	194,867	2,400,927
2027	2,400,927	-	627,899	-	161,741	1,934,769
2028	1,934,769	-	633,127	-	125,411	1,427,053
2029	1,427,053	-	617,695	-	86,661	896,019
2030	896,019	-	607,119	-	45,916	334,816
2031	334,816	-	596,900	-	-	-

<sup>\*</sup>All DROP Balances paid in 2014.

Number of Years Expected Benefit Payments Sustained: 17.56

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 7.75% interest.

 $Table\ 2$  Hypothetical Assumptions: 7.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	6,598,999	-	1,287,684	-	461,525	5,772,840
2015	5,772,840	-	590,295	-	424,521	5,607,066
2016	5,607,066	-	588,328	-	411,750	5,430,488
2017	5,430,488	-	586,855	-	398,122	5,241,755
2018	5,241,755	-	585,602	-	383,544	5,039,697
2019	5,039,697	-	608,007	-	367,016	4,798,706
2020	4,798,706	-	621,870	-	347,802	4,524,638
2021	4,524,638	-	618,997	-	326,673	4,232,314
2022	4,232,314	-	637,874	-	303,287	3,897,727
2023	3,897,727	-	631,608	-	277,599	3,543,718
2024	3,543,718	-	641,654	-	249,774	3,151,838
2025	3,151,838	-	642,238	-	219,381	2,728,981
2026	2,728,981	-	635,053	-	186,888	2,280,816
2027	2,280,816	-	648,868	-	151,620	1,783,568
2028	1,783,568	-	656,762	-	112,777	1,239,583
2029	1,239,583	-	644,712	-	71,085	665,956
2030	665,956	-	637,568	-	26,906	55,294
2031	55,294	-	630,476	-	-	-

<sup>\*</sup>All DROP Balances paid in 2014.

Number of Years Expected Benefit Payments Sustained: 17.09

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 7.75% interest.

Table 3
Hypothetical Assumptions: 5.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	6,598,999	=	1,287,684	-	342,422	5,653,737
2015	5,653,737	-	590,295	-	308,119	5,371,561
2016	5,371,561	-	588,328	-	291,950	5,075,183
2017	5,075,183	-	586,855	-	274,951	4,763,279
2018	4,763,279	-	585,602	-	257,052	4,434,729
2019	4,434,729	-	608,007	-	237,517	4,064,239
2020	4,064,239	-	621,870	-	215,815	3,658,184
2021	3,658,184	-	618,997	-	192,549	3,231,736
2022	3,231,736	-	637,874	-	167,486	2,761,348
2023	2,761,348	-	631,608	-	140,619	2,270,359
2024	2,270,359	-	641,654	-	112,098	1,740,803
2025	1,740,803	-	642,238	-	81,632	1,180,197
2026	1,180,197	-	635,053	-	49,604	594,748
2027	594,748	-	648,868	-	-	-

<sup>\*</sup>All DROP Balances paid in 2014.

Number of Years Expected Benefit Payments Sustained: 13.92

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 5.75% interest.

Table 4
Hypothetical Assumptions: 9.75% and RP-2000 Generational Mortality

Fiscal Year Beginning 10/1	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments*	Projected Administrative Expense	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2014	6,598,999	-	1,287,684	-	580,628	5,891,943
2015	5,891,943	-	590,295	-	545,688	5,847,336
2016	5,847,336	-	588,328	-	541,434	5,800,442
2017	5,800,442	-	586,855	-	536,934	5,750,521
2018	5,750,521	-	585,602	-	532,128	5,697,047
2019	5,697,047	-	608,007	-	525,822	5,614,862
2020	5,614,862	-	621,870	-	517,133	5,510,125
2021	5,510,125	-	618,997	-	507,061	5,398,189
2022	5,398,189	-	637,874	-	495,227	5,255,542
2023	5,255,542	-	631,608	-	481,624	5,105,558
2024	5,105,558	-	641,654	-	466,511	4,930,415
2025	4,930,415	-	642,238	-	449,406	4,737,583
2026	4,737,583	-	635,053	-	430,956	4,533,486
2027	4,533,486	-	648,868	-	410,383	4,295,001
2028	4,295,001	-	656,762	-	386,745	4,024,984
2029	4,024,984	-	644,712	-	361,006	3,741,278
2030	3,741,278	-	637,568	-	333,693	3,437,403
2031	3,437,403	-	630,476	-	304,411	3,111,338
2032	3,111,338	-	613,092	-	273,467	2,771,713
2033	2,771,713	-	601,277	-	240,930	2,411,366
2034	2,411,366	-	584,956	-	206,592	2,033,002
2035	2,033,002	-	566,028	-	170,624	1,637,598
2036	1,637,598	-	546,426	-	133,028	1,224,200
2037	1,224,200	-	525,043	-	93,764	792,921
2038	792,921	-	503,044	-	52,786	342,663
2039	342,663	-	481,487	-	=	=

<sup>\*</sup>All DROP Balances paid in 2014.

Number of Years Expected Benefit Payments Sustained: 25.71

This projection assumes no further contributions, assumes no further benefit accruals, and assumes Market Value of Assets earn 9.75% interest.

# ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR ENDING SEPTEMBER 30, 2016

Valuation Date: 10/1/2014

_	ACTUAL	HYPOTHETICAL			
	7.75% RP-2000 Static	7.75% RP-2000 Generational	5.75% RP-2000 Generational \$606,687	9.75% RP-2000 Generational \$280,017	
Total Required Contribution	\$398,188	\$429,871			
Expected Member Contribution	45,984	45,984	45,541	46,426	
Expected State Money	48,975	48,975	48,975	48,975	
Expected Sponsor Contribution (Fixed \$)	\$303,229	\$334,912	\$512,171	\$184,616	
	,				
Expected Sponsor Contribution (% of Payroll)	41.1%	45.4%	69.4%	25.0%	
<u>ASSETS</u>					
Actuarial Value <sup>1</sup>	6,226,849	6,226,849	6,226,849	6,226,849	
Market Value <sup>1</sup>	6,598,999	6,598,999	6,598,999	6,598,999	
LIABILITIES					
Present Value of Benefits					
Active Members					
Retirement Benefits	2,349,263	2,471,158	3,729,709	1,711,236	
Disability Benefits	40,226	42,251	59,678	31,243	
Death Benefits	21,949	15,063	20,383	11,354	
Vested Benefits	275,960	290,497	466,620	189,323	
Refund of Contributions	11,803	11,807	12,475	11,213	
Service Retirees	1,737,060	1,801,963	2,106,895	1,568,861	
DROP Retirees <sup>1</sup>	4,259,605	4,368,892	5,138,319	3,812,309	
Beneficiaries	111,691	115,922	130,301	104,241	
Terminated Vested	37,157	38,659	46,329	32,969	
Disability Retirees Excess State Monies Reserve	651,125 15,444	676,388 15,444	808,887 15,444	578,850 15,444	
Total:	9,511,283	9,848,044	12,535,040	8,067,043	
Present Value of Future Salaries	5,948,484	5,957,341	6,674,709	5,380,540	
Present Value of Future					
Member Contributions	356,909	357,440	400,483	322,832	
Total Normal Cost (Entry Age Normal)	121,320	127,201	199,075	83,591	
Present Value of Future					
Normal Costs (Entry Age Normal)	957,587	1,007,751	1,791,533	590,995	
Total Actuarial Accrued Liability <sup>1</sup>	8,553,696	8,840,293	10,743,507	7,476,048	
Unfunded Actuarial Accrued Liability (Entry Age Normal)	2,326,847	2,613,444	4,516,658	1,249,199	

# ACTUAL AND HYPOTHETICAL CONTRIBUTIONS APPLICABLE TO THE FISCAL YEAR ENDING SEPTEMBER 30, 2016

Valuation Date: 10/1/2014

	ACTUAL	HYPOTHETICAL				
	7.75% RP-2000 Static	7.75% RP-2000 Generational	5.75% RP-2000 Generational	9.75% RP-2000 Generational		
PENSION COST						
Normal Cost <sup>2</sup>	132,763	139,199	215,755	92,356		
Administrative Expenses <sup>2</sup>	30,005	30,005	29,716	30,294		
Payment Required To Amortize UAAL <sup>2</sup> (with interest)	235,420	260,667	361,216	157,367		
Total Required Contribution	\$398,188	\$429,871	\$606,687	\$280,017		

<sup>&</sup>lt;sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2014.

<sup>&</sup>lt;sup>2</sup> Contributions developed as of 10/1/2014 include adjustments for interest and assumed salary increases.