Milliman

City of Fort Collins
General Employees' Retirement Plan

January 1, 2016 Actuarial Valuation

Prepared by:

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March 11, 2016

Retirement Committee Members
City of Fort Collins
215 North Mason Street
Fort Collins, Colorado 80522

Re: City of Fort Collins General Employees' Retirement Plan - 2016 Actuary's Report

Dear Retirement Committee Members:

As requested, we performed an actuarial valuation of the City of Fort Collins General Employees' Retirement Plan as of January 1, 2016, for the plan year ending December 31, 2016. Our findings are set forth in this actuary's report. This report reflects the benefit provisions in effect as of January 1, 2016.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by City staff. This information includes, but is not limited to, plan provisions, participant census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Plan. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the Plan.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: 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. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Retirement Committee has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in the February 2016 meeting.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Plan. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Plan's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in Appendix B of this report. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the use and benefit of the City of Fort Collins General Employees' Retirement Plan ("Plan"). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

(a) The Plan may provide a copy of Milliman's work, in its entirety, to the Plan's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The Plan may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuary is independent of the Plan Sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

Joel E. Stewart

Katie Antoline

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Consulting Actuary

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EXECUTIVE SUMMARY

This is a report of our actuarial valuation of the Plan as of January 1, 2016. A summary of our valuation results follows:

1. *Overview of Results*

The following table summarizes some of the key results of our valuation of the Plan, along with the comparable figures from the prior year valuation.

	January 1, 2016	January 1, 2015
Market Value of Assets (MV)	$ 43,050,288	$ 45,722,416
Return on MV of Assets (Prior Year)	-0.6%	6.0%
Discount Rate for Liabilities	6.50%	6.50%
Present Value of Future Benefits	$ 59,860,251	$ 60,112,124
Present Value of Future Normal Costs	1,945,262	2,315,819
Actuarial Liability (AL)	$ 57,914,989	$ 57,796,305
Funded Ratio (MV / AL)	74.33%	79.11%
Unfunded Actuarial Liability (AL - MV)	$ 14,864,701	$ 12,073,889
GASB 67/68 Disclosure Information	**December 31, 2015**	**December 31, 2014**
Discount Rate for Liabilities	6.50%	6.50%
Total Pension Liability (TPL)	$ 57,914,989	$ 57,796,305
Fiduciary Net Position (FNP)	$ 43,050,288	$ 45,722,416
Net Pension Liability (NPL)	$ 14,864,701	$ 12,073,889
FNP as a % of TPL	74.33%	79.11%

2. *Analyze recent plan experience and select appropriate actuarial assumptions.*

To value the Plan, the actuary must predict future events such as investment return, mortality, and rates of termination and retirement by means of "actuarial assumptions." The validity of our valuation depends on how closely future Plan experience follows assumption. Experience different from that assumed gives rise to actuarial gains or losses, which affect future costs.

The actuarial assumptions used in this valuation are stated in Appendix A. The following comments address some of the more important assumptions.

a. *Rate of investment return*

One of the most important assumptions in an actuarial valuation is the investment return assumption, which represents the expected long-term rate of return on plan assets.

Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, provides guidance to actuaries on selecting assumptions for measuring obligations under defined benefit pension plans. Because no one knows what the future holds, the best an actuary can do is to use professional judgment to estimate possible future economic outcomes. These estimates are based on a mixture of past experience, future expectations, and professional judgment. The actuary should consider a number of factors, including the purpose and nature of the measurement, and appropriate recent and long-term historical economic data. However, the standard explicitly advises the actuary not to give undue weight to recent experience.

Recognizing that there is not one “right answer”, the standard lays out a general selection process, and then calls for the actuary to select a reasonable assumption. Each economic assumption should individually satisfy this standard. Furthermore, with respect to any particular valuation, each economic assumption should be consistent with every other economic assumption over the measurement period.

Milliman’s investment practice has developed a model of expected real returns for various asset classes based on their capital market assumptions. Utilizing this model at December 31, 2015, an inflation assumption of 2.5%, the Plan’s current asset allocation and a 20-year time horizon produces a geometric mean return of 6.26%. The current assumption of 6.50% represents the 53rd percentile of projected annualized 20-year returns.

b. *Withdrawal and retirement rates*

Withdrawal rates

The actual number of participants leaving employment during 2014 prior to retirement is one, compared to one expected to terminate in 2015. Withdrawal experience has been adjusted for terminations that had reached retirement eligibility but not yet commenced, and is summarized in the following table for the last five years:

	2011	2012	2013	2014	2015	Total
Actual	4	1	1	0	1	7
Expected	2	1	1	1	1	6
A/E						117%

We are not recommending any changes at this time for withdrawal, but will continue to monitor this assumption in the future to determine whether any changes are warranted.

Retirement rates

Seventeen active participants actually retired during 2015, compared to twelve expected to retire in 2015. Retirement experience from the past four years, adjusted for terminations that had reached retirement eligibility but not yet commenced, is summarized in the following table:

	2012	2013	2014	2015	Total
Actual	13	11	15	17	56
Expected	10	11	11	12	44
A/E	130%	100%	136%	142%	127%

The retirement assumption was updated with the January 1, 2012 actuarial valuation. We are not recommending any changes at this time for retirement, but will continue to monitor this assumption in the future.

c. *Salary increase assumption*

The assumed rate of future salary increases used for the valuation of the Plan is a graded table based on age, as shown in Appendix A, which anticipated average salary increases during 2015 of 3.9%. Average salary increases for those participants continuing in covered employment was 2.9%, with the median salary increase from 2015 to 2016 of 2.3%, based on a comparison of actual compensation rates for 2015 and 2016. Although the actual increases for the last few years have been lower than expected, we do not recommend a change at this time, as current economic conditions including inflation and real-wage growth lower than the long-term assumption of 3.5% may have influenced the short-term results. Based on various sources of long-term future expectations we believe the current inflation assumption of 2.5% and real-wage growth assumption of 1.0% remain reasonable. We will continue to monitor this experience.

d. *Form of payment assumption*

It is assumed that 30% of participants retiring from active status will elect a lump sum. Analysis of lump sum elections over the last five years produces the following.

	2011	2012	2013	2014	2015	Total
Lump sums	2	2	4	2	3	13
Total exits	10	13	11	15	17	66
% taking a lump sum						20%

The Retirement Committee has adopted the use of the assumptions for the January 1, 2016 actuarial valuation at their February 2016 meeting.

3. *Review the financial effect of experience gains and losses and changes in plan benefits.*

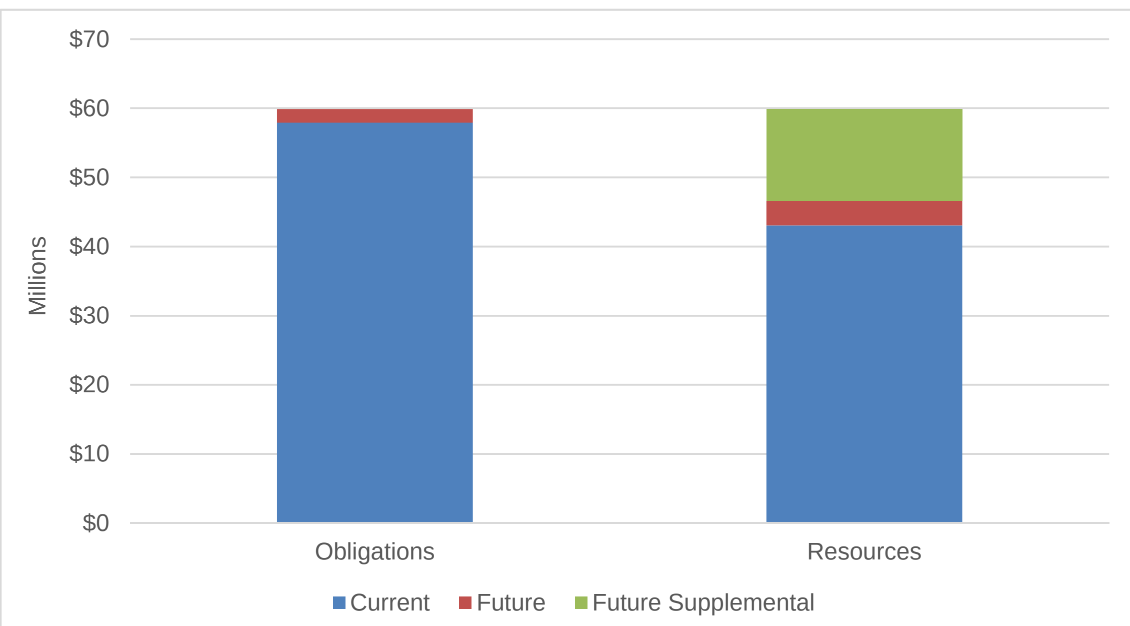
Under the entry age normal cost method, an explicit actuarial liability is calculated, and is compared to the actuarial value of assets in order to determine the unfunded actuarial liability (UAL). Actuarial gains and losses on the unfunded actuarial liability can then be measured. The UAL is expected to increase by the normal cost and for interest due to the passage of time each year and is reduced by the amount of contributions made to the Plan. The following table summarizes the change in the UAL during 2015.

Actual UAL, January 1, 2015:	$ 12,073,889
Expected changes during 2015:	(603,787)
Expected UAL, January 1, 2016:	$ 11,470,102
Changes:	
Asset (gain) or loss	$ 3,169,846
Salary changes different than assumed	(114,595)
Pensioner mortality	33,660
Retirement and other Terminations	236,880
Other demographic (gains)/losses	68,808
Total	$ 3,394,599
Actual UAL, January 1, 2016:	$ 14,864,701

4. *Funding Analysis*

The City's current funding policy is to contribute 10.5% of compensation for active plan participants, plus a supplemental contribution necessary for the Plan to remain solvent. The supplemental contribution is currently budgeted at $1.12 million per year.

The following chart compares the obligations of the Plan to the resources available to pay those obligations. The obligations of the Plan are equal to the present value of all benefits projected to be accrued for all current participants through their anticipated termination date. This includes the present value of benefits attributable to service already completed as of the valuation date ("Current"), also known as the Actuarial Liability, as well as the amounts attributable to projected future service for current active participants ("Future"). The resources of the Plan include the value of the assets set aside to pay for the benefits ("Current"), plus the present value of the future expected contributions for participants in the Plan as of the valuation date ("Future") equal to 10.5% of projected future compensation plus the supplemental contribution of $1.12 million per year.



The present value of future benefits is $59.9 million, versus the current market value of assets of $43.1 million and the present value of future payroll contributions of $3.5 million. The shortfall of approximately $13.3 million is anticipated to be funded through the supplemental contribution. This represents approximately 22 years of the $1.12 million supplemental contribution as of the actuarial valuation date.

If all future experience follows assumptions, there are no changes to assumptions, plan provisions or funding policy, and the policy contributions (including the supplemental contribution) are made each year, the Plan's funded status should improve. In addition, the declining active participant population should result in declining contributions as the compensation base declines.

Highlights of the 2015 plan year

- There were 420 members reported on January 1, 2016, 95 of whom were active members who continue to accrue benefits under the Plan. The remaining 325 were inactive members retaining benefits under the Plan.
- The Plan assets returned -0.6% during the 2015 plan year on a market value basis. The average annual return over the last 22 years is 6.1%. The assumed return for the 2015 plan year was 6.5%.
- At the end of 2015, the market value of assets was $43,050,288.
- As of January 1, 2016, the ratio of the market value of assets to the actuarial liability was 74.33%.

VALUATION RESULTS

TABLE 1
STATEMENT OF MARKET VALUE OF ASSETS

	December 31, 2015	December 31, 2014
CASH AND CASH EQUIVALENTS	$ 1,041,214	$ 812,283
INVESTMENTS		
US Government Securities	$ 12,061,037	$ 8,123,603
Corporate Bonds	5,220	4,564,267
Mutual Funds	29,905,947	32,168,850
Total	$ 41,972,204	$ 44,856,720
RECEIVABLES		
Employer Contributions	$ 0	$ 0
Accrued Interest and Dividends	37,126	53,778
Total	$ 37,126	$ 53,778
LIABILITIES		
Expenses and Benefits Payable	$ 256	$ 365
Investment Transaction	0	0
Total	$ 256	$ 365
TOTAL MARKET VALUE OF ASSETS	$ 43,050,288	$ 45,722,416

TABLE 2
CHANGE IN MARKET VALUE OF ASSETS

	2015	2014
Market value at end of prior year	$ 45,722,416	$ 44,692,556
Adjustment	0	22,281
Market value at beginning of year	$ 45,722,416	$ 44,714,837
Income:		
Contributions	$ 1,830,265	$ 1,905,906
Interest Income	105,415	155,242
Net appreciation/(depreciation)	(379,998)	2,475,085
Total	$ 1,555,682	$ 4,536,233
Disbursements:		
Benefit payments:		
Periodic Payments	$ 2,766,627	$ 2,465,018
Lump Sum Distributions	1,438,477	1,044,701
Expenses	22,706	18,935
Total	$ 4,227,810	$ 3,528,654
Net income:	$ (2,672,128)	$ 1,007,579
Market value at end of year	$ 43,050,288	$ 45,722,416

TABLE 3
INVESTMENT RETURN

Annual Rate of Investment Return

For One-Year Period		For Period Ending December 31, 2015	
Ending December 31	Annual Rate	Period	Average Annual Rate
2015	-0.6%	1 year	-0.6%
2014	6.0	2 years	2.6
2013	18.7	3 years	7.7
2012	11.6	4 years	8.7
2011	-3.1	5 years	6.2
2010	11.1	6 years	7.0
2009	20.5	7 years	8.9
2008	-26.5	8 years	3.6
2007	12.2	9 years	4.6
2006	13.6	10 years	5.4
2005	8.5	11 years	5.7
2004	9.5	12 years	6.0
2003	18.8	13 years	6.9
2002	-9.3	14 years	5.7
2001	-4.0	15 years	5.0
2000	-3.5	16 years	4.5
1999	21.1	17 years	5.4
1998	8.8	18 years	5.6
1997	10.5	19 years	5.8
1996	10.1	20 years	6.0
1995	13.8	21 years	6.4
1994	-0.2	22 years	6.1

* Rates of return for 1999 and earlier as reported by the prior actuary and used without audit.

** Rates of return for 2013 and earlier are net of all expenses. Rate of return for 2015 and 2014 is net of investment expenses only.

TABLE 4
ACTUARIAL BALANCE SHEET
AS OF JANUARY 1, 2016

The following table contains information on the actuarial balance sheet: the Plan's resources and requirements. The Plan requirements consist of the actuarial present value of projected plan benefits as of the valuation date. Plan resources consist of plan assets, projected future normal costs and the Plan's unfunded actuarial liability.

REQUIREMENTS

Present Value of Projected Benefits		
Retired Participants		$ 29,416,757
Vested Inactive Participants		8,310,826
Active Participants		
Retirement	$ 20,169,695	
Vested Withdrawal	244,343	
Death	210,382	
Disability	1,508,248	
Total Active		22,132,668
Total Present Value of Projected Benefits		$ 59,860,251

RESOURCES

Market Value of Assets	$ 43,050,288
Present Value of Future Normal Costs	1,945,262
Unfunded Actuarial Liability	14,864,701
Total	$ 59,860,251

TABLE 5
UNFUNDED ACTUARIAL LIABILITY

Actuarial Liability as of January 1, 2016		
Retired Participants and Beneficiaries		$ 29,416,757
Vested Inactive Participants		8,310,826
Active Participants		20,187,406
Total		$ 57,914,989
Market Value of Assets		$ 43,050,288
Unfunded Actuarial Liability as of January 1, 2016		$ 14,864,701
Expected Unfunded Actuarial Liability on January 1, 2016		
Unfunded Actuarial Liability as of January 1, 2015		$ 12,073,889
Normal Cost		447,690
Employer Contributions		(1,830,265)
Administrative Expenses		22,706
Interest		756,082
Expected, January 1, 2016		$ 11,470,102
Changes		
Experience (Gain)/Loss		
Asset (Gain)/Loss	3,169,846	
Salary (Gain)/Loss	(114,595)	
Retirement and Withdrawal (Gain)/Loss	236,880	
Pensioner Mortality (Gain)/Loss	33,660	
Other Demographic	68,808	
Total Experience (Gain)/Loss		3,394,599
Assumption Change		0
Plan Changes		0
Unfunded Actuarial Liability on January 1, 2016		$ 14,864,701

TABLE 6
FUNDING ANALYSIS

The current annual budgeted contribution is 10.5% of payroll, plus an additional supplemental contribution of $1,120,000 per year while the Plan is underfunded. Annual costs of the Plan include the value of benefit accrual allocated to the current year (normal cost) plus a payment towards the Unfunded Actuarial Liability, and includes a provision for administrative expenses paid out of plan assets. The following table shows the development of the anticipated number of years of supplemental contribution necessary to pay off the UAL based on the current annual valuation, if all future experience follows assumptions, there are no changes to assumptions, plan provisions or funding policy, and the policy contributions (including the supplemental contribution) are made each year.

Annual Cost	
1. Entry Age Normal Cost	$ 383,757
2. Anticipated Administrative Expenses	20,886
3. Total Annual Cost: 1. + 2.	404,643
4. Total Payroll	$ 6,191,383
5. Annual Cost as a Percentage of Payroll: 3. ÷ 4.	6.54%
Percent of Payroll Contribution	
6. Percent of Payroll Contribution Rate	10.50%
7. Present Value of Future Salary	$ 33,505,031
8. Present Value of Future Payroll Contributions: 6. x 7.	$ 3,518,028
9. Present Value of Future Normal Costs	1,945,262
10. Present Value of Payroll Contributions in excess of Normal Cost, available to fund UAL: 8. - 9.	$ 1,572,766
Unfunded Actuarial Liability (UAL)	
11. UAL at January 1, 2016	$ 14,864,701
12. Present Value of Payroll Contributions in excess of Normal Cost, available to fund UAL: Line 10. above	1,572,766
13. Net UAL to be funded by Supplemental Contributions: 11. - 12.	$ 13,291,935
Supplemental Contribution	
14. Budgeted Annual Supplemental Contribution	$ 1,120,000
15. Anticipated Annual Administrative Expenses	20,886
16. Net Annual Supplemental Contribution to fund UAL: 14. - 15.	$ 1,099,114
Number of Years of Supplemental Contribution (as a Flat Dollar Amount) Necessary to Fund UAL	22

TABLE 7
HISTORICAL STATISTICS

	2016	2015	2014	2013	2012	2011	2010
Assets							
Market Value of Assets	$ 43,050,288	$ 45,722,416	$ 44,692,556	$ 39,489,447	$ 37,015,380	$ 39,355,910	$ 37,302,262
Market Value Return	(0.6)%	6.0%	18.7%	11.6%	(3.1)%	11.1%	20.5%
Present Value of Projected Benefits							
For retirees and beneficiaries	$ 29,416,757	$ 25,057,100	$ 21,608,789	$ 18,850,712	$ 16,058,012	$ 15,459,723	$ 15,544,671
For terminated vested participants	8,310,826	8,522,860	8,473,138	9,217,906	9,568,212	7,704,312	4,286,911
For active participants	22,132,668	26,532,164	28,678,500	29,279,641	31,223,732	28,839,842	33,569,162
Total	$ 59,860,251	$ 60,112,124	$ 58,760,427	$ 57,348,259	$ 56,849,956	$ 52,003,877	$ 53,400,744
Actuarial Liability	$ 57,914,989	$ 57,796,305	$ 56,182,808	$ 54,682,992	$ 53,813,281	$ 49,651,276	$ 50,300,314
Participant Statistics							
Retired Participants							
Number	222	205	190	185	171	170	171
Average Monthly Benefits	$ 1,124	$ 1,060	$ 1,009	$ 927	$ 863	$ 870	$ 863
Vested Inactive Participants							
Number	103	113	121	129	136	135	114
Average Monthly Benefits	$ 857	$ 838	$ 810	$ 861	$ 867	$ 816	$ 615
Active Participants							
Number of Participants	95	113	128	140	155	169	212
Average Compensation	$ 65,172	$ 64,661	$ 64,085	$ 63,104	$ 61,821	$ 61,534	$ 60,838
Average Years of Service	25.9	25.7	25.3	24.7	24.2	23.0	22.1
Average Age	59.3	59.0	58.6	57.9	57.5	56.8	56.1
Actuarial Assumptions							
Interest	6.50%	6.50%	6.50%	6.80%	6.80%	7.50%	7.50%
Salary Growth	Table	Table	Table	Table	Table	Table	Table
Mortality Table Utilized	RP-2000; Proj. Generationally	RP-2000; Proj. Generationally	RP-2000; Proj. 2021	RP-2000; Proj. 2021	RP-2000; Proj. 2021	RP-2000; Proj. 2021	94GAM

TABLE 8
TWENTY-YEAR PROJECTION OF BENEFIT PAYMENTS

The following table provides a projection of benefit payments over the next twenty years. This can be useful for the investment manager in planning future liquidity requirements.

Plan Year	Estimated Annual Benefit Payments
2016	3,973,000
2017	4,282,000
2018	4,390,000
2019	4,621,000
2020	4,644,000
2021	4,886,000
2022	4,901,000
2023	5,065,000
2024	4,963,000
2025	4,984,000
2026	4,862,000
2027	4,950,000
2028	4,802,000
2029	4,742,000
2030	4,546,000
2031	4,496,000
2032	4,386,000
2033	4,230,000
2034	3,987,000
2035	3,811,000

APPENDIX A
ACTUARIAL PROCEDURES AND ASSUMPTIONS

The actuarial assumptions used in the valuation are intended to estimate future experience affecting projected benefit flow and investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the plan's benefits.

The tables in this section give rates of decrement, referred to in actuarial notation by the general symbol "q'." The underlying theory is described more fully in Jordan, *Life Contingencies*, Society of Actuaries (Second Edition, 1967), page 277. Any age referred to in a table is always the age of the person at his or her nearest birthday.

Actuarial Cost Method

The actuarial cost method we use to calculate the funding requirements of the Plan is called the *entry age normal cost method*.

Under this cost method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age. The portion of the actuarial present value of the projected benefits allocated to all service prior to the valuation date is called the Actuarial Liability. The portion of this actuarial present value of projected benefits allocated to a valuation year is called the Normal Cost.

Asset Valuation Method

The actuarial value of assets is equal to the market value.

Investment Earnings

6.50% per annum, compounded annually net of investment-related expenses.

COLA

None.

Wage Increase

3.50%

Earnings Progression

Annual salary increases are based on a table graded by age, as displayed below:

Age	Percentage Increase at Age			
	Inflation	Productivity	Merit	Total
35	2.5%	1.0%	1.0%	4.5%
40	2.5	1.0	1.0	4.5
45	2.5	1.0	0.8	4.3
50	2.5	1.0	0.7	4.2
55	2.5	1.0	0.5	4.0
60	2.5	1.0	0.2	3.7
65+	2.5	1.0	0.1	3.6

Retirement

The following table sets forth the probability of retirement according to age.

Age	Probability of Retirement
55	2%
56	2
57	2
58	2
59	2
60	2
61	2
62	10
63	10
64	10
65	40
66	40
67	30
68	30
69 & Over	100

Deferred Vested participants were assumed to retire at age 65.

Disablement

Graduated rates are used. See table below for sample rates.

Withdrawal Rates

Graduated rates are used. Sample rates are as follows:

Age at Termination	Withdrawal		Disability
	Male	Female	
35	8.58%	9.53%	0.19%
45	3.88	5.23	0.44
55	2.00	3.29	1.19
60	1.50	2.15	1.80

Mortality

Healthy Lives, Pre-retirement – RP-2000 Healthy Non-Annuitant Mortality Table projected generationally using Scale AA

Healthy Lives, Post-retirement – RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA

Disabled Lives – RP-2000 Healthy Non-Annuitant and Annuitant Mortality Table set forward 3 years and projected generationally using Scale AA

Expenses

The average of the prior three year's expenses:

Year	Expenses
2015	$ 22,706
2014	18,935
2013	21,016
Total	$ 62,657
Average	$ 20,886

Marriage Rates

85% of all active and terminated participants not currently receiving benefits are assumed to be married. Male spouses are assumed to be three years older than their female spouses.

Future Credited Service

The Future Credited Service rate is equal to the member's Full Time Equivalent (FTE) rate as of December 31 preceding the current valuation year.

Form of Payment

30% of participants retiring from active service are assumed to elect a lump sum.

Changes in Actuarial Assumptions and Methods as of January 1, 2016

The asset valuation method was updated from a smoothing method to the market value of assets.

APPENDIX B
PLAN SUMMARY

All actuarial calculations are based upon our understanding of the provisions of City of Fort Collins General Employees' Retirement Plan, as adopted and in effect on January 1, 2016. This summary does not attempt to cover all of the detailed provisions.

Plan Year

The Plan Year is the 12-month period beginning January 1 and ending December 31.

Effective Date

The original effective date of the Plan is January 1, 1971. The Plan was most recently amended and restated effective January 1, 2016.

Eligible Employee Classification

All persons employed to fill a classified position defined by the city, excluding police officers and firefighters, shall become a member of the Plan on the later of the Effective Date of the Plan or Date of Hire.

The Plan was frozen to new entrants as of January 1, 1999.

Accrued Benefit

The Accrued Benefit for each Member is the Member's Normal Retirement Benefit calculated using Average Monthly Compensation and Credited Service as of the calculation date. In no event will a Member's Accrued Benefit be less than the Accrued Benefit earned as of June 30, 2003.

Average Monthly Compensation

A Member's Average Monthly Compensation, as of a given date, is the average of the highest 60 consecutive months of considered compensation during the last 120 months of Credited Service. In the event that a participant was employed on a part time basis during any portion of this period, the compensation will be converted to a full time equivalent for purposes of calculating the Average Monthly Compensation.

Compensation

Compensation is the gross compensation included as taxable income on Form W-2, excluding bonuses, compensatory time recorded as additional hours, overtime pay, workers' compensation accrued vacation pay, taxable fringe benefits, but including any amounts contributed by the City to a salary reduction agreement including Code Sections 125, 132(f)(4), 402(a)(8), 403(b), 402(a), and 457.

Credited Service

A Year of Service is credited for each plan year a member works 2,080 hours. If the member works less than 2,080 hours, a partial Year of Service will be credited on a prorate basis based on the number of hours for which compensation is paid. Service is credited while a member is on long-term disability as long as no benefits are being paid from the Plan.

Vested Accrued Benefit

A Participant's Vested Accrued Benefit as of a given date is equal to the product of his Accrued Benefit multiplied by his Vested Percentage as of that same date.

Vesting Schedule

Members become vested in their Accrued Benefit according to the following schedule:

Years of Credited Service	Percent Vested
Less than 2	0%
2	40%
3	60%
4	80%
5 and over	100%

Normal Retirement Date

A Participant's Normal Retirement Age is the first of the month coincident with or next following the attainment of age 65.

Normal Retirement Benefits

Each Member who becomes eligible for a Normal Retirement Benefit under the Plan will be entitled to receive a monthly retirement pension benefit beginning at the Member's Normal Retirement Date and payable in the Normal Benefit Form equal to:

- 1.5% of Average Monthly Compensation, multiplied by Credited Service.

Normal Benefit Form

Life Annuity - Monthly pension benefit payable for the lifetime of the Member.

Early Retirement

(a) Early Retirement Date

A Member's Early Retirement Date is the first day of the month so elected by the Member which coincides with or next follows the date upon which the Member attains age 55 and completes 2 Years of Service.

(b) Early Retirement Benefit

A Member's Early Retirement Benefit is a monthly pension benefit equal to his Accrued Benefit determined as of his Early Retirement Date, reduced by 1/15th for the first 5 years and 1/30th for each of the next 5 years payments commence prior to age 65.

Optional Benefit Forms

Optional Benefit Forms are available and equal to the Actuarial Equivalent of the Normal Benefit Form and may be in an amount more than or less than that provided by the Normal Benefit Form depending on the option selected. Such distribution may be as a Joint & 50% or 100% Survivor Annuity, a Life Annuity with 120 payments guaranteed, or a Lump Sum.

Pre-Retirement Death Benefit

If a Member dies prior to commencing pension payments, the Member's beneficiary will receive a single sum benefit in an amount equal to 47% of the actuarial equivalent value of the Member's Accrued Benefit. If the beneficiary is the Member's spouse, the spouse may elect a monthly benefit which is the actuarial equivalent of the single sum benefit. (The 47% factor is stated in the Plan Document Article XI, Section 11. It was developed assuming that the participant quit the day prior to death and elected a 50% joint and survivor benefit.)

Termination Benefit

In the event of the termination of a Member's employment for any reason other than death, disability or retirement after completing 2 Years of Service, the Member will become entitled to receive a monthly pension benefit commencing on his Normal Retirement Date equal to his Vested Accrued Benefit.

If the deferred benefit to which the Member is to be paid at his Normal Retirement Date has an actuarial equivalent value less than $5,000, the entire benefit will be paid to the terminated participant as a single lump sum.

Disability Benefit

(a) Total Disability

The monthly benefit, payable for life commencing at normal retirement date, is equal to the normal retirement benefit considering annual rate of compensation at disability and credited service he would have accumulated if employment had continued uninterrupted to his normal retirement date.

(b) Permanent Partial Disability

A member may accrue Credited Service under the Plan for any period of time up to a maximum accrual of two (2) years.

Instead of the disability benefit described above, the disabled participant may elect to take a lump-sum distribution at any time.

City Contributions

The entire cost of the Plan is to be paid by the City.

Plan Changes

None

APPENDIX C
PARTICIPANT DATA

The actuarial valuation of the Plan is based on the participant data provided to us by the City. The data includes active participants, terminated vested participants who retain benefits under the Plan, and retirees and beneficiaries receiving benefits as of January 1, 2016. A total of 420 participants were reported to us and included in this valuation. Table 1 includes a reconciliation of the participant data from January 1, 2015 to January 1, 2016.

The age and service characteristics of the 95 active participants in the Plan as of January 1, 2016 are shown in Table 2. As indicated in Table 2, the average age of the active participants on the valuation date was 59.3, an increase from the average age of 59.0 of the active participants on January 1, 2015. The average years of service of the active participants on January 1, 2016 was 25.9, up from the 25.7 average years of service of the active participants on January 1, 2015.

In addition to the active members, there were 103 inactive participants not yet in pay status retaining benefits under the Plan. Table 3 contains a summary of the number of inactive participants not yet in pay status but retaining benefits under the Plan, and the amounts of those benefits.

Tables 4 and 5 summarize the information provided on the 222 members and beneficiaries who are currently receiving monthly benefits. Table 4 contains a summary of the number of participants receiving benefits and the amounts of those benefits, while Table 5 lists the benefits being paid as of January 1 of each year from 1986 to 2015. Counts and total annual benefit amounts are separated by status and sex.

Table 6 displays the list of the retirement dates and status of participants eligible for normal or delayed retirement in the next five years.

Because participation in the Plan was frozen as of January 1, 1999, the number of participants in the Plan has declined over the years, as illustrated below:

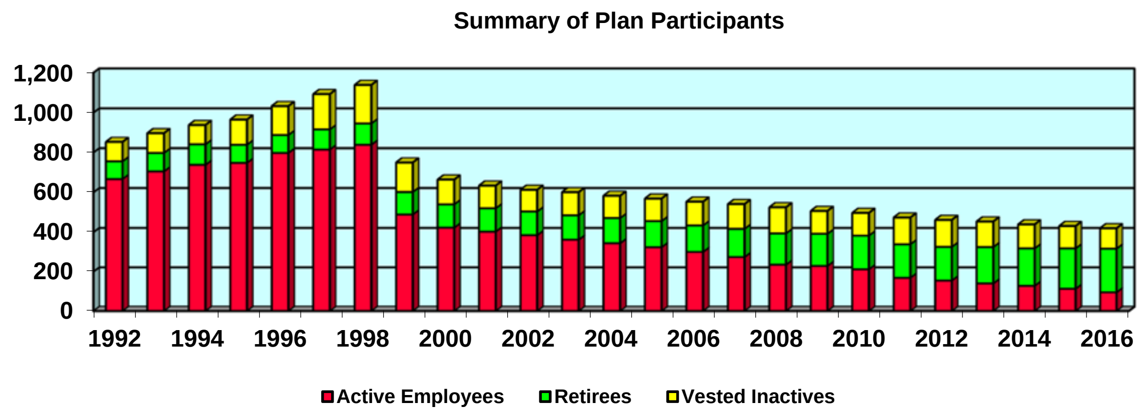


TABLE C-1
RECONCILIATION OF PARTICIPANT DATA
(JANUARY 1, 2015 TO JANUARY 1, 2016)

	Actives	Terminated Vested	Retired	Beneficiary	Total
Included in January 1, 2015 Valuation:	113	113	184	21	431
Change due to:					
New entrants	N/A	N/A	N/A	N/A	N/A
Rehired	0	0	0	N/A	0
Termination					
Nonvested	0	N/A	N/A	N/A	0
Vested	(2)	2	N/A	N/A	0
Retirement	(13)	(7)	20	0	0
Disabled	0	0	0	0	0
Death no Beneficiary	0	0	(2)	(2)	(4)
Death with Beneficiary	0	0	(4)	4	0
Cash out	(3)	(5)	0	0	(8)
Other	0	0	0	1	1
Net change	(18)	(10)	14	3	(11)
Included in January 1, 2016 Valuation:	95	103	198	24	420

TABLE C-2
SUMMARY OF ACTIVE PARTICIPANTS AS OF JANUARY 1, 2016

	Years of Service							
	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 & Up	Total
Age	**Number of Participants**							
Under 25	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0
40 to 44	0	0	0	3	1	0	0	4
45 to 49	0	0	0	3	3	1	0	7
50 to 54	0	1	1	1	3	3	1	10
55 to 59	0	0	0	2	9	7	6	24
60 to 64	0	0	0	4	12	11	10	37
65 & Up	0	0	0	3	2	2	6	13
Total	0	1	1	16	30	24	23	95
	Salary							
Under 25	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0
40 to 44	0	0	0	180,814	54,318	0	0	235,132
45 to 49	0	0	0	134,202	183,819	68,106	0	386,127
50 to 54	0	49,636	49,635	106,665	178,690	198,143	58,487	641,256
55 to 59	0	0	0	115,548	548,814	446,572	378,365	1,489,299
60 to 64	0	0	0	259,232	837,551	817,218	743,217	2,657,218
65 & Up	0	0	0	123,373	98,094	133,138	427,746	782,351
Total	0	49,636	49,635	919,834	1,901,286	1,663,177	1,607,815	6,191,383

TABLE C-2 (CONTINUED)
SUMMARY OF ACTIVE PARTICIPANTS AS OF JANUARY 1, 2016

	Years of Service							
	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 & Up	Total
Age	**Average Compensation**							
Under 25	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0
40 to 44	0	0	0	60,271	54,318	0	0	58,783
45 to 49	0	0	0	67,101	61,273	68,106	0	64,355
50 to 54	0	49,636	49,635	53,333	59,563	66,048	58,487	58,296
55 to 59	0	0	0	57,774	60,979	63,796	63,061	62,054
60 to 64	0	0	0	64,808	69,796	74,293	74,322	71,817
65 & Up	0	0	0	41,124	49,047	66,569	71,291	60,181
Total	0	49,636	49,635	57,490	63,376	69,299	69,905	65,172

HISTORICAL SUMMARY

	2009	2010	2011	2012	2013	2014	2015	2016
Not Vested:	0	0	0	0	0	0	0	0
Partially Vested:	0	0	0	0	0	0	0	0
Fully Vested:	229	212	169	155	140	128	113	95
Total:	229	212	169	155	140	128	113	95
Total Compensation:	$13,958,960	$12,897,653	$10,399,205	$9,582,235	$8,834,557	$8,202,862	$7,306,661	$6,191,383
Average Rate of Pay:	$60,956	$60,838	$61,534	$61,821	$63,104	$64,085	$64,661	$65,172
Average Service:	21.5	22.1	23.0	24.2	24.7	25.3	25.7	25.9
Average Age:	55.6	56.1	56.8	57.5	57.9	58.6	59.0	59.3

TABLE C-3
SUMMARY OF DEFERRED VESTED AND DEFERRED DISABLED PARTICIPANTS AS OF JANUARY 1, 2016

Age	Number	Total Annual Benefit	Average Monthly Benefit
30-34	0	$ 0	$ 0
35-39	0	0	0
40-44	2	16,608	692
45-49	2	15,612	651
50-54	12	106,716	741
55-59	41	369,888	752
60-64	43	497,436	964
65 & Up	3	53,364	1,482
Total	103	$ 1,059,624	$ 857

HISTORICAL SUMMARY

	2010	2011	2012	2013	2014	2015	2016
Deferred Vested							
Number:	113	134	135	128	120	112	102
Total Annual Benefit:	$828,324	$1,308,605	$1,402,476	$1,320,218	$1,162,402	$1,123,187	$1,046,364
Average Monthly Benefit:	$611	$814	$866	$860	$807	$836	$855
Average Age:	55.4	56.2	57.0	57.6	58.0	58.4	59.0
Deferred Disabled							
Number:	1	1	1	1	1	1	1
Total Annual Benefit:	$13,260	$13,260	$13,260	$13,260	$13,260	$13,260	$13,260
Average Monthly Benefit:	$1,105	$1,105	$1,105	$1,105	$1,105	$1,105	$1,105
Average Age:	53.0	54.0	55.0	56.0	57.0	58.0	59.0

TABLE C-4
SUMMARY OF HEALTHY RETIREES, DISABLED RETIREES, AND BENEFICIARIES AS OF JANUARY 1, 2016

	Healthy Retirees			Disabled Retirees			Beneficiaries			Total		
Age	Number	Annual Benefit	Average Monthly Benefit	Number	Annual Benefit	Average Monthly Benefit	Number	Annual Benefit	Average Monthly Benefit	Number	Annual Benefit	Average Monthly Benefit
55-59	3	$29,367	$816	0	$0	$0	0	$0	$0	3	$29,367	$816
60-64	17	317,268	1,555	0	0	0	2	10,276	428	19	327,545	1,437
65-69	68	1,094,762	1,342	1	29,956	2,496	2	16,461	686	71	1,141,179	1,339
70-74	40	640,259	1,334	2	42,285	1,762	2	14,437	602	44	696,981	1,320
75-79	36	403,131	933	1	3,729	311	2	10,599	442	39	417,458	892
80-84	16	122,972	640	1	11,258	938	3	7,576	210	20	141,806	591
Above 85	13	126,972	814	0	0	0	13	112,679	722	26	239,651	768
Total	193	$2,734,731	$1,181	5	$87,228	$1,454	24	$172,028	$597	222	$2,993,987	$1,124

HISTORICAL SUMMARY

	2009	2010	2011	2012	2013	2014	2015	2016
Healthy Retirees								
Number:	137	141	141	143	157	163	179	193
Total Annual Benefit:	$1,389,056	$1,544,520	$1,551,801	$1,553,258	$1,836,582	$2,057,107	$2,363,969	$2,734,731
Average Monthly Benefit:	$845	$913	$917	$905	$975	$1,052	$1,101	$1,181
Average Age:	71.5	71.8	72.4	72.5	72.6	72.8	72.7	72.6
Disabled Retirees								
Number:	7	8	6	6	5	6	5	5
Total Annual Benefit:	$63,995	$88,050	$76,483	$76,483	$61,091	$91,047	$87,228	$87,228
Average Monthly Benefit:	$762	$917	$1,062	$1,062	$1,018	$1,265	$1,454	$1,454
Average Age:	74.3	74.1	72.5	73.5	72.4	72.2	73.8	74.8
Beneficiaries								
Number:	19	22	23	22	23	21	21	24
Total Annual Benefit:	$124,591	$138,291	$147,516	$140,353	$160,626	$151,954	$157,192	$172,028
Average Monthly Benefit:	$546	$524	$534	$532	$582	$603	$624	$597
Average Age:	81.1	81.2	81.3	81.6	82.4	82.1	82.6	821.7

TABLE C-5
NUMBER OF PENSIONERS AND AMOUNT OF ANNUAL ANNUITY AS OF THE END OF EACH YEAR

Year	Retirement*				Beneficiaries*				Disability**				All	
	Male		Female		Male		Female		Male		Female			
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1986	67	250,103			7	14,058							74	264,161
1987	72	267,262			6	12,904							78	280,166
1988	70	264,467			6	9,299							76	273,766
1989	75	355,402			5	15,931							80	371,333
1990	65	370,147	19	38,437	2	3,561	3	12,370	2	2,041	0	0	91	426,556
1991	64	370,359	17	42,832	3	4,736	3	14,349	2	2,041	0	0	89	434,317
1992	65	375,014	18	51,214	3	4,736	4	15,640	2	2,041	1	5,692	93	454,337
1993	67	393,340	22	79,136	3	4,736	7	35,056	3	18,485	1	5,692	103	536,445
1994	60	394,223	17	75,333	1	3,099	8	39,381	3	21,369	2	10,884	91	544,287
1995	55	359,659	17	77,358	1	3,099	11	55,120	4	25,825	2	10,884	90	531,945
1996	66	466,177	18	84,593	1	3,099	10	50,512	4	25,825	2	10,884	101	641,090
1997	68	477,993	21	104,091	1	3,099	10	50,512	5	35,717	2	10,884	107	682,296
1998	70	547,160	23	121,654	1	3,099	11	53,600	6	40,722	2	10,884	113	777,119
1999	74	593,649	23	133,013	1	3,099	12	61,432	5	32,577	2	10,884	117	834,654
2000	74	650,175	22	136,795	1	3,572	13	71,763	5	34,506	2	11,825	117	908,636
2001	74	656,815	23	143,199	1	3,572	13	71,763	6	45,764	2	11,825	119	932,938
2002	73	691,385	29	194,447	1	3,572	12	68,051	6	45,764	2	11,825	123	1,015,044
2003	75	750,807	31	214,130	2	9,855	12	70,742	6	45,764	1	5,543	127	1,096,841
2004	77	807,941	33	215,275	2	9,855	13	80,089	6	45,764	1	5,543	132	1,164,467
2005	78	809,581	33	215,275	2	9,855	14	87,665	6	45,764	1	5,543	134	1,173,683
2006	83	889,557	36	241,760	2	9,855	14	87,665	7	63,995	1	5,543	143	1,298,375
2007	90	1,080,910	43	310,359	2	9,855	16	97,728	7	63,994	1	5,543	159	1,568,389
2008	90	1,050,492	47	338,564	2	9,855	17	114,736	7	63,995	0	0	163	1,577,642
2009	92	1,160,329	49	384,191	2	9,855	20	128,436	8	88,050	0	0	171	1,770,861
2010	90	1,151,934	51	399,867	3	18,484	20	129,032	6	76,483	0	0	170	1,775,800
2011	90	1,141,103	53	412,155	3	18,484	19	121,869	6	76,483	0	0	171	1,770,094
2012	101	1,382,769	56	453,813	3	18,484	20	142,142	5	61,091	0	0	185	2,058,299
2013	103	1,512,466	60	544,641	2	12,201	19	139,753	6	91,047	0	0	190	2,300,108
2014	115	1,764,025	64	599,944	1	3,572	20	153,620	5	87,228	0	0	205	2,608,389
2015	122	2,024,794	71	709,937	1	3,572	23	168,456	5	87,228	0	0	222	2,993,987

* Male and female splits are not available prior to 1990.

** Retirement and disability splits are not available prior to 1990.

TABLE C-6
SCHEDULE OF MEMBERS ELIGIBLE FOR NORMAL OR DELAYED RETIREMENT IN THE NEXT FIVE YEARS

Normal Retirement Date	Current Status
12/1/2009	Active
6/1/2011	Active
1/1/2012	Active
2/1/2012	Deferred Vested
1/1/2013	Active
1/1/2013	Active
3/1/2013	Active
5/1/2013	Active
12/1/2013	Active
3/1/2014	Active
4/1/2014	Active
10/1/2014	Active
1/1/2015	Active
1/1/2015	Active
5/1/2015	Deferred Vested
1/1/2016	Deferred Vested
3/1/2016	Active
4/1/2016	Deferred Vested
4/1/2016	Deferred Vested
5/1/2016	Deferred Vested
7/1/2016	Deferred Vested
7/1/2016	Active
9/1/2016	Deferred Vested
9/1/2016	Deferred Vested
10/1/2016	Active
10/1/2016	Active
11/1/2016	Deferred Vested
11/1/2016	Active
12/1/2016	Active
12/1/2016	Active
12/1/2016	Deferred Vested
1/1/2017	Active
1/1/2017	Active
2/1/2017	Deferred Vested
3/1/2017	Deferred Vested
4/1/2017	Active
5/1/2017	Deferred Vested
7/1/2017	Deferred Vested
8/1/2017	Active
10/1/2017	Active
11/1/2017	Active
11/1/2017	Active

Normal Retirement Date	Current Status
12/1/2017	Active
12/1/2017	Deferred Vested
12/1/2017	Deferred Vested
1/1/2018	Deferred Vested
1/1/2018	Deferred Vested
2/1/2018	Deferred Vested
2/1/2018	Active
4/1/2018	Deferred Vested
5/1/2018	Active
6/1/2018	Deferred Vested
7/1/2018	Deferred Vested
8/1/2018	Active
8/1/2018	Deferred Vested
9/1/2018	Deferred Vested
9/1/2018	Active
9/1/2018	Active
10/1/2018	Deferred Vested
10/1/2018	Active
10/1/2018	Deferred Vested
11/1/2018	Deferred Vested
11/1/2018	Active
1/1/2019	Active
2/1/2019	Deferred Vested
2/1/2019	Deferred Vested
3/1/2019	Deferred Vested
3/1/2019	Active
3/1/2019	Deferred Vested
4/1/2019	Deferred Vested
4/1/2019	Active
4/1/2019	Active
5/1/2019	Deferred Vested
5/1/2019	Active
5/1/2019	Active
6/1/2019	Deferred Vested
7/1/2019	Active
10/1/2019	Active
11/1/2019	Deferred Vested
11/1/2019	Deferred Vested
2/1/2020	Deferred Vested
3/1/2020	Active
3/1/2020	Active
4/1/2020	Deferred Vested
5/1/2020	Active
5/1/2020	Deferred Vested
6/1/2020	Active
7/1/2020	Active
7/1/2020	Deferred Vested
8/1/2020	Deferred Vested
10/1/2020	Deferred Vested

Normal Retirement Date	Current Status
10/1/2020	Deferred Vested
11/1/2020	Active
11/1/2020	Active
12/1/2020	Deferred Vested
12/1/2020	Deferred Vested