Adams County Retirement Plan

ACTUARIAL VALUATION REPORT

as of January 1, 2018

GRS Retirement Consulting

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May 29, 2018

Ms. Pamela Mathisen
Plan Administrator
Adams County
4430 South Adams County Parkway, Suite C3406 Brighton,
CO 80601-8202

Re: Actuarial Valuation of the Adams County Retirement Plan as of January 1, 2018

Dear Pam:

We are pleased to present our Report on the actuarial valuation of the Adams County Retirement Plan as of January 1, 2018.

This Report presents the results of the January 1, 2018 actuarial valuation of the Adams County Retirement Plan. The Report describes the current actuarial condition of the Adams County Retirement Plan, determines the Actuarially Determined Contribution (ADC), and analyzes changes in these required rates.

We certify that the information included herein and contained in our January 1, 2018 Actuarial Valuation Report is accurate and fairly presents the actuarial position of the Adams County Retirement Plan as of the valuation date.

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The valuation was based upon information, furnished by the Plan, concerning Plan benefits, financial transactions, active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. This report and these calculations are not intended as legal or accounting advice, and we would recommend review by legal counsel for the compliance of these calculations with all relevant agreements.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events for the Pension Plan. 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.

The 9.00% employer and employee contribution are the rates that comply with law. Due to the many factors affecting a retirement system, users of this report should be aware that contributions made at that rate do not necessarily guarantee long-term benefit security.

This report does not include a detailed assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the plan's financial condition.

We believe that the assumptions and methods used in this report are reasonable and appropriate for the purpose for which they have been used. However, other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial.

Certification

The undersigned are independent actuaries and consultants. Leslie Thompson and Paul Wood are actuaries and meet the Qualification Standards of the American Academy of Actuaries. Both of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

Leslie L Thompson

Leslie Thompson, FSA, FCA, EA, MAAA
Senior Consultant

Paul T Wood

Paul Wood, ASA, FCA, MAAA
Consultant

Table of Contents

SECTION A

EXECUTIVE SUMMARY

Executive Summary

Valuations are prepared annually, as of January 1 of each year, the first day of the fiscal year. The primary purposes of the valuation report are to measure the plan's liabilities, to determine the required contribution rate and to analyze changes in the Adams County Retirement Plan's actuarial position.

In addition, the report provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods.

Financing Objectives

The Adams County Retirement Plan is supported by member contributions, employer contributions, and net earnings on the investments of the fund. Contribution rates are set in ordinance, currently at 9.00% for members and employers.

The combined member and employer contributions are intended to be sufficient to pay the normal cost and to amortize the Unfunded Actuarial Accrued Liability (UAAL) over a period of 30 years from the valuation date.

Progress toward Realization of Financing Objectives

The UAAL/(surplus) and the funded ratio (ratio of the actuarial value of assets to the actuarial accrued liability) illustrate the progress toward the realization of certain financing objectives. Based on the actuarial valuation as of January 1, 2018, the Plan has an unfunded liability of $224.89 million and a funded ratio of 53.6%. The funded ratio decreased from 56.0% to 53.6% and the Net Employer Actuarially Determined Contribution increased, from 13.50% of pay, to 15.21% of pay.

The net employer Actuarially Determined Contribution as a percentage of pay for the year beginning January 1, 2018 is 15.21%. The expected County contribution is 9.00% of pay which creates a contribution shortfall of 6.21% of pay. This compares to a shortfall in the prior year of 4.50% of pay.

The recent amendments to lower future benefit accruals help to decrease the future cost of the plan, but were offset this year by updates to the assumptions. The normal cost increased from 9.21% of pay to 10.03% of pay. Projections indicate an improvement in funded status over time. However, projections are built on assumptions from which experience may vary over time. Ongoing monitoring of the funded levels of the plan is recommended.

Experience During the Year

The plan experienced a liability loss of $2.48 million during fiscal year 2017 before the impact of assumption and benefit provision changes. This loss was largely due to salary increases that were higher than expected.

The plan experienced an actuarial asset gain of $0.63 million during fiscal year 2017. This gain was due to the actuarial value of assets earning a return greater than the assumed 7.5% return. The net overall result of the liability loss and the actuarial asset gain was an unfunded liability $1.85 million greater than expected at January 1, 2018.

There was also a loss due to a contribution shortfall of $5.5 million. This contribution shortfall decreased the funded ratio by 1.21% and increased the Actuarially Determined Contribution by 0.35% of pay. However, there was a increase in the normal cost and a larger than expected increase in the total payroll. The net result of all these effects was a increase in the actuarially determined contribution from 13.50% of pay to 15.21% of pay.

Assumptions and methods

There have been several changes in assumptions since the prior valuation including; updates to the mortality, both increases and decreases to individual salary increases depending on years of service with the County, increases in retirement and termination rates, decreases in disability rates, and lowering the age deferred disabled members commence their benefit. The assumptions have been selected by the Adams County Board of Retirement based upon the actuary's analysis and recommendations from the 2018 Experience Study.

The assumption changes increased the accrued liability by $25.5 million and increased the actuarially determined contribution by 2.29%. The actuarial assumptions are summarized in Section G of our report and the impact is shown in Section H in more detail.

The results of any actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in this Report are intended to provide information for rational decision making.

Benefit Provisions

All of the benefit provisions reflected in this valuation are those which were in effect on January 1, 2018. The vesting period for Tier 3 Members has been decreased from ten years of Credited Service to five years of Credited Service, which is effective for all current and future members. The provision change increases the accrued liability by $0.09 million.

The benefit provisions are summarized in Section D of our Report.

Data

Adams County staff supplied data for retired, active and inactive members as of January 1, 2018. We did not audit this data, but we did apply a number of tests to the data, and we have concluded that the data is reasonable and consistent with the prior year's data. Adams County staff also supplied asset data as of January 1, 2018.

Financial Position

Due mostly to liability increase from assumption changes, the funded ratio on and actuarial value of assets basis declined from January 1, 2017 to January 1, 2018. The funded ratio on a market value basis did improve slightly.

Exhibit A.1
Funded Status Summary ($ in millions)

Valuation Date	January 1, 2018	January 1, 2017
Accrued Liability	$484.19	$440.04
Actuarial Value of Assets (smoothed)	259.30	246.43
Unfunded Accrued Liability	$224.89	$193.60
Funded Ratio (AVA basis)	53.6%	56.0%
Market Value of Assets	$262.77	$237.46
Unfunded Accrued Liability	$221.42	$202.58
Funded Ratio (MVA basis)	54.3%	54.0%
Market Value Rate of Return	13.4%	8.4%
Actuarial Value Rate of Return	7.8%	7.2%

The funded status alone is not appropriate for assessing the need for future contributions. The funded status is also not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Investment gains reduced the Total Actuarially Determined Contribution by roughly 0.04%. Liability losses increased the Total Actuarially Determined Contribution by approximately 0.16%. Assumption changes increased the Total Actuarially Determined Contribution by about 2.29%. The Employer Net Annual Required Contribution of 13.50% of pay for Fiscal Year 2017 and 15.21% of pay for Fiscal Year 2018 are based on contributions being made throughout the year, consistent with the funding policy of the Plan.

Exhibit A.2
Contribution Requirement Summary
All Numbers Reported Middle of Year, Percent of Pay

Fiscal Year Beginning	January 1, 2018	January 1, 2017
Total Normal Cost	10.03%	9.21%
Amortization of UAL	13.61%	12.65%
Assumed Expenses	0.57%	0.64%
Total Actuarially Determined Contribution	24.21%	22.50%
Estimated Member Contribution	9.00%	9.00%
Net Annual Required Contribution Mid-Year	15.21%	13.50%
Estimated County Contribution	9.00%	9.00%
Contribution Shortfall	6.21%	4.50%

Benefit changes were made as of January 1, 2014 which decrease the rate of benefits accrued for all service after January 1, 2014, both for current members and future members. The lower benefit accruals helped decrease the normal cost rate from 10.29% in 2014 to 10.03% this year and will have the effect of continuing to decrease the normal cost rate over time. Changes to the assumptions and benefits increased the normal cost rate by 1.07% this year, so while a contribution shortfall exists this year, this contribution shortfall is expected to decrease over time.

Exhibit A.3 Adams County Retirement Plan Executive Summary		
	January 1, 2018	January 1, 2017
1. **Actuarially Determined Contribution**		
a. Total	$ 30,815,610	$ 27,128,487
b. Net Employer Contribution	19,360,970	16,276,851
c. Net Employer %	15.21%	13.50%
2. **Funded Status**		
a. Actuarial Accrued Liability	$ 484,193,980	$ 440,035,366
b. Actuarial Value of Assets (AVA)	259,301,061	246,434,159
c. Unfunded Liability (AVA-basis)	224,892,919	193,601,207
d. Funded Ratio (AVA-basis)	53.6%	56.0%
e. Market Value of Assets (MVA)	$ 262,772,171	$ 237,457,658
f. Unfunded Liability (MVA-basis)	221,421,809	202,577,708
g. Funded Ratio (MVA-basis)	54.3%	54.0%
3. **Summary of Census Data**		
a. Actives		
i. Counts	2,057	2,030
ii. Total Annual Projected Compensation	$ 127,273,779	$ 120,573,734
iii. Average Projected Compensation	61,873	59,396
iv. Average Age	42.8	43.0
v. Average Service	8.2	8.2
b. Members with Refunds Due Counts	132	101
c. Deferred Vested Member Counts	187	189
d. Retired Member Counts	958	908
e. Beneficiary Counts	102	99
f. Disabled Retiree Counts	47	45
g. Total Members Included in Valuation	3,483	3,372

SECTION B

VALUATION RESULTS

Actuarial Accrued Liability

Exhibit B.1 Adams County Retirement Plan Actuarial Valuation Results Actuarial Accrued Liability		
	January 1, 2018	January 1, 2017
1. **Active Members**		
a. Retirement Benefits	$ 190,099,917	$ 169,032,717
b. Withdrawal Benefits	(668,371)	(1,912,643)
c. Refund Benefits	(2,974,705)	(5,061,303)
d. Disability Benefits	4,809,633	7,514,429
e. Death Benefits	2,534,022	2,691,282
f. Total	$ 193,800,496	$ 172,264,482
2. **Members with Deferred Benefits**	$ 15,464,348	$ 14,214,546
3. **Members Receiving Benefits**	$ 274,929,136	$ 253,556,338
4. **Total**	$ 484,193,980	$ 440,035,366
5. **Actuarial Value of Assets**	$ 259,301,061	$ 246,434,159
6. **Unfunded Actuarial Accrued Liability**	$ 224,892,919	$ 193,601,207

Normal Cost

Exhibit B.2 Adams County Retirement Plan Actuarial Valuation Results Normal Cost		
	January 1, 2018	**January 1, 2017**
1. **Total Dollar Normal Cost**		
a. Retirement Benefits	$ 8,209,322	$ 7,452,620
b. Withdrawal Benefits	3,964,808	2,816,308
c. Disability Benefits	372,352	555,183
d. Death Benefits	224,590	278,582
e. Total	$ 12,771,072	$ 11,102,693
2. **Normal Cost as a Percentage of Pay**	10.03%	9.21%
3. **Normal Cost as a Percentage of Pay by Tier**		
a. Tier 1	13.57%	11.87%
b. Tier 2	11.39%	10.35%
c. Tier 3	7.57%	6.97%

Present Value of Projected Benefits

Exhibit B.3 Adams County Retirement Plan Actuarial Valuation Results Present Value of Projected Benefits		
	January 1, 2018	**January 1, 2017**
1. **Active Members**		
a. Retirement Benefits	$ 248,329,856	$ 227,305,013
b. Withdrawal Benefits	27,807,959	17,267,571
c. Disability Benefits	7,413,630	11,629,520
d. Death Benefits	4,215,316	5,068,197
e. Total	$ 287,766,761	$ 261,270,301
2. **Members with Deferred Benefits**	$ 15,464,348	$ 14,214,546
3. **Members Receiving Benefits**	$ 274,929,136	$ 253,556,338
4. **Total**	$ 578,160,245	$ 529,041,185

Actuarially Determined Contribution

Exhibit B.4 Adams County Retirement Plan Development of the Actuarially Determined Contribution				
Fiscal Year Beginning	**January 1, 2018**		**January 1, 2017**	
	Dollar	**Percent of Pay**	**Dollar**	**Percent of Pay**
1. Total Normal Cost	$ 12,771,072	10.03%	$ 11,102,693	9.21%
2. Amortization of Unfunded Actuarial Accrued Liability Over 30 Years	17,324,538	13.61%	15,248,794	12.65%
3. Assumed Administrative Expenses	720,000	0.57%	777,000	0.64%
4. Actuarially Determined Contribution (ADC)	$ 30,815,610	24.21%	$ 27,128,487	22.50%
5. Estimated Member Contribution	11,454,640	9.00%	10,851,636	9.00%
6. Net ADC Mid-Year	$ 19,360,970	15.21%	$ 16,276,851	13.50%
7. Estimated County Contribution Mid-Year	11,454,640	9.00%	10,851,636	9.00%
8. Contribution Shortfall	$ 7,906,330	6.21%	$ 5,425,215	4.50%
9. Annual Projected Payroll	$ 127,273,779		$120,573,734	

Plan Experience

Exhibit B.5 Adams County Retirement Plan Plan Experience for Fiscal Year 2017		
Liabilities		
1.	Actuarial Accrued Liability at January 1, 2017	$ 440,035,366
2.	Normal Cost for Fiscal Year 2017	11,102,693
3.	Benefit Payments during Fiscal Year 2017	27,385,838
4.	Interest on Items 1-3 to End of Year	32,392,035
5.	Change in Actuarial Accrued Liability Due to Assumption Changes	25,485,910
6.	Change in Actuarial Accrued Liability Due to Provision Changes	86,597
7.	Expected Actuarial Accrued Liability at January 1, 2018	481,716,763
8.	Actual Actuarial Accrued Liability at January 1, 2018	484,193,980
9.	Liability Gain/(Loss)	(2,477,217)
Assets		
10.	Actuarial Value of Assets at January 1, 2017	$ 246,434,159
11.	Benefit Payments and Expenses during Fiscal Year 2017	28,021,997
12.	Contributions during Fiscal Year 2017	22,004,791
13.	Interest on Items 10-12 to End of Year	18,256,917
14.	Expected Actuarial Value of Assets at January 1, 2018	258,673,870
15.	Actual Actuarial Value of Assets at January 1, 2018	259,301,061
16.	Asset Gain/(Loss)	627,191
Total		
17.	Total Gain/(Loss)	**$ (1,850,026)**

Plan Experience By Source

Exhibit B.6 Adams County Retirement Plan Plan Experience for Fiscal Year 2017 Gain/(Loss) by Source		
1. Asset Gain/(Loss)	$	627,191
2. Liability Gain/(Loss)		
a. Salary Gain/(Loss)	$	(1,808,699)
b. New Members and Rehire Gain/(Loss)		(511,613)
c. Withdrawal Gain/(Loss)		(287,531)
d. Disability Gain/(Loss)		(372,800)
e. Retirement Gain/(Loss)		(273,517)
f. Annuitant Mortality Gain/(Loss)		(570,617)
g. LTD to Disability Retirement		678,341
j. Other Demographic		669,220
k. Total	$	(2,477,217)
3. Total Gain/(Loss)	$	(1,850,026)

SECTION C

PLAN ASSETS

Statement of Plan Net Assets

Exhibit C.1 Adams County Retirement Plan Statement of Plan Net Assets		
	December 31, 2017	**December 31, 2016**
Assets		
Investments, at fair value:		
Cash	$ 24,706	$ 19,855
Money Market Funds	6,604,433	4,387,756
Public Equity	107,150,049	92,721,931
Private Equity	11,525,402	9,846,483
Floating Rate Debt	24,117,437	18,628,218
Fixed Rate Debt	34,610,904	26,054,806
Low Volatility	25,293,673	14,718,064
Real Estate Funds	41,244,936	43,677,030
Liquid Real Assets	12,220,329	27,448,335
Total cash and investments	$ 262,791,869	$ 237,502,478
Receivables:		
Dividends and Interest	139,248	145,504
Other Assets:		
Prepaid insurance for retirees	-	-
Total assets	$ 262,931,117	$ 237,647,982
Liabilities and net assets held in trust for benefits		
Accrued liabilities	158,946	190,324
Total payables	$ 158,946	$ 190,324
Net assets held in trust for pension benefits	$ 262,772,171	$ 237,457,658

Statement of Changes in Plan Net Assets

Exhibit C.2
Adams County Retirement Plan
Statement of Changes in Plan Net Assets

	Year Ended December 31, 2017		Year Ended December 31, 2016	
Additions to Net Assets Attributed to:				
Contributions:				
Employer contributions	$	10,954,633	$	10,316,491
Plan Members contributions		10,954,633		10,316,491
Plan Members for Purchase of service		95,525		150,173
Total contributions	$	22,004,791	$	20,783,155
Investment Income:				
Net appreciation in fair value of investments	$	28,899,633	$	16,305,478
Interest		1,179,403		1,125,745
Dividends		2,900,208		2,743,886
Other		165		29,040
Total Investment Income	$	32,979,409	$	20,204,149
Less Investment expense		(1,647,690)		(1,587,699)
Net investment income	$	31,331,719	$	18,616,450
Total additions	$	53,336,510	$	39,399,605
Deductions to Net Assets Attributed to:				
Benefit payments	$	25,057,619	$	23,098,280
Refunds		2,328,219		2,989,507
Administrative expenses		636,159		837,324
Total deductions	$	28,021,997	$	26,925,111
Change in net assets		25,314,513		12,474,494
Net assets held in trust for benefits:				
Beginning of year		237,457,658		224,983,164
End of year	$	262,772,171	$	237,457,658

Actuarial Value of Assets

Exhibit C.3
Adams County Retirement Plan
Development of the Actuarial Value of Assets

	Item				Year Ending December 31, 2017
1.	Actuarial value of assets, at beginning of year (prior to corridor)				$ 246,434,159
2.	Market value of assets, at beginning of year				$ 237,457,658
3.	Net new investments				
	a. Contributions received for prior plan year				$ 22,004,791
	b. Benefits paid and administrative expenses				(28,021,997)
	c. Net				$ (6,017,206)
4.	Market value of assets, at end of year				$ 262,772,171
5.	Net MVA earnings [(4) - (2) - (3c)]				$ 31,331,719
6.	Assumed investment return rate				7.50%
7.	Expected return [(6)*(2)+(6)*(3c)/2]				$ 17,583,679
8.	Excess return [(5) - (7)]				$ 13,748,040
9.	Expected actuarial value of assets as of December 31, 2017 [(1) + (3c) + (7)]				$ 258,000,632
10.	Deferred amounts for fiscal year ending December 31,				
	Year	Gain/(Loss)	20% Recognized This Year	Percent Deferred	Amount Deferred
	a. 2017	$ 13,748,040	$ 2,749,608	80%	$ 10,998,432
	b. 2016	1,973,036	394,607	60%	1,183,822
	c. 2015	(21,336,739)	(4,267,348)	40%	(8,534,695)
	d. 2014	(882,249)	(176,450)	20%	(176,449)
	e. 2013	13,000,059	2,600,012	0%	-
	f. Total	$ 6,502,147	$ 1,300,429		$ 3,471,110
11.	Asset gain/(loss) to be recognized as of December 31, 2017				$ 1,300,429
12.	80% of Market Value				$ 210,217,737
13.	120% of Market Value				$ 315,326,605
14.	Actuarial value of assets [(Item 9 + Item 11), but not more than Item 13 or less than Item 12]				$ 259,301,061

Annual Rates of Investment Return

Exhibit C.4 Average Annual Rates of Investment Return				
Fiscal Year Ended December 31,	Actuarial Value		Market Value	
	Annual	Cumulative	Annual	Cumulative
1995	12.1 %	10.7 %	22.9 %	10.1 %
1996	11.6	10.9	12.0	10.4
1997	13.0	11.3	17.0	11.5
1998	12.2	11.4	9.0	11.1
1999	12.0	11.5	4.0	10.2
2000	8.7	11.2	2.6	9.4
2001	6.2	10.7	(1.6)	8.2
2002	(4.5)	9.2	(10.9)	6.3
2003	9.7	9.2	22.4	7.6
2004	4.3	8.8	11.0	7.8
2005	4.4	8.5	6.2	7.7
2006	7.6	8.5	14.2	8.1
2007	11.1	8.6	8.2	8.1
2008	(7.9)	7.6	(26.2)	5.7
2009	11.6	7.8	12.5	6.1
2010	1.9	7.5	9.5	6.3
2011	(0.1)	7.1	(0.5)	5.9
2012	0.4	6.8	12.1	6.2
2013	9.3	6.9	14.1	6.6
2014	8.7	6.9	7.1	6.6
2015	6.4	6.8	(1.7)	6.1
2016	7.2	6.6	8.4	6.0
2017	7.8	6.5	13.4	6.6

SECTION D

SUMMARY OF BENEFIT PROVISIONS

Summary of Benefit Provisions

Based on the Plan Originally effective July 1, 1968 and amended and restated effective January 1, 2018

Participation

Membership in the Retirement Plan is automatic upon the first day of Covered Employment. You are in Covered Employment when you are (1) an elected or appointed County official or deputy, or staff of such person, (2) an employee of an Employer who is in a regular position regularly scheduled to work or budgeted for at least 30 hours each week, or (3) an employee of the Retirement Board who meets these requirements. Any employee of the Retirement Board who meets these requirements is considered an employee of the County for purposes of the Plan.

You are not eligible to participate in the Retirement Plan if you are (1) an employee in a position regularly scheduled to work or budgeted for less than 30 hours each week, (2) a leased employee, (3) an independent contractor, or (4) in a position that does not meet the criteria in the above paragraph, such as a position designated as temporary, seasonal, provisional, regular part-time scheduled to work less than 30 hours per week, project designated full-time, project designated part-time, or an election judge.

Member Contributions

Effective January 1, 2015, each member contributes 9.00% of compensation on a monthly basis. Interest on contributions is credited at a rate of 3.0% per annum compounded monthly.

Contribution Accumulation means the total of the member Pre-2014 Contribution Accumulation and Post-2013 Contribution Accumulation. The Pre-2014 Contribution Accumulation means the total of the member contributions to the retirement fund prior to January 1, 2014, plus interest. The Post-2013 Contribution Accumulation means the total of the member contributions to the retirement fund on or after January 1, 2014, plus interest. The Contribution Accumulation does not include any amounts paid to purchase previous service credit.

After December 31, 1983 member contributions are picked up and paid by the County as provided in Code Section 414(h).

County Contributions

The County will match member contributions.

Credited Service

All service completed during the elapsed time from the member's date of employment, excluding any breaks in service, to the member's date of termination on the basis of 1/365th year for each day of employment after January 1, 1965, provided an employee joined the plan on the first date eligible. Service prior to January 1, 1970 will be included (up to five years) provided the employee became a Member on the first date of eligibility.

Service is credited while a member is on long-term disability or is eligible for disability benefits from Social Security, even if the member does not receive disability benefits from Social Security because they are reduced to zero due to other disability benefits received. No credited service will be granted if the member chooses to receive a lump-sum payment from the Employer's LTD plan unless the member qualifies for disability benefits from Social Security (regardless of whether or not the member actually receives Social Security disability benefits).

Service Purchase

Eligible members may purchase additional years of service credit for any full-time, non-vested previous employment with any public or private employer in the United States, subject to certain restrictions.

Classification of Tiers

- *Tier 1* - Members hired prior to January 1, 2005
- *Tier 2* - Members hired on or after January 1, 2005 but before January 1, 2010
- *Tier 3* - Members hired on or after January 1, 2010

Compensation

Compensation is the total regular compensation paid to the member, reflecting the normal regular salary or hourly wage rate, before any payroll deductions for income tax, Social Security, group insurance, or any other purpose, excluding bonuses, extra pay, overtime pay, workers' compensation, single-sum payments received in lieu of accrued vacation and sick leave upon termination of employment or during the course of employment, required contributions by the County under this Plan, or for Social Security, group insurance, retainers' fees under contract, or the like, but including compensation deferred under Sections 125, 403(b), 414(h), or 457 of the Internal Revenue Code.

Final Average Monthly Compensation

- *Tier 1 - Members hired prior to January 1, 2005:*

  Average of the highest 36 consecutive calendar months of compensation during the last 120 months of employment.

- *Tier 2 - Members hired on or after January 1, 2005 but before January 1, 2010:*

  Average of the highest 60 consecutive calendar months of compensation during the last 120 months of employment.

Career Compensation

- *Tier 3 - Members hired on or after January 1, 2010:*

  Pensionable Compensation from date of participation to retirement.

- *Tiers 1 & 2 - Members hired prior to January 1, 2010:*

  Pensionable Compensation from January 1, 2014 to retirement.

Career Monthly Compensation

Career Compensation divided by Credited Service accrued during the period. If hired before January 1, 2010 and become disabled before January 1, 2014, special calculations apply. For members with a qualified military leave of absence, career compensation will include compensation credited at a rate that would have been in effect during the leave.

Accrued Benefit (Monthly)

Effective January 1, 2014, the accrued benefit for Tier 1 and Tier 2 members is composed of "Component A" benefit plus a "Component B" benefit. Component A shall mean the benefit attributable to service credit earned prior to January 1, 2014. Component B shall mean the benefit attributable to service credit earned on or after January 1, 2014.

Tiers 1 & 2 - Members hired prior to January 1, 2010:

- *Component A Benefit:*

  2.5% of Final Average Monthly Compensation multiplied by Credited Service prior to January 1, 2014 including purchased service.

- *Component B Benefit:*

  Greater of 1.75% of Career Compensation divided by 12, or 1.75% of Career Monthly Compensation times Credited Service earned on or after January 1, 2014.

Tier 3 - Members hired on or after January 1, 2010:

- 1.75% of Career Compensation divided by 12 or 1.75% of Career Monthly Compensation times Credited Service, if greater.

The minimum monthly accrued benefit for all members is $25 per month per year of Credited Service.

Vested Accrued Benefit

Eligibility:

Five years of Credited Service for all Tiers. Tier 3 formerly required ten years of Credited Service.

Benefit:

100% of the Accrued Benefit determined as of the date of termination. The benefit may be reduced if payment commences before the Normal Retirement Date or the Special Early Retirement Date.

Normal Retirement

Eligibility:

Attainment of age 65.

Benefit:

Accrued Benefit up to a maximum of 80% of the member's average monthly compensation during any consecutive 12-month period in which the member receives their highest average monthly compensation.

Regular Early Retirement

Eligibility:

- *Tier 1 - Members hired prior to January 1, 2005:*

  Attainment of age 55 and 5 years of Credited Service.

- *Tiers 2 & 3 - Members hired on or after January 1, 2005:*

  Attainment of age 55 and 10 years of Credited Service.

Benefit:

- *Tier 1 - Members hired prior to January 1, 2005:*

  Vested Accrued Benefit determined as of the Early Retirement Date, reduced by 1/6 of 1% for each of the first 36 months and 1/4 of 1% for each additional month payments commence prior to the Normal Retirement Date.

- *Tiers 2 & 3 - Members hired on or after January 1, 2005:*

  Vested Accrued Benefit determined as of the Early Retirement Date, reduced by 1/3 of 1% for each of the first 36 months and 5/12 of 1% for each additional month payments commence prior to the Normal Retirement Date.

Special Early Retirement

Eligibility:

- *Tier 1 - Members hired prior to January 1, 2005:*

  Attainment of any age and age plus credited service equals 70 or more at termination.

- *Tier 2 - Members hired on or after January 1, 2005 and prior to January 1, 2010:*

  Attainment of age 50 and age plus credited service equals 70 or more at termination.

- *Tier 3 - Members hired on or after January 1, 2010:*

  Attainment of age 55 and age plus credited service equals 80 or more at termination.

Benefit:

Vested Accrued Benefit determined as of the Special Early Retirement Date, unreduced for early payment.

Disability Retirement

Eligibility:

Total and permanent disability. Member qualifies for disability under the County's long-term disability plan or under Title II of the Social Security Act.

Benefit:

Normal Retirement Benefit considering annual rate of compensation at disability and Credited Service that would have accumulated if employment had continued uninterrupted to the later of the Normal Retirement Date, or the date that the County's long-term disability benefits end. The Component A Benefit will be based on Credited Service attributable to the period ending on December 31, 2013 (including any period through December 31, 2013 while the member was disabled), and the Average Monthly Compensation when the member became disabled. The Component B Benefit will be based on Credited Service attributable to the period beginning on January 1, 2014 and ending on retirement or the date payments under the Employer's LTD plan end, whichever is later (including the period on or after January 1, 2014 while the member was disabled), and the Career Monthly Compensation when the member became disabled.

Benefits commence at Normal Retirement Date, or if later, the first day of the month after payments cease under the County's long-term disability insurance contract.

Termination Benefit

Eligibility:

Members with less than five years of Credited Service receive a refund of the member's contributions. Members who have completed at least five years of Credited Service are eligible to receive their Vested Accrued Benefit payable at Normal Retirement Date.

Benefit:

Vested Accrued Benefit determined as of the date of termination but not less than the actuarial equivalent value, determined as of the benefit commencement date, of the Accumulated Contributions as of the Normal Retirement Date.

Refund of Accumulated Contributions

Upon termination prior to any type of retirement, in lieu of a monthly pension benefit, the member may elect to receive a refund of a percentage of the Pre-2014 accumulated contributions (excluding service purchase contributions) according to the following schedule, plus 100% of the Post-2013 accumulated contributions:

	Percent Vested of Pre-2014 Contributions Accumulated At Termination		
Completed Years of Service	**Hired Prior to 1/1/2005**	**Hired 2005-2010**	**Hired on or after January 1, 2010**
Less Than 5	100%	100%	100%
5	110%	100%	100%
6	125%	110%	100%
7	140%	120%	100%
8	155%	130%	100%
9	170%	140%	100%
10	185%	150%	100%
11	200%	160%	100%
12	200%	170%	100%
13	200%	180%	100%
14	200%	190%	100%
15 or more	200%	200%	100%

Pre-Retirement Death Benefit

- *Member is single:*

  Beneficiary receives two times member's accumulated contributions at date of death (excluding service purchase contributions).

- *Member is married:*

  Spouse receives two times member's accumulated contributions at date of death (excluding service purchase contributions); or

  A monthly benefit equal to 60% of the member's vested accrued benefit, commencing the first day of the month after the member's death or age 50 (55 for Terminated Vested Members) whichever is later.

Normal Form

- *Tier 1* - 10-year certain and life
- *Tier 2* - 10-year certain and life
- *Tier 3* - Single life annuity

Optional Forms

- 100% joint and survivor annuity
- 50% joint and survivor annuity
- 66-2/3% last survivor annuity
- 100% joint and survivor annuity with pop up
- 50% joint and survivor annuity with pop up
- For members in Tier 1 and Tier 2 only: Single life annuity
- For members in Tier 3 only: 10-year certain and life

Optional Form Conversion Factors

Optional annuity forms are actuarially equivalent based on 7.25% interest and the 1983 Group Annuity Mortality table blended 50% male and 50% female.

Payment Date

Benefits are paid on the first day of the month following eligibility for receipt.

Rehires

Effective January 1, 2017, any employee who terminates employment and is reemployed and was otherwise entitled to the Rule of 70 (with or without a minimum age of 50), and who is reemployed on or after January 1, 2017, shall be eligible for a Special Early Retirement (a) with respect to the portion of such employee's accrued benefit attributable to Credited Service earned prior to the period of reemployment when the sum of his age plus service (including purchase of service) equals 70 or more and he is not employed by any Employer as an employee, and (b) with respect to the portion of such employee's accrued benefit attributable to Credited Service earned after the period of reemployment when the sum of his age plus service (including purchase of service) equals 80 or more and he is not employed by any Employer as an employee, if the Rule of 80 date is not earlier than the date the employee would have been eligible for a Special Early Retirement if the employee had remained in-service since December 31, 2016.

SECTION E

SUMMARY OF PARTICIPANT DATA

Summary of Census Data

Exhibit E.1 Adams County Retirement Plan Summary of Census Data		
	January 1, 2018	**January 1, 2017**
1. **Active Members**		
a. Counts		
Tier 1	509	572
Tier 2	331	348
Tier 3	1,217	1,110
Total	2,057	2,030
b. Annual Projected Compensation	$ 127,273,779	$ 120,573,734
c. Average Annual Compensation	$ 61,873	$ 59,396
d. Average Age	42.8	43.0
e. Average Service	8.2	8.2
f. Accumulated Member Contributions with Interest	$ 79,409,759	$ 74,617,709
2. **NonVested Members with Refunds Due**		
a. Counts	132	101
b. Amount of Refunds Due	$ 898,044	$ 601,800
3. **Deferred Vested Members***		
a. Counts	187	189
b. Annual Deferred Benefits	$ 2,575,861	$ 2,492,818
c. Average Benefit	$ 13,775	$ 13,190
4. **Retired Members**		
a. Counts	958	908
b. Annual Benefits	$ 23,461,169	$ 21,975,182
c. Average Benefit	$ 24,490	$ 24,202
5. **Beneficiaries**		
a. Counts	102	99
b. Annual Benefits	$ 1,443,592	$ 1,277,239
c. Average Benefit	$ 14,153	$ 12,901
6. **Disabled Retirees**		
a. Counts	47	45
b. Annual Benefits	$ 783,857	$ 763,320
c. Average Benefit	$ 16,678	$ 16,963
7. Total Members Included in Valuation	3,483	3,372

*Includes 25 deferred disableds in 2018 and 26 deferred disableds in 2017.

Summary of Changes in Participant Status

Exhibit E.2
Summary of Changes in Participant Status
During Fiscal Year 2017

	Active Members	With Deferred Benefits[1]	With Refunds Due	Retirees	Disabled Retirees	Beneficiaries	Total
As of January 1, 2017	2,030	189	101	908	45	99	3,372
Age retirements	(63)	(6)		69			0
Disability retirements		(2)			2		0
Deferred disability	(2)	2					0
Deaths	(2)			(19)		(6)	(27)
Vested terminations	(14)	14					0
Rehires	6	(1)	(5)				0
Cashouts	(108)	(9)	(59)				(176)
Expiration of benefits						(1)	(1)
Terminated nonvested with refunds due	(95)		95				0
New beneficiary or Alternate Payee						10	10
New entrants during the year[2]	305						305
Data correction							
Net change							
As of January 1, 2018	2,057	187	132	958	47	102	3,483

[1] Includes 25 deferred disabled members at January 1, 2018

[2] Includes 27 members hired and terminated in 2017 with refunds due.

Active Member Counts by Age and Service

Exhibit E.3
Active Member Counts by Age and Service
as of January 1, 2018

Age	Service							
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	Total
Under 20	1	0	0	0	0	0	0	1
20-24	63	0	0	0	0	0	0	63
25-29	239	9	0	0	0	0	0	248
30-34	235	52	20	1	0	0	0	308
35-39	144	62	66	20	0	0	0	292
40-44	111	51	55	56	4	0	0	277
45-49	91	33	61	52	28	5	0	270
50-54	67	36	45	61	19	13	8	249
55-59	56	25	29	26	13	16	12	177
60-64	23	21	25	20	11	10	13	123
65-69	4	4	10	10	3	4	1	36
Over 70	3	2	0	3	1	1	3	13
Total	1,037	295	311	249	79	49	37	2,057

Active Member Average Salary by Age and Service

Exhibit E.4
Active Member Average Salary at Valuation Date by Age and Service[1]

Age	Service							
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	Total
Under 20								
20-24	$40,512							$40,512
25-29	45,814	$56,000						46,183
30-34	49,602	69,905	$67,309					54,202
35-39	51,126	64,933	68,669	$69,785				59,301
40-44	54,350	62,679	74,325	74,172				64,117
45-49	53,342	61,464	64,519	71,824	74,784	$93,504		63,387
50-54	50,618	62,138	67,050	71,032	74,038	$83,268	$90,209	65,018
55-59	53,777	53,937	63,062	58,944	72,552	77,919	73,171	60,956
60-64	52,890	59,034	60,450	59,059	69,870	68,364	73,667	61,451
65-69			82,200	50,169				66,911
Over 70								55,613
Total	$49,683	$62,907	$67,785	$68,747	$73,196	$77,985	$79,126	$58,731

[1] Average Salary not shown if group contains less than five members

Exhibit E.5 10-Year Projected Benefit Payments (Closed Group)			
Fiscal Year Ended December 31,	Actives	Inactives	Total
2018	$ 2,950,145	$26,288,699	$ 29,238,844
2019	5,183,564	26,109,788	31,293,353
2020	7,209,582	25,940,607	33,150,189
2021	9,050,992	25,733,497	34,784,489
2022	10,804,776	25,535,588	36,340,364
2023	12,485,249	25,250,277	37,735,525
2024	14,187,663	24,924,742	39,112,405
2025	15,893,637	24,611,338	40,504,975
2026	17,594,512	24,227,312	41,821,824
2027	19,257,043	23,813,608	43,070,651

Exhibit E.6 History of Refunds	
Fiscal Year Ended December 31,	Refund Amount
2006	$ 1,225,048
2007	1,187,708
2008	1,220,911
2009	1,043,307
2010	910,161
2011	1,761,213
2012	1,870,042
2013	2,029,377
2014	3,253,473
2015	3,086,203
2016	2,989,507
2017	2,328,219

SECTION F

HISTORICAL SCHEDULES

Schedule of Funding Progress

Exhibit F.1 Adams County Retirement Plan Schedule of Funding Progress						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
(1)	(2)	(3)	(4)=(3)-(2)	(5)=(2)/(3)	(6)	(7)=(4)/(6)
1/1/2009	$ 179,216,396	$ 316,117,270	$ 136,900,874	56.7%	$ 94,396,658	145.0%
1/1/2010	200,975,215	340,984,767	140,009,552	58.9%	98,982,060	141.4%
1/1/2011	204,666,912	356,275,436	151,608,524	57.4%	95,737,553	158.4%
1/1/2012	201,712,397	371,702,160	169,785,105	54.3%	94,160,223	180.3%
1/1/2013	199,076,191	386,835,357	187,759,166	51.5%	96,443,158	194.7%
1/1/2014	214,140,815	379,802,962	165,662,147	56.4%	102,088,234	162.3%
1/1/2015	227,350,888	398,075,505	170,724,617	57.1%	107,861,819	158.3%
1/1/2016	235,725,998	419,358,970	183,632,972	56.2%	113,995,220	161.1%
1/1/2017	246,434,159	440,035,366	193,601,207	56.0%	120,573,734	160.6%
1/1/2018	259,301,061	484,193,980	224,892,919	53.6%	127,273,779	176.7%

Schedule of Employer Contributions

Exhibit F.2 Adams County Retirement Plan Schedule of Employer Contributions			
Fiscal Year Ended December 31,	Actuarially Determined Contribution	Actual County Contribution	Percentage Contributed
2006	$ 10,110,243	$ 5,175,320	51.2%
2007	11,320,501	5,740,166	50.7%
2008	11,542,116	6,445,284	55.8%
2009	16,237,097	7,048,276	43.4%
2010	16,856,144	7,153,366	42.4%
2011	17,559,138	7,235,764	41.2%
2012	18,762,499	7,533,395	40.2%
2013	19,659,013	8,289,767	42.2%
2014	15,406,279	8,964,812	58.2%
2015	15,254,244	9,709,230	63.6%
2016	15,858,211	10,316,491	65.1%
2017	16,276,851	10,954,633	67.3%
2018	19,360,970	TBD	TBD

Supplementary Information

Exhibit F.3 Adams County Retirement Plan Supplementary Information	
Valuation Date	January 1, 2018
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar Open
Remaining Amortization Periods	30 Years
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return	7.25%
Projected Salary Increases	Service-based increases from 3.5% to 6.10%
Inflation	2.50%
Cost of Living Adjustments	N/A

SECTION G

ACTUARIAL ASSUMPTIONS AND METHODS

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

I. Valuation Date

The valuation date is January 1st of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial liability.

1. The valuation is prepared on the projected benefit basis. The present value of each participant's expected benefit payable at retirement or termination is determined, based on age, service, sex, compensation, and the interest rate assumed to be earned in the future (7.25%). The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of terminating with a service benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The employer contributions required to support the benefits of the Plan are determined following a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.

3. The normal contribution is determined using the Entry Age Normal cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of anticipated covered service, would be required in addition to the contributions of the participant to meet the cost of all benefits payable on their behalf.

4. The unfunded accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date as a level dollar. It is assumed that payments are made throughout the year.

III. Actuarial Value of Assets

The actuarial value of assets is based on recognizing gains and losses over a five-year period where gains and losses are determined by comparing the projected market value of assets (based on the prior year's market value of assets, cash flows during the year and expected investment returns on those amounts) to the current year's market value of assets. The actuarial value of assets must be between 80% and 120% of market value.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 7.25% per annum, compounded annually, composed of an assumed 2.50% inflation rate and a 4.75% real rate of return. This rate represents the assumed return, net of all investment expenses.

2. Salary increase rate: Inflation rate of 2.50%, plus productivity component of 1.00%, plus step-rate/ promotional component as shown (adopted May 2018).

Completed Years of Service	Percentage Increase in Salary		
	Merit	Wage Inflation	Total
0	2.60 %	3.50 %	6.10 %
5	2.30	3.50	5.80
10	2.00	3.50	5.50
15	1.50	3.50	5.00
20	0.20	3.50	3.70
25	0.15	3.50	3.65
30	0.00	3.50	3.50
35	0.00	3.50	3.50
40	0.00	3.50	3.50

3. Wage inflation: 3.50%

4. Payroll growth: 3.50%

B. Demographic Assumptions

1. Mortality rates (pre- and post-retirement) – The valuation assumes fully generational mortality. The base mortality table used is the RP-2014 Blue Collar Healthy Annuitant Generational Mortality Table. Future mortality improvements are assumed each year using the Ultimate MP Scale. The following are sample rates for 2018 (adopted May 2018):

Sample Attained Ages	Probability of Death Pre-Retirement	
	Men	Women
20	0.05 %	0.02 %
25	0.06	0.02
30	0.06	0.02
35	0.07	0.03
40	0.08	0.04
45	0.12	0.07
50	0.22	0.12
55	0.36	0.18
60	0.60	0.27
65	1.05	0.40
70	1.70	0.68
75	2.74	1.14
80	4.42	1.92
85	8.28	4.86
90	14.54	10.42

Sample Attained Ages	Probability of Death Post-Retirement	
	Men	Women
20	0.05 %	0.02 %
25	0.07	0.03
30	0.10	0.04
35	0.13	0.07
40	0.19	0.12
45	0.27	0.19
50	0.40	0.28
55	0.59	0.40
60	0.83	0.56
65	1.24	0.85
70	1.93	1.35
75	3.10	2.23
80	5.10	3.70
85	8.53	6.30
90	14.39	10.85

2. Mortality rates (post-disablement) – RP-2014 Disabled Male and Female No Collar Mortality Table. Future mortality improvements are assumed each year using the Ultimate MP Scale. Sample rates shown below (adopted May 2018):

Sample Attained Ages	Probability of Death Post-Disability	
	Men	Women
20	0.05 %	0.02 %
25	0.20	0.09
30	0.49	0.23
35	0.85	0.42
40	1.26	0.65
45	1.66	0.91
50	2.02	1.18
55	2.30	1.43
60	2.61	1.67
65	3.11	2.04
70	3.96	2.73
75	5.33	3.98
80	7.53	5.92
85	11.13	8.77
90	17.00	12.86

3. Disability rates. Sample rates shown below (adopted May 2018):

Sample Attained Ages	Probability of Disablement Next Year	
	Men	Women
25	0.02 %	0.02 %
30	0.03	0.03
35	0.05	0.05
40	0.08	0.08
45	0.13	0.13
50	0.22	0.22
55	0.42	0.42
60	0.60	0.60

4. Termination rates (for causes other than death, disability or retirement): Termination rates are based on service. Termination rates are not applied after a member becomes eligible for a retirement benefit. Rates at selected ages are shown (adopted May 2018):

Completed Years of Service	Probability of Termination Next Year	
	Men	Women
0	12.00 %	12.00 %
5	9.00	9.00
10	6.00	6.00
15	4.00	4.00
20	2.00	2.00
25	1.00	1.00
30	1.00	1.00
35	1.00	1.00

5. Retirement rates (adopted May 2018).

Age	Tier 1 Age-based	Tier 1 Rule-based	Tier 2 Age-based	Tier 2 Rule-based	Tier 3 Age-based	Tier 3 Rule-based
< 46	12.00%	12.00%				
46	12.00%	12.00%				
47	12.00%	12.00%				
48	12.00%	12.00%				
49	12.00%	12.00%				
50	15.00%	15.00%		20.00%		
51	15.00%	15.00%		15.00%		
52	15.00%	15.00%		15.00%		
53	15.00%	15.00%		15.00%		
54	15.00%	15.00%		15.00%		
55	15.00%	15.00%	15.00%	15.00%	15.00%	25.00%
56	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
57	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
58	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
59	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
60	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
61	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
62	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
63	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
64	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
65	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
66	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
67	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
68	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
69	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
70	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
71	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
72	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
73	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
74	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

C. Expense Loading. Based on the prior three year average, rounded to the nearest $1,000.

Year	Noninvestment Expenses		
2015	$687,810		
2016	837,324		
2017	636,159		
	$2,161,293	÷ 3 =	$720,431

Average	$720,431
Loading	$720,000

D. Other Assumptions

1. Percent married: 85% of employees are assumed to be married.

2. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

3. Cost of living adjustment: None.

4. Optional forms: Members are assumed to elect the normal form of benefit.

5. Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.

6. Current and future deferred vested participants are assumed to retire at the earlier of age 55 or the age they meet special early retirement eligibility. Deferred disabled participants are assumed to commence benefits at age 60.

7. Pay increase timing: Middle of year.

8. Decrement timing: Decrements of all types are assumed to occur mid-year.

9. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

10. Decrement relativity: Decrement rates are used directly, without adjustment for multiple decrement table effects.

11. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.

SECTION H

IMPACT OF BENEFIT AND ASSUMPTION CHANGES

IMPACT OF BENEFIT AND ASSUMPTION CHANGES

Exhibit H.1
Adams County Retirement Plan
Impact of Benefit and Assumption Changes Effective January 1, 2018

Fiscal Year Beginning	**January 1, 2018**	**January 1, 2018**	**January 1, 2018**	**January 1, 2017**
	After Benefit & Assumption Changes	After Benefit Changes Only	Before Benefit Changes	Before Benefit Changes
1. Actuarial Accrued Liability	$ 484,193,980	$ 458,708,070	$ 458,621,473	$ 440,035,366
2. Actuarial Value of Assets	259,301,061	259,301,061	259,301,061	246,434,159
3. Unfunded Accrued Liability	$ 224,892,919	$ 199,407,009	$ 199,320,412	$ 193,601,207
4. Funded Ratio	53.6%	56.5%	56.5%	56.0%
5. Normal Cost Rate	10.03%	8.98%	8.96%	9.21%
6. Amortization of Unfunded	13.61%	12.37%	12.37%	12.65%
7. Assumed Administrative Expenses	0.57%	0.57%	0.57%	0.64%
8. Total Annual Required Contribution	24.21%	21.92%	21.90%	22.50%