

JULY 1, 2017
ACTUARIAL VALUATION OF
THE NEW PENSION PLAN
OF
THE CITY OF CENTRAL FALLS

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Report Summary:

<u>Highlights</u>	<u>July 1, 2016</u>	<u>July 1, 2017</u>
<u>Contributions</u>		
Funding Schedule FY 2018	\$2,488,889	\$2,513,311
Funding Schedule FY 2019	\$2,532,251	\$2,585,270
<u>Funded Ratios</u>		
GAS No. 25	24.2%	26.4%
<u>Participants</u>		
Actives	80	81
Retirees and Beneficiaries	66	64
Vested	0	0
Inactives	0	0
Disabled	<u>56</u>	<u>55</u>
Total	202	200
<u>Payroll</u>		
Payroll of Active Members	\$4,777,056	\$4,717,866
Average Payroll	59,713	58,245
<u>Normal Cost</u>		
Employer	166,400	156,426
Employee	438,329	426,679
Administrative Expenses	<u>0</u>	<u>0</u>
Total	604,729	583,105
<u>Actuarial Accrued Liabilities</u>		
Actives	8,590,815	10,176,603
Retirees, Beneficiaries, Disabilities and Inactives	<u>24,281,779</u>	<u>24,594,038</u>
Total	32,872,594	34,770,641
<u>Actuarial Value of Assets</u>	<u>7,945,248</u>	<u>9,170,268</u>
<u>Unfunded Actuarial Accrued Liabilities</u>	\$24,927,346	\$25,600,373

Introduction

The purpose of this report is to present the findings of an actuarial valuation as of July 1, 2017, of the Central Falls New Pension Plan for the purpose of funding the plan. Separate report was prepared for accounting and financial disclosure purposes.

The actuarial valuation is based on:

- Negotiated provisions with the Fire and Police unions as of July 1, 2017.
- Employee data provided by the City
- Asset information reported by the City of Central Falls

During the last twelve months, the total unfunded actuarial accrued liability increased by 2.7% to \$25,600,373. There was an actuarial loss of \$929,362. The mortality assumptions were changed to reflect to a more current table and assumptions are made on mortality improvements in the future. This increased the unfunded actuarial accrued liability by \$1,362,627. Sources of (gains) and losses are as follows:

	<u>(Gain) / Loss</u>
Assets	(190,380)
Salary Increases	(375,655)
New Participants	0
Active - Retirements	(37,804)
Active - Terminations	(105,093)
Active - Mortality	(25,807)
Active - Disabilities	(152,616)
Inactive - Mortality and data adjustments	92,964
Other and assumption changes	<u>1,723,753</u>
Total (Gain) / Loss	929,362

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>July 1, 2016</u>	<u>July 1, 2017</u>
Superannuation	\$362,514	\$340,303
Termination	20,391	22,416
Death	33,857	44,061
Disability	187,967	176,325
Administrative Expenses	<u>0</u>	<u>0</u>
Total Normal Cost	604,729	583,105
% of Pay	12.7%	12.4%
Employee Contributions	438,329	426,679
% of Pay	9.2%	9.0%
Employer Normal Cost	\$166,400	\$156,426
% of Pay	3.5%	3.3%

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>July 1, 2016</u>	<u>July 1, 2017</u>
Actives		
Superannuations	\$7,298,760	\$8,578,547
Termination	(89,813)	(107,634)
Death	135,584	234,096
Disability	1,246,284	1,471,594
Retirees and Inactives		
Retirees and Beneficiaries	11,657,475	10,838,875
Vested	0	0
Terminated (Refund)	0	0
Disabled	<u>12,624,304</u>	<u>13,755,163</u>
Total	\$32,872,594	\$34,770,641

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>July 1, 2016</u>	<u>July 1, 2017</u>
Actives		
Superannuation	10,882,714	\$11,868,284
Termination	112,311	112,990
Death	466,983	647,246
Disability	3,104,308	3,174,601
Retirees and Inactives		
Retirees and Beneficiaries	11,657,475	10,838,875
Vested	0	0
Terminated (Refund)	0	0
Disabled	<u>12,624,304</u>	<u>13,755,163</u>
Total	\$38,848,095	\$40,397,159

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>July 1, 2016</u>	<u>July 1, 2017</u>
Cash equivalents	\$0	\$0
John Hancock	214,933	0
Century	7,697,338	9,170,268
Accounts receivable	32,977	0
Accounts payable	0	0
Accrued income	<u>0</u>	<u>0</u>
Total Market Value	\$7,945,248	\$9,170,268
Total Actuarial Value	\$7,945,248	\$9,170,268

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>July 1, 2016</u>	<u>July 1, 2017</u>
Actuarial Accrued Liability	\$32,872,594	\$34,770,641
Actuarial Assets	<u>7,945,248</u>	<u>9,170,268</u>
Unfunded Actuarial Accrued Liability	\$24,927,346	\$25,600,373
Funded Status	24.2%	26.4%

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, 2032
 \$ 25,600,373 over 15 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>July 1, 2016</u>	<u>July 1, 2017</u>
Normal cost	\$166,400	\$156,426
Amortization payment of the unfunded accrued liability	<u>1,943,918</u>	<u>2,284,939</u>
Total cost	\$2,110,318	\$2,441,365
% of Pay	44.2%	51.7%
Fiscal 2018 cost	\$2,488,889	\$2,513,311
Fiscal 2019 cost	\$2,532,251	\$2,585,270

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 14 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents about 50% of payroll until the time the unfunded liabilities are fully paid off, leaving only a normal cost of 2.4% in 2033. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

Appropriation Forecast

Fiscal Year	Employee Payroll	Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Funded Ratio %*
2018	\$4,717,866	\$426,679	\$162,186	\$2,351,125	\$2,513,311	53.3	26.4
2019	\$4,859,402	\$442,798	\$163,611	\$2,421,659	\$2,585,270	53.2	29.7
2020	\$5,005,184	\$459,500	\$164,975	\$2,494,309	\$2,659,284	53.1	33.1
2021	\$5,155,340	\$476,806	\$166,274	\$2,569,138	\$2,735,412	53.1	36.8
2022	\$5,310,000	\$494,736	\$167,502	\$2,646,212	\$2,813,714	53.0	40.7
2023	\$5,469,300	\$513,314	\$168,655	\$2,725,598	\$2,894,253	52.9	44.8
2024	\$5,633,379	\$532,560	\$169,725	\$2,807,366	\$2,977,091	52.8	49.2
2025	\$5,802,380	\$552,500	\$170,709	\$2,891,587	\$3,062,296	52.8	53.8
2026	\$5,976,451	\$573,156	\$171,598	\$2,978,335	\$3,149,933	52.7	58.7
2027	\$6,155,745	\$594,555	\$172,387	\$3,067,685	\$3,240,072	52.6	63.8
2028	\$6,340,417	\$616,721	\$173,069	\$3,159,715	\$3,332,784	52.6	69.2
2029	\$6,530,630	\$639,683	\$173,637	\$3,254,507	\$3,428,144	52.5	74.8
2030	\$6,726,549	\$663,467	\$174,083	\$3,352,142	\$3,526,225	52.4	80.8
2031	\$6,928,345	\$688,103	\$174,400	\$3,452,706	\$3,627,106	52.4	87.0
2032	\$7,136,196	\$713,620	\$174,579	\$3,420,843	\$3,595,422	50.4	93.5
2033	\$7,350,282	\$735,028	\$179,817	\$0	\$179,817	2.4	100.0
2034	\$7,570,790	\$757,079	\$185,211	\$0	\$185,211	2.4	100.0
2035	\$7,797,914	\$779,791	\$190,767	\$0	\$190,767	2.4	100.0
2036	\$8,031,851	\$803,185	\$196,490	\$0	\$196,490	2.4	100.0
2037	\$8,272,807	\$827,281	\$202,385	\$0	\$202,385	2.4	100.0
2038	\$8,520,991	\$852,099	\$208,457	\$0	\$208,457	2.4	100.0
2039	\$8,776,621	\$877,662	\$214,710	\$0	\$214,710	2.4	100.0
2040	\$9,039,919	\$903,992	\$221,152	\$0	\$221,152	2.4	100.0
2041	\$9,311,117	\$931,112	\$227,786	\$0	\$227,786	2.4	100.0
2042	\$9,590,450	\$959,045	\$234,620	\$0	\$234,620	2.4	100.0
2043	\$9,878,164	\$987,816	\$241,658	\$0	\$241,658	2.4	100.0
2044	\$10,174,509	\$1,017,451	\$248,908	\$0	\$248,908	2.4	100.0
2045	\$10,479,744	\$1,047,974	\$256,375	\$0	\$256,375	2.4	100.0
2046	\$10,794,136	\$1,079,414	\$264,067	\$0	\$264,067	2.4	100.0
2047	\$11,117,960	\$1,111,796	\$271,989	\$0	\$271,989	2.4	100.0
2048	\$11,451,499	\$1,145,150	\$280,148	\$0	\$280,148	2.4	100.0
2049	\$11,795,044	\$1,179,504	\$288,553	\$0	\$288,553	2.4	100.0

* Beginning of Fiscal Year

EXHIBITS

Exhibit 1 - Age/Service Distribution with Salary as of July 1, 2017

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30+	Total
< 20	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
20-24	3	0	0	0	0	0	0	0	3
	44,883	0	0	0	0	0	0	0	44,883
25-29	8	4	0	0	0	0	0	0	12
	36,947	55,493	0	0	0	0	0	0	43,129
30-34	9	5	5	0	0	0	0	0	19
	45,646	56,532	58,826	0	0	0	0	0	51,979
35-39	2	1	7	0	0	0	0	0	10
	35,221	55,993	57,683	0	0	0	0	0	53,022
40-44	0	0	5	5	1	0	0	0	11
	0	0	60,908	64,995	67,509	0	0	0	63,365
45-49	1	2	3	8	1	1	0	0	16
	53,993	57,833	58,005	63,649	67,509	73,774	0	0	62,134
50-54	0	1	0	1	1	2	0	0	5
	0	57,846	0	56,493	69,144	79,492	0	0	68,493
55-59	0	0	0	1	1	2	0	0	4
	0	0	0	60,141	69,144	73,240	0	0	68,941
60-64	0	0	0	1	0	0	1	0	2
	0	0	0	56,493	0	0	69,144	0	62,819
65-69	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
Total Employees	23	13	20	16	4	5	1	82	
Average Salary	41,977	56,472	58,823	62,956	68,327	75,848	69,144	56,159	

Exhibit 2 - Retiree Distribution as of January 1, 2017

Attained Age	Number of Employees			Total Payments		
	Female	Male	Total	Female	Male	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	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	0	2	2	0	31,876	31,876
50-54	0	8	8	0	132,274	132,274
55-59	0	8	8	0	145,181	145,181
60-64	3	7	10	44,420	109,574	153,994
65-69	1	9	10	11,000	133,665	144,666
70-74	2	5	7	29,399	131,859	161,258
75-79	3	0	3	38,749	0	38,749
80-84	1	3	4	20,928	32,036	52,965
85-89	6	1	7	55,711	5,777	61,488
90-94	4	1	5	20,466	6,612	27,078
95+	0	0	0	0	0	0
Total	20	44	64	220,674	728,855	949,529
Average (Age/Payment)	80.79	63.35	68.80	11,034	16,565	14,836
Frequency Percent	31.3	68.8	100.0	23.2	76.8	100.0

Exhibit 3 - Disabled Retiree Distribution as of January 1, 2017

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	0	0	0	0	0	0
40-44	1	0	1	24,388	0	24,388
45-49	1	0	1	24,346	0	24,346
50-54	6	0	6	153,232	0	153,232
55-59	6	0	6	153,482	0	153,482
60-64	9	0	9	216,339	0	216,339
65-69	8	0	8	193,502	0	193,502
70-74	11	0	11	228,709	0	228,709
75-79	7	0	7	136,844	0	136,844
80-84	4	0	4	85,521	0	85,521
85-89	1	0	1	20,467	0	20,467
90-94	1	0	1	21,900	0	21,900
95-99	0	0	0	0	0	0
Total	55	0	55	1,258,730	0	1,258,730
Average (Age/Payment)	67.5	0.0	67.5	22,886	0	22,886
Frequency Percent	100.0	-	100.0	100.0	-	100.0

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
2018	\$2,260,858	\$426,679	\$2,513,311	\$729,067	\$1,408,199
2019	2,324,811	442,798	2,585,270	836,185	1,539,442
2020	2,383,859	459,500	2,659,284	953,447	1,688,371
2021	2,447,038	476,806	2,735,412	1,081,850	1,847,030
2022	2,497,556	494,736	2,813,714	1,222,745	2,033,639
2023	2,549,324	513,314	2,894,253	1,377,720	2,235,963
2024	2,596,244	532,560	2,977,091	1,548,184	2,461,591
2025	2,645,477	552,500	3,062,296	1,735,623	2,704,942
2026	2,716,633	573,156	3,149,933	1,940,650	2,947,106
2027	2,779,114	594,555	3,240,072	2,164,307	3,219,820
2028	2,853,588	616,721	3,332,784	2,408,127	3,504,045
2029	2,932,853	639,683	3,428,144	2,673,245	3,808,220
2030	3,025,553	663,467	3,526,225	2,960,844	4,124,983
2031	3,106,317	688,103	3,627,106	3,272,806	4,481,699
2032	3,205,579	713,620	3,595,422	3,606,025	4,709,489
2033	3,315,689	735,028	179,817	3,831,018	1,430,174
2034	3,412,027	757,079	185,211	3,936,586	1,466,849
2035	3,499,116	779,791	190,767	4,045,302	1,516,743
2036	3,590,489	803,185	196,490	4,157,658	1,566,845
2037	3,705,539	827,281	202,385	4,272,959	1,597,086
2038	3,824,276	852,099	208,457	4,390,453	1,626,732
2039	3,946,818	877,662	214,710	4,510,094	1,655,647
2040	4,073,287	903,992	221,152	4,631,822	1,683,679
2041	4,203,808	931,112	227,786	4,755,570	1,710,661
2042	4,338,511	959,045	234,620	4,881,256	1,736,410
2043	4,477,531	987,816	241,658	5,008,785	1,760,729
2044	4,621,005	1,017,451	248,908	5,138,046	1,783,400
2045	4,769,077	1,047,974	256,375	5,268,914	1,804,186
2046	4,921,893	1,079,414	264,067	5,401,241	1,822,829
2047	5,032,225	1,111,796	271,989	5,536,611	1,888,171

EXHIBIT 5 - SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Fire and Police union contracts as of July 1, 2017, 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:

<u>Date of Hire</u>	<u>Member Contribution Rate</u>
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, 2017.

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 7.5% per annum, net of investment management fees.

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 SOA RP-2014 Adjusted to 2006 Blue Collar Mortality with improvements under scale MP-2016 for males and females. Mortality for disabled members is represented by the SOA RP-2014 Adjusted to 2006 Disabled Retiree Mortality with mortality improvements under MP-2016.

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.

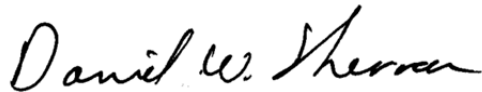
9. Vested Liability

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, 2017, 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



Daniel W. Sherman

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January, 2018