



October 21, 2016

Via E-mail

Mr. Robert Gunter, Finance Director
The City of Henderson
Henderson Municipal Center
222 1st Street, First Floor
Henderson, KY 42420-3181

RE: The City of Henderson Civil Service Pension Fund

Dear Robert:

Enclosing is the July 1, 2016 actuarial valuation report for The City of Henderson Civil Service Pension Fund.

This report contains a detailed description and the results of a valuation of The City of Henderson Civil Service Pension Fund as of July 1, 2016. The contents of this report recognize the Employee Retirement Income Security Act of 1974 (ERISA), Internal Revenue Service requirements, and reflect generally accepted actuarial principles.

Liabilities under GASB #67 are in a separate report.

The following is a brief description of the exhibits showing how the information is organized.

Plan Assets

Plan assets are funds that have accumulated and will be used to meet future benefit obligations.

Plan Liabilities

The Normal Cost and Unfunded Past Service Liability in Exhibit A compares plan liabilities and plan assets to show how future benefit obligations will be funded.

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Cost of Living Adjustments

The significant increase in plan liabilities assuming a three percent and five percent future cost-of-living adjustment is shown in Exhibit B.

Please refer to the Exhibit A regarding the range of contributions assuming no future cost-of-living adjustments. The anticipated annual benefit payment for the current year is \$159,768 and this is greater than the amortization of the unfunded past service liability for 20 years. It is recommended that tax revenues should be substantially greater than the anticipated annual benefit payment to reduce the unfunded past service liability.

The information and valuation results shown in this report are, to the best of our knowledge, complete and accurate and are based upon:

1. Employee census data as of July 1, 2016 submitted by The City of Henderson. This data was not audited by us, but appears to be sufficient and reliable for purposes of the report.
2. Financial data as of June 30, 2016 submitted by The City of Henderson. This data was not audited by us, but appears to be sufficient and reliable for purposes of the report.
3. Actuarial assumptions which, individually and in the aggregate, are reasonably related to the experience of the plan and to reasonable expectations and which represent our best estimate of anticipated experience under the plan.
4. Actuarial methods as stated in the report and our interpretation of plan provisions as summarized in the report.

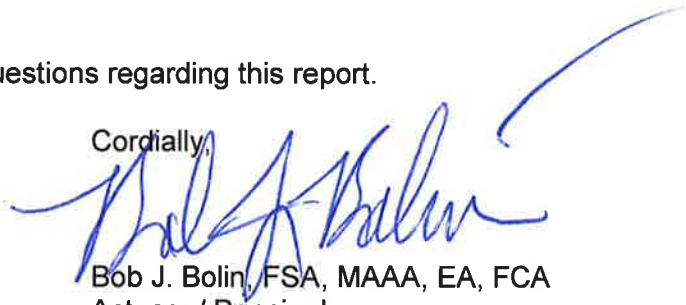
It is our opinion that this Actuarial Report is, to the best of our knowledge, complete and accurate. The actuarial methods and assumptions are applied on an objective basis, are reasonable individually and in the aggregate, and represent the Actuary's best estimate of future experience as required by the Employee Retirement Income Security Act of 1974. Therefore, the information contained in this Actuarial Report fully and fairly discloses the actuarial position of The City of Henderson Civil Service Pension Fund.

The undersigned actuary has met the Qualification Standards of the American Academy of Actuaries as required to render the actuarial opinion contained herein.

Mr. Robert Gunter, Finance Director
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October 21, 2016

Please let us know if you have any questions regarding this report.

Cordially,



Bob J. Bolin, FSA, MAAA, EA, FCA
Actuary / Principal

Enclosures

Newport Group

8350 North Central Expressway, Suite 900, Dallas, Texas 75206 | www.newportgroup.com

**ACTUARIAL VALUATION
FOR
THE CITY OF HENDERSON
CIVIL SERVICE PENSION FUND
AS OF JULY 1, 2016**



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City of Henderson Civil Service Pension

Exhibit A

Valuation Highlights for 2015 vs. 2016 Plan year

	<u>Current Year July 1, 2015</u>	<u>Current Year July 1, 2016</u>
1. Basic data included in Valuation		
a. Active employees	1	1
b. Individuals receiving benefits	9	9
c. Terminated with vested benefits	0	0
d. Total Participants	10	10
 2. Covered Payroll of Active Participants	 \$47,357	 \$46,415
 3. Monthly Retirement Income for Costs		
a. Active employees	1,973	1,939
b. Terminated with vested benefits	0	0
c. Individuals receiving benefits	14,608	13,314
d. Total retirement income	<u>16,581</u>	<u>15,253</u>
 4. Funding Valuation using Salary Increases		
a. Normal Cost as of Valuation Date	4,475	3,890
b. Past Service Liability	1,255,514	1,216,534
c. Value of Plan Assets	(1,334)	(2,552)
d. Unfunded Past Service Liability	1,256,848	1,219,085
 5. Contribution Range		
a. Normal Cost plus 10 year amortization of Unfunded Past Service Liability	167,243	161,767
b. Normal Cost plus 15 year amortization of Unfunded Past Service Liability	125,563	121,339
c. Normal Cost plus 20 year amortization of Unfunded Past Service Liability*	105,328	101,713

*The plan sponsor has adopted a funding policy of amortizing the unfunded past service liability over 20 years. This includes any changes in assumptions or experience gains or losses.

City of Henderson Civil Service Pension

Exhibit B

Impact of Annual Cost-of-Living Adjustments on July 1, 2016 Valuation Results

	No COLA	3% COLA	5% COLA
Present Value of All Benefits	\$1,236,278	\$1,474,214	\$1,735,107
Present Value of Future Normal Cost	19,744	36,431	39,579
Past Service Liability	1,216,534	1,437,783	1,689,568
Value of Plan Assets	(2,552)	(2,552)	(2,552)
Unfunded Past Service Liability	\$1,219,085	\$1,440,335	\$1,692,120
Normal (annual) Cost	3,890	4,629	5,786
Normal Cost plus Amortization of Unfunded Past Service Liability for the period indicated			
10 years	\$161,767	\$191,159	\$224,924
15 Years	\$121,339	\$143,394	\$168,809
20 Years	\$101,713	\$120,205	\$141,566

City of Henderson Civil Service Pension

Exhibit C

Financial Statement FYE 06/30/2016

Item

ASSETS

Cash	\$292.47
Investments	0.00
Receivables	
Due from General Fund	0.00
Accrued Interest	<u>0.00</u>
Total Assets	<u>292.47</u>

LIABILITIES

Accounts Payable	(2,844.00)
Due to Other Funds	<u>0.00</u>
Total Liabilities	(2,844.00)

NET ASSETS (2,551.53)

City of Henderson Civil Service Pension

Exhibit D

Statement of Income FYE 06/30/2016

Item

INCOME

Contributions

Employer \$175,315.81

Employee 2,315.81

Total 177,631.62

Tax Revenue 111.11

Investment Income 3.50

Total Income \$177,746.23

EXPENSES

All Benefits Paid (175,553.69)

Professional Services (3,410.00)

Trust Fees 0.00

Total Expenses (\$178,963.69)

NET INCOME (\$1,217.46)

Adjustment for prior year receivables 0.00

Beginning Assets July 1, 2015 (1,334.07)

Ending Assets June 30, 2016 (\$2,551.53)

THE CITY OF HENDERSON
CIVIL SERVICE PENSION FUND

EXHIBIT E

PLAN SPECIFICATIONS

Effective Date:	June 1, 1946
Governing Provisions:	City Code Sections 2-231 through 2-248
Eligibility:	Civil service employees hired on or prior to August 1, 1988 remain covered by this plan unless the employee elected to transfer pension coverage to the County Employees Retirement System (CERS). All civil service employees hired after August 1, 1988 are covered under CERS.
Retirement Date:	Anytime after completion of at least twenty (20) years of service and attainment of age 62 (60 if hired before 1980).
Retirement Benefit:	50% of average monthly salary based on the last seven (7) years of service.
Vesting:	A participant withdrawing from service prior to eligibility for retirement will receive a refund of his contributions, without interest.
Death Benefits:	The surviving spouse is entitled to immediate income equal to \$ 150 with total payments for ordinary death benefits not to exceed 1/20 th of the gross salary paid to the participant during the past two years times years of service up to 20. In addition, the participant's contributions are refunded to the spouse. Benefits are continued until the spouse remarries, and then to any dependent children until age 15.
Disability Benefits:	Benefit equal to 2½% (5% for accidental disability) of the participant's average monthly salary based on the last seven (7) years of service up to a maximum of 50% of average monthly salary. Ten years of service is required to qualify for ordinary benefits. No service requirement applies to accidental disability benefits.
Funeral Benefits:	When an active or retired participant dies, the board of trustees may pay a funeral benefit of not more than \$ 100.
Employee Contributions:	Each active participant contributes 5% of salary.

THE CITY OF HENDERSON
CIVIL SERVICE PENSION FUND

EXHIBIT E

ACTUARIAL ASSUMPTIONS

Investment Return: 5% compounded annually. Prior to the July 1, 2004 actuarial valuation, 8% compounded annually.

Salary Increases: 3% & 5% compounded annually.

Retirement Age: Completion of 20 years of service and age 62.

C.O.L.A.: 2%

Turnover: Scale T-3 from the Actuary's Pension Handbook

Age	Annual Rate (%)
30	4.8
40	3.8
50	1.5
60	0.0

Mortality: RP-2000 Mortality Table projected to the Valuation Date.
Disabled lives based upon the mortality table in Revenue Ruling 96-7.

Disability: None.

Pre-retirement Death Benefit: 100% marriage assumption with husbands three years older than their wives.

Asset Valuation Method: Market value.

Actuarial Cost Method: Entry Age Normal Method.



October 20, 2016
Via E-mail

Mr. Robert Gunter, Finance Director
The City of Henderson
Henderson Municipal Center
222 1st Street, First Floor
Henderson, KY 42420-3181

RE: GASB 67 for City of Henderson Civil Service Pension Fund at June 30, 2016

Attached are information and exhibits for preparing the notes to the Financial Statements for the City of Henderson.

Value of Investments: Investments are reported at fair market value.

Plan Description: This is a single employer defined benefit plan that provides pensions for full time employees that were hired prior to August 1, 1988.

Plan membership at June 30, 2016 is as follows:

Inactive members or beneficiaries receiving benefits:	9
Inactive members entitled to future benefits:	0
Active members:	<u>1</u>
Total	10

Benefits Provided: The Plan provides retirement, disability and death benefits. Plan members receive a benefit of 50% of 7-year average pay. Retirement age is 62 with a minimum of 20 years of service. Early and late retirement benefits are actuarially adjusted.

Contributions: The City contributes the cost calculated by an independent Actuary. Contributions are required by the active member. Such actuarially determined cost is the estimated amount necessary to finance the costs of benefits earned by the participants during the year with an additional amount to finance any unfunded accrued liability. The City contributes the difference between the actuarially determined cost and the contribution rate of the member. For the year ending June 30, 2016, the City contributed \$175,316.

Investment Categories:

<u>Asset Class</u>	<u>Allocation</u>
Cash	100.0%

Rates of Return: For the year ended June 30, 2016, the annual money-weighted rate of return on pension plan investments, net of expense, was 0.00%.

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Allocated Insurance Contracts: There are none.

Deferred Retirement Option Programs: None.

Net Pension Liability as of June 30, 2016:

Total Pension Liability	\$1,400,388
Plan Fiduciary Net Position	(2,552)
City's Net Pension Liability	1,402,940
Plan Fiduciary Net Position as a percentage of the total pension liability	-0.18%

Primary Actuarial Assumptions: The total pension liability was determined by an actuarial valuation as of June 30, 2016 using the following primary assumptions:

Inflation:	None
Cost of Living (COLA):	2%
Mortality:	RP-2015

Discount Rate: The discount rate used to measure the total pension liability was 5.0%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the City, calculated using the discount rate of 5.0%, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.0%) or 1-percentage-point higher (6.0%) than the current rate:

	1% Decrease 4.0%	Current Discount 5.0%	1% Increase 6.0%
City Net Pension Liability	\$1,525,025	\$1,400,388	\$1,302,368

Mr. Robert Gunter, Finance Director
The City of Henderson
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GASB 67 requires that the Actuary use realistic assumptions, therefore, the 2015 Mortality Table was used and a 2% COLA was assumed on future benefit payments.

If you or your Board members have any questions, please contact me.

Sincerely



Bob J. Bolin, FSA, MAAA, EA, FCA
Actuary / Principal

BJB/mht

City of Henderson Civil Service Pension Fund
 Amortization Schedules--June 30, 2015
 06/30/2015

Year Originated	Description	Amount	Remaining Life	Amortization	Remaining 06/30/2014	Remaining 06/30/2015	Remaining 06/30/2016
Deferred Inflows:							
06/30/2014	Difference in Expected and Actual Experience:	-22,477.82	11.000	(2,043)	-20,434.82	-2,043.00	-1,873.00
			Verify			-18,391.82	-16,518.82
06/30/2014	Difference in Actual Investment Earnings and Estimate:	N/A	-	-	0.00	0.00	
Deferred Outflows:							
06/30/2014	Changes in Actuarial Assumptions:	N/A	-	-	0.00	0.00	
06/30/2015	Changes in Actuarial Assumptions:	0.00			0.00	0.00	
06/30/2015	Difference in Expected and Actual Experience:	-125,109.98	10.000	(11,374)	0.00	-11,374.00	-11,374.00
			Verify			-113,735.98	-102,361.98
06/30/2015	Difference in Actual Investment Earnings and Estimate:	N/A	5.000	-	0.00	0.00	
06/30/2016	Difference in Expected and Actual Experience:	-15,112.50	12.000	(1,259)	0.00		-1,259.00
			Verify				-13,853.50
06/30/2016	Difference in Actual Investment Earnings and Estimate:	N/A	5.000	-	0.00	0.00	

-14,506.00

	06/30/2014	06/30/2015
Deferred Inflows:	-20,434.82	-18,391.82
Deferred Outflows:	0.00	0.00
Difference in Expected and Actual Experience:	0.00	-13,417.00
Difference in Actual Investment Earnings and Estimate:	0.00	0.00
Changes in Actuarial Assumptions:	0.00	0.00
Change in Deferred Inflows:		
Change in Deferred Outflows:		0.00
Pension Expense:		

City of Henderson Civil Service Pension Fund
FOR FISCAL YEAR ENDING June 30, 2016
GASB #67
Schedule of Changes in the Net Pension Liability and Related Ratios

	2016	2015*
Total Pension Liability		
Service cost	\$4,596	\$5,423
Interest	69,927	69,155
Changes of benefit terms	0	0
Differences between expected and actual experience	15,113	116,277
Changes of assumptions*	0	0
Benefit Payments	(175,554)	(175,297)
Net change in total pension liability	<u>(85,919)</u>	<u>15,558</u>
Total pension liability--beginning	1,486,307	1,470,749
Total pension liability--ending (a)	1,400,388	1,486,307
Plan Fiduciary Net Position		
Contributions---Employer	175,316	170,363
Contributions---Employee	2,316	2,363
Net investment income(c)	191	191
Benefit Payments	(175,554)	(175,297)
Administration expenses	(3,410)	(3,410)
Other	(77)	5,458
Net change in plan fiduciary net position	(1,218)	(332)
Plan fiduciary net position--beginning	(1,334)	(1,002)
Plan fiduciary net position--ending (b)	(2,552)	(1,334)
Net Pension Liability (a) - (b)	1,402,940	1,487,641
Plan fiduciary net position as a percentage of the total pension liability	-0.18%	-0.09%
Covered employee payroll	46,415	47,357
Net Pension Liability as a percentage of covered employee payroll	N/A	N/A

* Mortality assumption updated in 2015 and a 2% COLA was assumed

**City of Henderson Civil Service Pension Fund
Computation of Pension Expense -- June 30, 2016**

Components of Total Pension Expense under GASB #67

Service cost	4596
Interest on Total Pension Liability	
(a) Total Pension Liability	\$1,486,307
(b) Expected distributions, weighted for timing	87,777
(c) Average expected Liability (a) - (b)	1,398,530
(d) Discount Rate	5%
(e) Interest Cost (d) x (c)	69,927
Differences between expected and actual experience	14,506
Changes of assumptions	0
Projected earnings on pension plan investments	0
Differences between projected and actual earnings on plan investments	0
Pension plan administrative expense	3,410
Other changes in fiduciary net position	
Total pension expense	92,439
Interest Rate	5%

City of Henderson Civil Service Pension Fund
Schedule of Contributions
Last 10 Years

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially Determined Contribution	\$ 105,328	\$ 107,411	\$ 116,630	\$ 127,460	\$ 116,436	\$ 112,188	\$ 99,171	\$ 111,784	\$ 116,421	\$ 122,033
Contribution in relation to the actuarially determined contribution	\$ 175,316	\$ 170,363	\$ 196,456	\$ 216,307	\$ 221,287	\$ 152,624	\$ 12,586	\$ 271,333	\$ 238,636	\$ 136,257
Contribution deficiency (excess)	\$ (69,988)	\$ (62,952)	\$ (79,826)	\$ (88,847)	\$ (104,851)	\$ (40,436)	\$ 86,585	\$ (159,549)	\$ (122,215)	\$ (14,224)
Covered Payroll	\$ 46,415	\$ 47,357	\$ 44,550	\$ 43,171	\$ 42,867	\$ 36,899	\$ 36,005	\$ 35,277	\$ 41,424	\$ 29,702
Contribution as a percentage of covered employee payroll	377.71%	359.74%	440.98%	501.05%	516.22%	413.63%	34.96%	769.15%	576.08%	458.75%

Notes:

Methods and Assumptions:

Actuarial Cost Method	Entry Age
Asset Valuation Method	Market Value
Withdrawal	T -3
Salary Increases	5%
Investment Rate of Return	5%
Retirement Age	62
Mortality	In the 2015 actuarial valuation, the assumed life expectancies are according to the RP-2015 Mortality Table
COLA	2%