

**JULY 1, 2013**  
**ACTUARIAL VALUATION OF**  
**THE NEW PENSION PLAN**  
**OF**  
**THE CITY OF CENTRAL FALLS**

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## Report Summary:

<u>Highlights</u>	<u>December 31, 2011</u>	<u>July 1, 2013</u>
<u>Contributions</u>		
Funding Schedule FY 2014	\$1,967,574	\$1,979,828
Funding Schedule FY 2015	\$2,023,489	\$2,035,938
<u>Funded Ratios</u>		
GAS No. 25	18.6%	18.4%
<u>Participants</u>		
Actives	70	72
Retirees and Beneficiaries	78	69
Vested	0	0
Inactives	0	0
Disabled	<u>63</u>	<u>61</u>
Total	211	202
<u>Payroll</u>		
Payroll of Active Members	\$3,620,778	\$3,849,274
Average Payroll	51,725	53,462
<u>Normal Cost</u>		
Employer	68,109	80,275
Employee	325,316	348,883
Administrative Expenses	<u>0</u>	<u>0</u>
Total	393,425	429,158
<u>Actuarial Accrued Liabilities</u>		
Actives	5,074,424	5,931,021
Retirees, Beneficiaries, Disabilities and Inactives	<u>24,347,299</u>	<u>24,236,648</u>
Total	29,421,723	30,167,669
<u>Actuarial Value of Assets</u>	<u>5,486,573</u>	<u>5,544,658</u>
<u>Unfunded Actuarial Accrued Liabilities</u>	\$23,935,150	\$24,623,011

## **Introduction**

The purpose of this report is to present the findings of an actuarial valuation as of July 1, 2013, of the Central Falls New Pension Plan.

The actuarial valuation is based on:

- Negotiated provisions with the Fire and Police unions as of July 1, 2013.
- Employee data provided by the City
- Asset information reported by the City of Central Falls

During the last eighteen months, the total unfunded actuarial accrued liability increased by 2.87% to \$24,649,534. The increase is less than expected. There was an actuarial gain of \$219,515.

## Actuarial Costs and Liabilities:

### Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

**Table I**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
Superannuation	\$230,728	\$252,777
Termination	17,600	18,422
Death	22,853	24,872
Disability	122,244	133,087
Administrative Expenses	<u>0</u>	<u>0</u>
Total Normal Cost	393,425	429,158
% of Pay	10.9%	11.1%
Employee Contributions	325,316	348,883
% of Pay	9.0%	9.1%
Employer Normal Cost	\$68,109	\$80,275
% of Pay	1.9%	2.1%

**Present Value of Actuarial Accrued Liabilities**

The actuarial accrued liabilities (AAL) represents today's value of all benefits based on the past service of the actives and inactive. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

**Table II**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
Actives		
Superannuations	\$4,171,174	\$4,929,846
Termination	(102,393)	(93,976)
Death	95,301	106,283
Disability	910,342	988,868
Retirees and Inactives		
Retirees and Beneficiaries	10,756,026	10,520,928
Vested	0	0
Terminated (Refund)	0	0
Disabled	<u>13,591,273</u>	<u>13,715,720</u>
Total	\$29,421,723	\$30,167,669

**Present Value of Future Benefits**

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

**Table III**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
Actives		
Superannuation	6,592,798	\$7,477,766
Termination	79,906	92,475
Death	333,211	355,462
Disability	2,192,742	2,332,438
Retirees and Inactives		
Retirees and Beneficiaries	10,756,026	10,520,928
Vested	0	0
Terminated (Refund)	0	0
Disabled	<u>13,591,273</u>	<u>13,715,720</u>
Total	\$33,545,956	\$34,494,789

## Funded Status and Appropriations:

### Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

**Table IV**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
Cash equivalents	\$23,024	\$0
JH GAC	4,902,299	5,544,658
JH NCU	544,478	0
Accounts receivable	16,771	16,771
Accounts payable	0	0
Accrued income	<u>0</u>	<u>0</u>
Total Market Value	\$5,486,573	\$5,561,429
Total Actuarial Value	\$5,486,573	\$5,544,658



**Unfunded Actuarial Accrued Liabilities**

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table V.

**Table V**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
Actuarial Accrued Liability	\$29,421,723	\$30,167,669
Actuarial Assets	<u>5,486,573</u>	<u>5,544,658</u>
Unfunded Actuarial Accrued Liability	\$23,935,150	\$24,623,011
Funded Status	18.6%	18.4%

**Appropriations**

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the policy setforth in 2002. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2033  
 \$ 24,623,011 over 20 years with 3.0% increasing payments
- Interest adjustment for payments deposited at the middle of the fiscal year.

The pension appropriation is shown in Table VI.

**Table VI**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
Normal cost	\$68,109	\$80,275
Amortization payment of the unfunded accrued liability	<u>1,724,062</u>	<u>1,827,024</u>
Total cost	\$1,792,171	\$1,907,299
% of Pay	49.5%	49.5%
Fiscal 2014 cost	\$1,967,574	\$1,979,828
Fiscal 2015 cost	\$2,023,489	\$2,035,938

### **Appropriation Forecast**

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 3% per year. The employee contribution rate is expected to increase to 10.5% by 2032 as members contributing base percentage of 9.5% are replaced by new members, whose base contribution is 10.5%. Payments are assumed to be made at the beginning of the year.

The employer total cost is expected to increase during the next 21 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents 50% of payroll until the time the unfunded liabilities are fully paid off, leaving only a normal cost of .7% in 2034. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

**Appropriation Forecast**

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Payroll*</u>	<u>Employee</u> <u>Contribution</u>	<u>Employer</u> <u>Normal Cost</u> <u>with Interest</u>	<u>Amortization</u> <u>Payments</u> <u>with Interest</u>	<u>Employer</u> <u>Total Cost</u> <u>with Interest</u>	<u>Employer</u> <u>Total Cost</u> <u>% of Payroll</u>	<u>Funded</u> <u>Ratio %**</u>
2014	\$3,849,274	\$348,883	\$83,328	\$1,896,500	\$1,979,828	51.4	18.4
2015	\$3,964,752	\$362,513	\$82,543	\$1,953,395	\$2,035,938	51.4	19.9
2016	\$4,083,695	\$376,648	\$81,637	\$2,011,997	\$2,093,634	51.3	21.7
2017	\$4,206,206	\$391,303	\$80,602	\$2,072,357	\$2,152,959	51.2	23.7
2018	\$4,332,392	\$406,500	\$79,431	\$2,134,527	\$2,213,958	51.1	26.0
2019	\$4,462,364	\$422,256	\$78,118	\$2,198,563	\$2,276,681	51.0	28.6
2020	\$4,596,234	\$438,591	\$76,654	\$2,264,520	\$2,341,174	50.9	31.5
2021	\$4,734,121	\$455,527	\$75,032	\$2,332,456	\$2,407,488	50.9	34.6
2022	\$4,876,145	\$473,084	\$73,244	\$2,402,429	\$2,475,673	50.8	38.0
2023	\$5,022,429	\$491,284	\$71,281	\$2,474,502	\$2,545,783	50.7	41.7
2024	\$5,173,102	\$510,151	\$69,134	\$2,548,737	\$2,617,871	50.6	45.7
2025	\$5,328,295	\$529,707	\$66,795	\$2,625,199	\$2,691,994	50.5	49.9
2026	\$5,488,144	\$549,978	\$64,252	\$2,703,955	\$2,768,207	50.4	54.4
2027	\$5,652,789	\$570,988	\$61,498	\$2,785,074	\$2,846,572	50.4	59.2
2028	\$5,822,372	\$592,764	\$58,520	\$2,868,626	\$2,927,146	50.3	64.3
2029	\$5,997,043	\$615,333	\$55,308	\$2,954,685	\$3,009,993	50.2	69.6
2030	\$6,176,955	\$638,722	\$51,850	\$3,043,326	\$3,095,176	50.1	75.2
2031	\$6,362,263	\$662,961	\$48,136	\$3,134,625	\$3,182,761	50.0	81.0
2032	\$6,553,131	\$688,079	\$44,151	\$3,228,664	\$3,272,815	49.9	87.1
2033	\$6,749,725	\$708,721	\$45,476	\$3,325,524	\$3,371,000	49.9	93.4
2034	\$6,952,217	\$729,983	\$46,840	\$0	\$46,840	0.7	100.0
2035	\$7,160,784	\$751,882	\$48,245	\$0	\$48,245	0.7	100.0
2036	\$7,375,607	\$774,439	\$49,693	\$0	\$49,693	0.7	100.0
2037	\$7,596,875	\$797,672	\$51,184	\$0	\$51,184	0.7	100.0
2038	\$7,824,782	\$821,602	\$52,719	\$0	\$52,719	0.7	100.0
2039	\$8,059,525	\$846,250	\$54,301	\$0	\$54,301	0.7	100.0
2040	\$8,301,311	\$871,638	\$55,930	\$0	\$55,930	0.7	100.0
2041	\$8,550,350	\$897,787	\$57,608	\$0	\$57,608	0.7	100.0
2042	\$8,806,861	\$924,720	\$59,336	\$0	\$59,336	0.7	100.0
2043	\$9,071,066	\$952,462	\$61,116	\$0	\$61,116	0.7	100.0
2044	\$9,343,198	\$981,036	\$62,949	\$0	\$62,949	0.7	100.0
2045	\$9,623,494	\$1,010,467	\$64,838	\$0	\$64,838	0.7	100.0

\* Calendar basis

\*\* Beginning of Fiscal Year

**GASB Statements No. 25 and No. 27**

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. Some of the required disclosure information is shown in Table VII.

**Table VII**

	<u>December 31, 2011</u>	<u>July 1, 2013</u>
(1) Actuarial Accrued Liability	\$29,421,723	\$30,167,669
(2) Actuarial Value of Assets	<u>5,486,573</u>	<u>5,544,658</u>
(3) Unfunded Actuarial Accrued Liability	23,935,150	24,623,011
(4) Funded Ratio (2)/(1)	18.6%	18.4%
(5) Covered Payroll	\$3,620,778	\$3,849,274
(6) UAAL as a percentage of payroll: (3)/(5)	661.0%	639.7%

**ANNUAL STATEMENT  
GASB 25 AND 27  
ACTUARIAL VALUATION AND ASSUMPTIONS**

The most recent actuarial valuation of the System was prepared by Sherman Actuarial Services as of July 1, 2013.

The normal cost for employees on that date was:	\$348,883	9.1% of pay
The normal cost for the employer was:	80,275	2.1% of pay
The actuarial liability for active members was:		\$5,931,021
The actuarial liability for retired and inactive members was:		24,236,648
Total actuarial accrued liability:		30,167,669
System assets as of that date:		5,544,658
Unfunded actuarial accrued liability:		\$24,623,011

The ratio of system's assets to total actuarial liability was 18.4%

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	7.75%
Rate of Salary Increase:	3.0%

**SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Actuarial Value of Assets  (a)	Actuarial Accrued Liability  (b)	Unfunded Actuarial Accrued Liability  (b-a)	Funded Ratio  (a/b)	Covered Payroll  (c)	UAAL as a percent of Covered Payroll  (b-a)/c
07/01/13	\$5,544,658	\$30,167,669	\$24,623,011	18.4%	\$3,849,274	639.7%
12/31/11	5,486,573	29,421,723	23,935,150	18.6%	3,620,778	661.0%
07/01/10	7,768,815	54,327,495	46,558,680	14.3%	3,289,330	1415.4%
07/01/08	12,002,382	50,739,300	38,736,918	23.7%	3,561,781	1087.6%
07/01/06	12,056,497	47,247,819	35,191,322	25.5%	3,439,867	1023.0%
07/01/04	11,298,856	43,225,235	31,926,379	26.1%	3,061,582	1042.8%
07/01/02	10,260,418	39,818,249	29,557,831	25.8%	2,701,836	1094.0%
07/01/98	7,857,460	34,304,806	26,447,346	22.9%	2,748,638	962.2%

Values prior to 2011 are a combination of the JH Pension Plan and the 1% Plan

## **EXHIBITS**

Age/Service Distribution with Salary as of July 1, 2013

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20		0	0	0	0	0	0	0	0	0	1
		0	0	0	0	0	0	0	0	0	42,094
20-24		1	7	1	0	0	0	0	0	0	10
		38,619	0	0	0	0	0	0	0	0	41,785
25-29		1	2	1	0	0	0	0	0	0	4
		48,668	48,668	0	0	0	0	0	0	0	48,668
30-34		0	2	0	0	0	1	0	0	0	3
		0	52,284	0	0	0	0	0	0	0	55,730
35-39		0	1	1	0	2	0	0	0	0	4
		0	50,168	52,284	0	0	0	0	0	0	51,755
40-44		0	2	1	0	1	0	0	0	0	4
		0	52,972	50,168	0	50,934	0	0	0	0	51,761
45-49		0	0	3	1	1	0	0	0	0	5
		0	0	52,445	50,168	50,168	0	0	0	0	51,534
50-54		0	0	6	2	1	0	0	0	0	9
		0	0	53,021	54,707	53,575	0	0	0	0	53,457
55-59		0	1	2	1	0	0	0	0	0	4
		0	56,339	54,562	52,784	0	0	0	0	0	54,562
60-64		0	0	0	1	0	0	0	0	0	1
		0	0	0	54,075	0	0	0	0	0	54,075
65-69		0	0	0	1	2	1	0	0	0	4
		0	0	0	54,159	54,117	57,720	0	0	0	55,028
70+		0	0	0	5	7	1	1	0	1	15
		0	0	0	58,138	49,143	51,168	54,159	0	51,168	52,745
Total Employees		2	15	15	11	14	3	1	0	1	64
Average Salary		43,644	27,624	45,802	55,572	43,351	36,296	54,159	0	51,168	81,275



## Retiree Distribution as of July 1, 2013

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	1	1	0	15,287	15,287
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	1	0	1	15,279	0	15,279
45-49	8	0	8	113,671	0	113,671
50-54	8	0	8	125,445	0	125,445
55-59	6	2	8	82,377	45,746	128,123
60-64	9	2	11	133,522	20,400	153,922
65-69	6	1	7	145,523	12,331	157,853
70-74	0	4	4	0	46,697	46,697
75-79	2	3	5	4,715	34,171	38,886
80-84	2	6	8	5,722	38,597	44,319
85-89	3	2	5	21,308	4,254	25,562
90-94	0	3	3	0	17,022	17,022
95+	0	0	0	0	0	0
<b>Total</b>	<b>45</b>	<b>24</b>	<b>69</b>	<b>647,562</b>	<b>234,505</b>	<b>882,068</b>
<b>Average (Age/Payment)</b>	<b>60.61</b>	<b>74.38</b>	<b>65.40</b>	<b>14,390</b>	<b>9,771</b>	<b>12,784</b>
<b>Frequency Percent</b>	<b>65.2</b>	<b>34.8</b>	<b>100</b>	<b>73.4</b>	<b>26.6</b>	<b>100</b>

## Disabled Retiree Distribution as of July 1, 2013

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	1	0	1	22,614	0	22,614
40-44	0	0	0	0	0	0
45-49	5	0	5	124,814	0	124,814
50-54	5	0	5	117,843	0	117,843
55-59	11	0	11	254,182	0	254,182
60-64	6	0	6	140,263	0	140,263
65-69	11	0	11	211,555	0	211,555
70-74	8	0	8	146,570	0	146,570
75-79	7	0	7	135,067	0	135,067
80-84	4	0	4	87,512	0	87,512
85-89	3	0	3	43,180	0	43,180
90-94	0	0	0	0	0	0
95-99	0	0	0	0	0	0
<b>Total</b>	<b>61</b>	<b>0</b>	<b>61</b>	<b>1,283,601</b>	<b>0</b>	<b>1,283,601</b>
<b>Average (Age/Payment)</b>	<b>65.3</b>	<b>0</b>	<b>65.3</b>	<b>21,043</b>	<b>0</b>	<b>21,043</b>
<b>Frequency Percent</b>	<b>100.0</b>	<b>-</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>	<b>100</b>

**EXHIBIT 4 - CASHFLOW FORECAST:**

The following is a 30 year forecast of benefit payments Contribution Income and Investment Returns.

Fiscal Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2014	\$2,223,020	\$348,883	\$1,979,828	\$447,501	\$553,192
2015	2,231,301	362,513	2,035,938	493,249	660,399
2016	2,245,319	376,648	2,093,634	547,186	772,149
2017	2,257,855	391,303	2,152,959	609,943	896,349
2018	2,268,469	406,500	2,213,958	682,504	1,034,493
2019	2,283,815	422,256	2,276,681	765,699	1,180,822
2020	2,321,128	438,591	2,341,174	859,513	1,318,150
2021	2,340,821	455,527	2,407,488	964,755	1,486,948
2022	2,362,793	473,084	2,475,673	1,083,111	1,669,076
2023	2,385,787	491,284	2,545,783	1,215,667	1,866,948
2024	2,409,383	510,151	2,617,871	1,363,662	2,082,301
2025	2,437,665	529,707	2,691,994	1,528,299	2,312,335
2026	2,464,274	549,978	2,768,207	1,710,963	2,564,874
2027	2,494,703	570,988	2,846,572	1,913,191	2,836,048
2028	2,551,538	592,764	2,927,146	2,135,575	3,103,947
2029	2,611,785	615,333	3,009,993	2,378,739	3,392,280
2030	2,672,272	638,722	3,095,176	2,644,393	3,706,018
2031	2,747,151	662,961	3,182,761	2,933,971	4,032,542
2032	2,815,609	688,079	3,272,815	3,249,261	4,394,547
2033	2,900,333	708,721	3,371,000	3,591,950	4,771,338
2034	2,987,607	729,983	46,840	3,833,650	1,622,866
2035	3,077,507	751,882	48,245	3,957,754	1,680,375
2036	3,170,112	774,439	49,693	4,086,264	1,740,284
2037	3,265,504	797,672	51,184	4,219,366	1,802,718
2038	3,363,766	821,602	52,719	4,357,254	1,867,809
2039	3,464,985	846,250	54,301	4,500,130	1,935,696
2040	3,569,250	871,638	55,930	4,648,211	2,006,529
2041	3,676,652	897,787	57,608	4,801,723	2,080,466
2042	3,787,286	924,720	59,336	4,960,905	2,157,675
2043	3,872,184	952,462	61,116	5,127,114	2,268,508

## **EXHIBIT 5 - SUMMARY OF PLAN PROVISIONS:**

This summary is prepared in accordance with Fire and Police union contracts as of July 1, 2013, and does not take into account any subsequent changes.

### **1. Administration**

The New Pension Plan is administered by the City of Central Falls.

### **2. Participation**

Participation is mandatory for all full-time employees whose employment.

### **3. Salary**

Salary is defined as regular compensation plus Holiday Pay and Longevity. Salary does not include bonuses, overtime, severance pay, unused sick leave credit or other similar compensation.

### **4. Member Contributions**

Member contributions vary depending upon date hired as follows:

<b><u>Date of Hire</u></b>	<b><u>Member Contribution Rate</u></b>
Up to November 23, 2011	9.5% of Salary
November 24, 2011 and Later	10.5% of Salary

### **5. Average Salary**

Average salary is used to determine a participant's benefit. It is defined as the average salary during the five consecutive-year period within the final 10 years of employment that produces the highest average.

### **6. Creditable Service**

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

**7. Service Retirement**

a. Eligibility:

Completion of 25 years of service

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times the Early Retirement Reduction Factor. At 25 years of credited service, the Benefit Rate is 50%. For each year after 25, up to 5 additional years, the Benefit Rate is increased 1%. The Early Retirement Reduction Factor based on the RP2000 Mortality Table and 7.5%. Factors at whole ages are shown in the following table:

<u>Age at Commencement</u>	<u>Factor</u>
57 or Over	1.000
56	.9120
55	.8327
54	.7613
53	.6967
52	.6382
51	.5852
50	.5370
49	.4932
48	.4533
47	.4169
46	.3836
45	.3532
44	.3254
43	.2999
42	.2766
41	.2551
40	.2354

## 8. Deferred Vested Retirement

### a. Eligibility:

A participant who has completed five or more years of creditable service is eligible for a deferred vested retirement benefit.

### b. Benefit Amount:

The participant's accrued benefit is based on 2% per year of credited service up to 25 years, plus 1% per year (up to 5 years) times the applicable Early Retirement Reduction Factor.

### b. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions with credited interest.

## 9. Accidental Disability

### a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

### b. Benefit Amount:

The accidental disability amount is 66 2/3rd% of annual salary.

## 10. Ordinary Disability

### a. Eligibility:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have five years of service.

### b. Benefit Amount:

The ordinary disability amount is based on 2% per year of credited service up to 25

years, plus 1% per year (up to 5 years) times the applicable Early Retirement Reduction Factor.

## **11. Survivor Benefits**

### **a. Occupational Death:**

The survivors of a firefighter who dies due to an occupational injury will be entitled to a one year's salary plus a one-year deferred pension benefit equal to 66 2/3rd% of the participant's annual Salary. The survivors of a police officer who dies due to an occupational injury will be entitled to a lump sum payment of \$10,000 plus a pension benefit equal to 66 2/3rd% of the participant's annual Salary.

### **b. Non-Occupational Death:**

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

## **12. Cost-of-Living Increases**

The amount of annual increase will be 2% of the November 23, 2011 pension amount for those receiving a pension benefit at that time, or the initial amount of pension amount for those commencing pension payments after November 23, 2011.

## **13. Postretirement Death Benefits**

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement.

## **EXHIBIT 6 - ACTUARIAL METHODS AND ASSUMPTIONS:**

The actuarial cost method, factors and assumptions used in determining cost estimates are presented below.

### **1. Member Data**

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired and disabled members of the employer as supplied by the employer to the actuary.

### **2. Valuation Date**

July 1, 2013.

### **3. Actuarial Cost Method**

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

### **4. Rate of Investment Return**

It is assumed that the assets of the fund will accumulate at a compound annual rate of 7.75% per annum.

### **5. Cost-of-Living Increases**

Cost-of-living increases have been assumed to be 2.0% per year without compounding.

### **6. Salary Scale**

The assumed annual rates for salary increases including longevity and holiday pay is 3%.

### **7. Value of Investments**

Assets held by the fund are valued at market value as reported by the City. The actuarial value of assets is equal to the market value.



**8. Annual Rate of Withdrawal Prior to Retirement**

Based on the Rhode Island MERS termination rates for Class B. The assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	<u>Rates</u>
0	0.1000
5	0.0354
10	0.0191
15	0.0090
20	0.0000

**9. Annual Rate of Mortality**

It is assumed that both pre-retirement and post retirement mortality are represented by the 2011 IRS Static Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Disabled Mortality Table.



**11. Annual Rate of Disability Prior to Retirement**

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following rates at the following ages:

<u>Attained Age</u>	
20	0.0010
30	0.0030
40	0.0030
50	0.0125

In addition, it is assumed for the 10% of all disabilities are assumed to be ordinary and 90% are service connected.

**12. Family Composition**

It is assumed that 80% of all male members and 60% of all female members will be survived by a spouse and that females (males) are three years younger (older) than members.

**13. Administrative Expenses**

No provisions are made for administrative expenses.

## **EXHIBIT 7 - GLOSSARY OF TERMS:**

This glossary summarizes the technical terms contained in this report.

### **1. Actuarial Accrued Liability**

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

### **2. Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting the Pension Plan such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

### **3. Actuarial Cost Method**

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

### **4. Actuarial Present Value**

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

### **5. Forecast**

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions and additional assumptions as to the replacement of terminating employees with new employees.

**6. Normal Cost**

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

**7. Unfunded Actuarial Accrued Liability**

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

**8. Valuation Method**

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

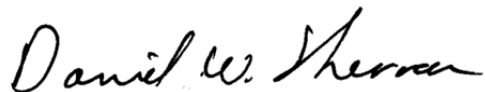
**9. Vested Liability**

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

## **CERTIFICATION:**

This report fairly represents the actuarial position of the Central Falls New Pension Plan contributing as of July 1, 2013, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, each actuarial assumption used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Sherman Actuarial Services, LLC



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Daniel W. Sherman, ASA, MAAA  
Enrolled Actuary No. 11-4086

December, 2013