

City of Taylor General Employees Retirement System

Actuarial Valuation Report
as of December 31, 2016



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July 20, 2018

Board of Trustees
City of Taylor General
Employees Retirement System
Taylor, Michigan

Ladies and Gentlemen:

The results of the December 31, 2016 Actuarial Valuation of the City of Taylor General Employees Retirement System are presented in this report. The purpose of the annual valuation is to measure the System's funding progress and to determine the City's contribution amount for the fiscal year beginning July 1, 2018 in accordance with established funding policies. The results of the valuation may not be applicable for other purposes.

GASB Statement No. 67 was issued in the report dated October 27, 2017 for December 31, 2016.

This report should not be relied on for any purposes other than those described above. It was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be distributed to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

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. This report does not contain an analysis of the potential range of such future measurements.

A summary of valuation results, comments, and conclusions are contained in Section A. The required contribution amount shown on page A-1 may be considered as a minimum contribution that complies with the City's/Board's funding policy. Users of this report should be aware that contributions made for this amount do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the Plan in excess of those presented in this report be considered.

The contribution amount in this report is determined using the actuarial assumptions and methods disclosed in Section C of this report. This report does not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of the 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.

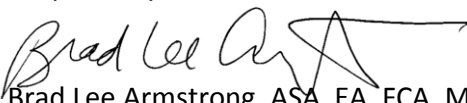
The valuation was based upon information, furnished by the City, concerning individual participants, terminated participants, retired participants and beneficiaries, plan benefits and financial transactions and assets. Data was checked for reasonableness and missing information, but was not audited. GRS is not responsible for the accuracy or completeness of the data provided. This information is summarized in Section B.

Descriptions of the actuarial valuation process, actuarial assumptions and definitions of technical terms are contained in Section C.

This report has been prepared by individuals who have substantial experience valuing public employee retirement systems. We certify that the information contained in this report is accurate and fairly presents the actuarial position of the City of Taylor General Employees Retirement System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuarial assumptions used for the valuation produce results which are reasonable.

Brad Lee Armstrong is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing individuals are independent of the plan sponsor.

Respectfully submitted,


Brad Lee Armstrong, ASA, EA, FCA, MAAA


David L. Hoffman

BLA/DLH:sc



SECTION A

VALUATION RESULTS, COMMENTS AND CONCLUSIONS

**Computed City Contributions
for the Fiscal Year Beginning July 1, 2018
Actuarial Valuation as of
December 31, 2016**

	<u>PVFB</u>	<u>EAN AAL[#]</u>	<u>PVFNC[@]</u>
1. Actuarial Present Value of Future Benefits (PVFB):			
- Active	\$ 13,347,177	\$ 12,408,140	\$ 939,037
- Retired & Terminated Vested	<u>\$ 70,467,083</u>	<u>\$ 70,467,083</u>	<u>\$ -</u>
- Total	\$ 83,814,260	\$ 82,875,223	\$ 939,037
2. Funding Value of Assets	\$ 40,450,820	<u>\$ 40,450,820</u>	
3. Unfunded PVFB (1) - (2)	\$ 43,363,440	\$ 42,424,403	
4. Actuarial Present Value of Future Employee Contributions	\$ 644,626		
5. Remaining Unfunded PVFB After Recognition of Future Employee Contributions (3) - (4)	\$ 42,718,814		
6. (5) x 1.075 ^{0.75} as of 10/1/2017, minus \$3,771,228 Contribution	\$ 41,328,667		
	<u>21 years</u>		
7. Amortization Period for Funding	11.194491		
8. City's Annual Normal Cost * (6) / (7) x 1.075	\$ 3,968,766		

* This is expected to be contributed on October 1, 2018. If contributions are delayed, interest should be added at a rate of .00604 for each month of delay.

Entry Age Normal Cost Method for purposes of GASB No. 50 reporting. Refer to page A-4.

@ Present Value of Future Normal Cost under Entry Age Normal Actuarial Cost Method.

Projection of Required Contributions as of December 31, 2016

Valuation Date	Contribution for Fiscal Year Beginning	21-Year Amortization	
		Unfunded Present Value of Benefits*	Projected Annual Dollar Contribution#
12/31/2015	7/1/2017	\$ 43,162,314	\$ 3,771,228
12/31/2016	7/1/2018	42,718,814	3,968,766
12/31/2017	7/1/2019	42,247,025	3,985,784
12/31/2018	7/1/2020	42,361,733	4,090,452
12/31/2019	7/1/2021	42,189,192	4,167,552
12/31/2020	7/1/2022	41,283,866	4,178,247
12/31/2021	7/1/2023	40,204,481	4,186,090
12/31/2022	7/1/2024	39,007,988	4,191,191
12/31/2023	7/1/2025	37,688,436	4,193,344
12/31/2024	7/1/2026	36,252,038	4,193,945
12/31/2025	7/1/2027	34,702,644	4,194,157
12/31/2026	7/1/2028	33,034,539	4,194,108
12/31/2027	7/1/2029	31,240,098	4,193,899
12/31/2028	7/1/2030	29,310,695	4,193,604
12/31/2029	7/1/2031	27,236,626	4,193,252
12/31/2030	7/1/2032	25,007,215	4,192,845
12/31/2031	7/1/2033	22,610,916	4,192,376
12/31/2032	7/1/2034	20,035,290	4,191,827
12/31/2033	7/1/2035	17,266,962	4,191,162
12/31/2034	7/1/2036	14,291,564	4,190,303
12/31/2035	7/1/2037	11,093,687	4,189,059
12/31/2036	7/1/2038	7,656,843	4,186,657
12/31/2037	7/1/2039	3,963,503	0

* Years before 12/31/2016 represent projected amounts as of the corresponding valuation date.

Years after 12/31/2016 represent projected amounts for the corresponding fiscal year.

Comments

Comment A: The Retirement System is closed to new members, but the existing members' benefits are not fully funded yet. The System's assets plus future employee contributions are not sufficient to pay for the present value of future benefits expected to be paid as shown from the valuation results on page A-1. Therefore, it is necessary for the City to make contributions in order to fund the benefit promises of the remaining active and retired members. The computed City contribution of \$3,968,766 based on a 21-year amortization period, reflects an increase of \$141,232 for the fiscal year beginning July 1, 2018 when compared to the fiscal year beginning July 1, 2017, and an increase of \$135,267 when compared to the projection from last year. If the City's contribution was computed using the Market Value of Assets, the amount would have been \$4,146,461.

The December 31, 2016 valuation reflects a change in the mortality assumptions to the RP-2014 Healthy Annuitant mortality table, projected from 2006 to 2025 with Scale MP-2017. The effect of this change was an increase of approximately \$2,500 in the computed City contribution rate.

Comment B: The auditors have not included the Allmerica assets in Retirement System assets since 12/31/2005. The Board should ask the auditor to review their position on this for purposes of GASB 67. The entirety of this report does not include any liabilities associated with purchased annuities from Allmerica.

Comment C: On page A-4 of this report, we have developed the entry age actuarial accrued liability as of December 31, 2016 for historical comparisons. This is a method of reporting that measures funding progress. This has no effect on contributions or obligations of the General Employees Retirement System. Calculations required for compliance with the Governmental Accounting Standards Board (GASB) Statement No. 67 were issued in a separate report dated October 27, 2017.

Comment D: Liabilities associated with the post-retirement health care benefits are not recognized in this report. Based on our understanding of MI P.A.28, IRC 401(h) and IRC 420, expenditures for health care are not available from Retirement System assets for fiscal year 2017/2018. We continue to recommend the City of Taylor establish a separate trust to provide post-retirement health care benefits for General, Police and Firefighter groups.

Comment E: We have shown the Board adopted 21 year amortization period for the December 31, 2016 valuation. This is a reduction of 3 years from last year's 24 year amortization period. We recommend the Board continue to consider future accelerations (i.e., reductions of greater than one year) to the amortization period. An annual review of the assumed rate of investment return can be performed in conjunction with this assessment.

Comment F: It is important to note that this does not include the value of the annuity purchases for certain prior retirees and beneficiaries. The Board should consider the inclusion of the value of these annuities for the purposes of State reporting.

Required Supplementary Information

Schedule of Funding Progress

(\$ Amounts in Millions)

Actuarial Valuation Date	Actuarial Value of Assets# (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b)-(a)	Funded Ratio (a)/(b)	Active Member Covered Payroll (c)	Unfunded AAL as a Percentage of Active Member Covered Payroll ((b-a)/c)
12/31/1992	\$40.5	\$40.5	-	100%	\$ 6.2	-
12/31/1994	42.6	42.6	-	100	6.6	-
12/31/1995	48.7	48.7	-	100	7.4	-
12/31/1996	51.1	51.1	-	100	7.3	-
12/31/1997	55.3	55.3	-	100	7.2	-
12/31/1998	58.6	58.6	-	100	7.4	-
12/31/1999	62.5	62.5	-	100	7.8	-
12/31/2000	62.3	62.3	-	100	9.8	-
12/31/2001	60.6	60.6	-	100	10.0	-
12/31/2002	57.3	57.3	-	100	10.3	-
12/31/2003	55.5	55.5	-	100	10.1	-
12/31/2004	54.1	54.1	-	100	10.3	-
12/31/2005	52.8	52.8	-	100	10.1	-
12/31/2006 *	49.4	64.8	\$15.4	76	8.4	183.8 %
12/31/2007 *	51.6	67.4	15.8	77	8.1	195.1
12/31/2008 *	50.5	70.4	19.9	72	8.1	245.7
12/31/2009 *	49.5	71.0	21.5	70	7.1	302.8
12/31/2010 *@	47.7	72.2	24.5	66	5.6	437.5
12/31/2011	45.2	72.5	27.3	62	4.9	557.1
12/31/2012 ^	42.2	72.3	30.1	58	3.8	792.1
12/31/2013 ^	41.5	77.5	36.0	54	3.4	1,058.8
12/31/2014 ^	41.0	81.9	40.9	50	3.8	1,076.3
12/31/2015	40.1	82.9	42.8	48	3.5	1,222.9
12/31/2016	40.5	82.9	42.4	49	3.2	1,325.0
12/31/2016 ^	40.5	82.9	42.4	49	3.2	1,325.0

Prior to the 12/31/96 valuation, assets are reported on a cost basis. Prior to the 12/31/2001 valuation, assets are reported as market value. Beginning with the 12/31/2001 valuation, assets are based on a 5-year smoothed market value.

* Reflects Aggregate cost method through 12/31/2005, and entry age normal actuarial cost method thereafter.

@ After changes in benefit provisions.

^ After changes in actuarial assumptions.

Contributions Required and Contributions Made

The City's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of covered payroll, are designed to accumulate sufficient assets to pay benefits when due. The contribution requirements are determined using an aggregate actuarial cost method. Unfunded employer present value of benefits is being amortized over a remaining closed amortization period.

During the year ended December 31, 2016, contributions totaling \$3,694,440 -- \$3,530,436 employer and \$164,004 employee -- were made in accordance with contribution requirements determined by an actuarial valuation of the Fund as of December 31, 2014. The employer contributions consisted of \$3,530,436 for normal cost and \$0 for amortization of the unfunded actuarial accrued liability.

Summary of Actuarial Methods and Assumptions

	For City Contributions during Plan Year Ending	
	December 31, 2018	December 31, 2017
Valuation Date	December 31, 2016	December 31, 2015
Actuarial Cost Method	Aggregate	Aggregate
Amortization Method	Level dollar, closed	Level dollar, closed
Remaining Amortization Period	21 years	24 years
Asset Valuation Method	5-year smoothed market value	5-year smoothed market value
Actuarial Assumptions:		
Investment Rate of Return*	7.50%	7.50%
Projected Salary Increases*	1.00%	1.00%
* Includes Inflation	2.50%	2.50%

SECTION B

VALUATION DATA

Reported Fund Balance (Market Value)

	Reported Fund Balance	
	12/31/2016	12/31/2015
Fund for Active Employees and for Pension Payments Being Paid by the Plan	\$ -	\$ -
Reserve for Pension Payments Being Paid Directly by Allmerica	-	-
Merrill Lynch Accounts		
-Active Reserve (\$2,513,419 member contributions)	\$ 2,513,419	\$ 2,589,882
-Terminated Vested Reserve	3,663,566	3,331,795
-Retired Reserve	66,803,517	66,628,090
Excess of Reserves over Assets	(34,282,405)	(34,155,859)
Total Fund Balance	\$ 38,698,097	\$ 38,393,908

Valuation assets are equal to reported market value of assets.

Accounts consisted of:

	12/31/2016*
Cash and cash equivalents	\$ 2,588,493
Investments	
Domestic Equity	19,628,731
International Equity	4,974,755
Domestic Fixed Income	8,145,634
Global Fixed Income	2,129,771
Real Estate	150,206
Non Core Fixed	1,125,000
Payables	(44,493)
Total Assets	\$ 38,698,097

* From the December 31, 2016 AndCo Consulting Investment Performance Review report except Payables.

Reported Revenues and Expenses for the Period 1/1/2016 – 12/31/2016

		Market Value of Assets
		<u>December 31, 2016</u>
Balance - January 1	\$	38,393,908
 Revenues		
Contributions		3,694,440
Investment income		2,070,956
Interest & Dividends		875,385
 Expenses		
Benefit payments		6,089,417
Investment expenses		181,392
Administrative expenses		<u>65,783</u>
 Balance - December 31	 \$	 38,698,097

Derivation of Funding Value of Assets Market Value with 20% Recognition of Excess Investment Income

	2013	2014	2015	2016
Beginning of Year Values				
(1) Market Value	\$ 39,728,009	\$ 42,935,976	\$ 41,373,986	\$ 38,393,908
(2) Funding Value	42,189,149	41,489,459	40,981,060	40,066,196
End of Year				
(3) Market Value	42,935,976	41,373,986	38,393,908	38,698,097
(4) Net Addition to Assets Excluding Investment Income#	(3,994,172)	(3,292,557)	(2,864,360)	(2,460,760)
(5) Total Net Investment Income# = (3) - (1) - (4)	7,202,139	1,730,567	(115,718)	2,764,949
(6) Projected Net Rate of Return#	8.00%	8.00%	7.50%	7.50%
(7) Projected Investment Income = (6) x [(2) + 0.5 x (4)]	3,215,365	3,187,454	2,966,166	2,912,686
(8) Investment Income in Excess of Projected	3,986,774	(1,456,887)	(3,081,884)	(147,737)
Excess Investment Income Recognized				
(9a) Current Year = .20 x (8)	797,355	(291,377)	(616,377)	(29,547)
(9b) One Year Prior	72,644	797,355	(291,377)	(616,377)
(9c) Two Years Prior	(978,914)	72,644	797,355	(291,377)
(9d) Three Years Prior	(3,003)	(978,914)	72,644	797,355
(9e) Four Years Prior	191,035	(3,004)	(978,915)	72,644
(9f) Total Cap. Val. Change Recognition = (9a) + (9b) + (9c) + (9d) + (9e)	79,117	(403,296)	(1,016,670)	(67,302)
(10) Increase (Decrease) in Funding Value = (4) + (7) + (9f)	(699,690)	(508,399)	(914,864)	384,624
End of Year				
(11) Market Value	\$ 42,935,976	\$ 41,373,986	\$ 38,393,908	\$ 38,698,097
(12) Funding Value = (2) + (10)	\$ 41,489,459	\$ 40,981,060	\$ 40,066,196	\$ 40,450,820
(13) Funding Value Rate of Return	8.2%	7.0%	4.9%	7.3%
(14) Funding Value / Market Value	97%	99%	104%	105%

Net of investment expenses.

The derivation of Valuation Assets recognizes projected investment income (line 7) fully each year. Differences between total and projected investment income (line 8) are phased-in over a closed 5-year period. During periods when investment performance exceeds the projected rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will be greater than Market Value. The Valuation Assets are unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If actual and projected rates of investment income are exactly equal for 4 consecutive years, Valuation Assets will be equal to Market Value.

Total Actives - December 31, 2016 by Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
35-39			1	7				8	\$ 425,009
40-44				1	2			3	206,175
45-49				10	7	2		19	1,237,743
50-54			1	5	2			8	427,969
55-59			1	5	3	1		10	575,294
60 & Over				3	1	1		5	281,646
Totals			3	31	15	4		53	\$ 3,153,836

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Group Averages:

Age: 48.9 years

Service: 19.4 years

Annual Pay: \$59,506

FLIC Retirees and Beneficiaries (Non-Purchased Annuities) Tabulated by Attained Ages

Attained Ages	No.	Annual Pensions
42	2	\$ 60,689
43	1	13,541
45	4	61,492
46	2	14,204
48	1	24,756
49	1	11,165
50	2	85,194
51	3	73,281
52	2	33,223
53	7	114,561
54	5	109,061
55	7	183,856
56	3	31,967
57	7	239,728
58	5	90,577
59	11	254,685
60	13	333,981
61	12	372,123
62	10	376,380
63	12	258,749
64	7	191,890
65	10	265,590
66	9	343,883
67	14	508,162
68	7	244,803
69	8	164,985
70	9	160,344
71	7	140,746
72	8	182,444
73	8	140,273
74	8	161,639
75	6	144,682
76	14	351,899
77	2	35,518
78	3	44,503
79	8	207,205
80	3	43,154
81	7	175,014
82	5	189,203
83	1	19,177
85	1	26,604
86	3	99,788
87	2	86,675
88	1	126,174
Totals	261	\$6,797,568

**Terminated Vested Members
Tabulated by Attained Ages
December 31, 2016**

Attained Ages	Estimated	
	No.	Annual Benefits*
36	1	\$ 19,568
40	2	23,026
41	1	14,010
43	1	11,857
44	1	16,266
45	1	28,331
46	6	107,675
48	2	59,304
49	1	7,450
51	4	141,532
52	2	38,964
55	1	29,505
56	1	8,979
Totals	24	\$506,467

** New deferred member benefits were estimated for the December 31, 2016 valuation.*

SECTION C

VALUATION ASSUMPTIONS

Valuation Assumptions

The rate of investment return (net of investment expenses) used in the valuation was 7.5%. This rate consists of 2.75% for price inflation and 4.75% for real rate of return. This assumption was first used in the December 31, 2014 valuation.

The annual rate of salary increase used in the valuation was 1.0%. This assumption was first used in the December 31, 2014 valuation.

The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the RP-2014 Healthy Annuitant mortality table, projected from 2006 to 2025 with Scale MP-2017. Related values are shown below. This assumption is used to measure the probabilities of each benefit payment being made after retirement.

The pre-retirement mortality table used was the RP-2014 Employee mortality table, projected from 2006 to 2025 with Scale MP-2017. The pre-retirement mortality table used for Long-Term Disability (LTD) members was the RP-2014 Disabled mortality table, projected from 2006 to 2025 with Scale MP-2017.

This assumption was first used in the December 31, 2016 valuation.

Sample Ages	Single Life Values					
	Present Value of \$1 Monthly for Life		Percent Dying Next Year		Future Life Expectancy (Years)	
	Men	Women	Men	Women	Men	Women
50	\$142.60	\$146.52	0.3850%	0.2613%	32.61	35.08
55	136.11	140.57	0.5415%	0.3632%	28.29	30.56
60	128.02	133.01	0.7688%	0.5516%	24.10	26.17
65	118.10	123.65	1.1222%	0.8243%	20.09	21.96
70	106.10	112.10	1.6708%	1.2539%	16.29	17.93
75	91.94	98.20	2.6245%	2.0174%	12.75	14.15

Valuation Assumptions

Sample Rates of Separation from Active Employment Before Retirement, Death or Disability

Sample Ages	Percent of Active Members Separating within Next Year
20	7.94%
25	7.72
30	7.22
35	6.28
40	5.15
45	3.98
50	2.56
55	0.94
60	0.09

Probabilities of Becoming Disabled

Sample Ages	Percent Becoming Disabled During Next Year	
	Men	Women
20	0.07%	0.03%
25	0.09	0.05
30	0.10	0.07
35	0.14	0.13
40	0.21	0.19
45	0.32	0.28
50	0.52	0.45
55	0.92	0.76

Valuation Assumptions

The **normal retirement** assumption used in the valuation was as follows:

For all members from Local 1128 AFSCME and Local 1917:

Retirement Ages	Percent of Active Members Retiring within Next Year
50	50%
51	50%
52	50%
53	50%
54	50%
55	50%
56	10%
57	10%
58	10%
59	10%
60	100%

All other members were assumed to retire at their earliest normal retirement age.

The **early retirement** assumption used in the valuation was as follows:

For members in Local 1128 AFSCME and Local 1917 hired on or after 8/4/88, an early retirement rate of 5% was assumed for 5 years prior to normal retirement.

For members in all other groups, an early retirement rate of 5% was assumed for 7 years prior to normal retirement.

The **actuarial cost method** used in the valuation was the Aggregate Cost Method.

Assets and liabilities held by Allmerica were excluded effective with the 2006 report.

Summary of Assumptions Used

December 31, 2016

Miscellaneous and Technical Assumptions

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
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.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service. Disability and separation do not operate during retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Loads:	The present value of future benefits for actives was loaded by 1.5% for groups that include vacation and sick leave banks in final average compensation.
Incidence of Contributions:	City contributions are assumed to be received 21 months after the valuation date. New entrant normal cost contributions, if any, will be computed annually as they occur.
Option Factors:	Option factors are based upon an assumed rate of investment return of 7.5%, and a unisex mortality table based upon a 50% blend of the RP-2014 male and female healthy annuitant mortality tables.

Definitions of Technical Terms

Actuarial Accrued Liability. The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as “past service liability.”

Actuarial Assumptions. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future benefits” between future normal costs and actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Equivalent. One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

Actuarial Gain (Loss). The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

Actuarial Present Value. The amount of funds currently required to provide a series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments.

Aggregate Cost Method is a method where the Actuarial Present Value of Projected Benefits of the group included in the valuation, less the sum of the Funding Value of Assets and the Actuarial Present Value of Future Member Contributions is allocated over a future scheduled period. This allocation is performed for the group as a whole, not as a sum of individual allocations. The portion of this Actuarial Present Value allocated to a specific year is called the **City’s Annual Normal Cost**. Under this method, actuarial gains (losses) reduce (increase) future Normal Costs.

Definitions of Technical Terms (Concluded)

Funding Value of Assets. Also referred to as actuarial value of assets, smoothed market value of assets, or valuation assets.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, valuation assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, valuation assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, valuation assets will become equal to market value.

Normal Cost. The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as “current service cost.”

Unfunded Actuarial Accrued Liabilities. The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as “unfunded past service liability” or “unfunded supplemental present value.”

SECTION D

SUMMARY OF BENEFIT PROVISIONS

Brief Summary of Benefit Provisions Applicable to Local 1128 AFSCME (for Members Hired Before 8/4/88)

Normal Retirement

Eligibility - Earlier of: (a) Age 55 with 8 or more years of service (10 or more years if hired after 8/1/82), and (b) 25 years of service.

Annual Amount - In accordance with the following:

<u>Years of Service</u>	<u>Annual Benefit as a % of Final Average Earnings</u>
8 or more (hired before 8/1/82)	55.00%
10 or more (hired after 8/1/82)	55.00

Type of Final Average Compensation - Average of best 5 years prior to retirement date.

Early Retirement

Eligibility - Earlier of: (a) Age 48 with 8 or more years of service (10 or more years if hired after 8/1/82), and (b) 18 years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date, multiplied by a fraction made up of the number of years of service at early retirement divided by the number of years of potential service at normal retirement, and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Any age after normal retirement date.

Annual Amount - Computed as a normal retirement benefit but increased by 2% of final average compensation at late retirement date for each year worked between the normal retirement date and the late retirement date.

Deferred (Vested) Retirement

Eligibility - 8 or more years of service (10 or more years if hired after 8/1/82). Benefit commences at age 55.

Annual Amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Brief Summary of Benefit Provisions Applicable to Local 1128 AFSCME (for Members Hired Before 8/4/88) (Concluded)

Death Before Retirement Benefits

Eligibility - Death while actively employed after 8 or more years of service (10 or more years if hired after 8/1/82). Payable to the employee's spouse for life.

Annual Amount - Equal to 50% of the retirement benefit the employee could have received if eligible for retirement at date of death. If the employee is not eligible to retire at date of death, the benefit begins at earliest date the employee could have retired had the employee survived. If the employee is not married at date of death, or has less than the required years of service, the employee's named beneficiary will receive a refund of employee's contributions with interest.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - No age or service requirement, but must be eligible to receive Social Security Disability Benefits.

Annual Amount - 66 2/3% of earnings with a maximum benefit of \$2,000/month. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation.

Interest on Member Contributions - 5% Annually.

Brief Summary of Benefit Provisions Applicable to Local 1917 (for Members Hired Before 8/4/88)

Normal Retirement

Eligibility - Earlier of: (a) Age 55 with 8 or more years of service and (b) 25 years of service.

Annual Amount - In accordance with the following:

<u>Years of Service</u>	<u>Annual Benefit as a % of Final Average Earnings</u>
8 or more	55.00%

Type of Final Average Compensation - Average of best 5 years prior to retirement date.

Early Retirement

Eligibility - Earlier of: (a) Age 48 with 8 or more years of service and (b) 18 years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Any age after normal retirement date.

Annual Amount - Computed as a normal retirement benefit but actuarially increased to reflect late retirement on the basis of the factors specified in Table H, and based on final average compensation at late retirement date.

Deferred (Vested) Retirement

Eligibility - 8 or more years of service. Benefit commences at age 55.

Annual amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Brief Summary of Benefit Provisions Applicable to Local 1917 (for Members Hired Before 8/4/88) (Concluded)

Death Before Retirement Benefits

Eligibility - Death while actively employed after 8 or more years of service. Payable to the employee's spouse for life.

Annual Amount - Equal to 50% of the retirement benefit the employee could have received if eligible for retirement at date of death. If the employee is not eligible to retire at date of death, the benefit begins at earliest date the employee could have retired had the employee survived. If the employee is not married at date of death, or has less than the required years of service, the employee's named beneficiary will receive a refund of employee's contributions with interest.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - No age or service requirement, but must be eligible to receive Social Security Disability Benefits.

Annual Amount - 66 2/3% of earnings with a maximum benefit of \$1,500/month. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation.

Interest on Member Contributions - 5% Annually.

Brief Summary of Benefit Provisions Applicable to Taylor Governmental Management and Administrative Employees Association (for Members Hired Before 5/18/88)

Normal Retirement

Eligibility - Age 55 with 4 or more years of service or any age with 25 or more years of service.

Annual Amount - In accordance with the following:

Years of Service	Annual Benefit as a % of Final Average Earnings
4	30.00%
5	36.25
6	42.50
7	48.75
8	55.00
9	55.00
10	55.00
11	55.00
12	55.00
13 or more	65.00

Type of Final Average Compensation - Average of best 5 years prior to retirement date.

Early Retirement

Eligibility - Any age with 4 or more years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Anytime following eligibility for normal retirement and having attained 13 years of service.

Annual amount - Computed as a normal retirement benefit but actuarially increased to reflect late retirement on the basis of the factors specified in Table H, and based on final average compensation at late retirement date.

Brief Summary of Benefit Provisions Applicable to Taylor Governmental Management and Administrative Employees Association (for Members Hired Before 5/18/88) (Concluded)

Deferred (Vested) Retirement

Eligibility - 4 or more years of service. Benefit commences at age 55.

Annual amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Death Before Retirement Benefits

Eligibility - Death while actively employed after 4 or more years of service. Payable to the employee's spouse for life.

Annual Amount - If an employee who is vested in the pension plan dies prior to retirement, his/her beneficiary will receive the employee's accrued pension benefit for life actuarially adjusted based on the age of the beneficiary at the time the benefit is paid. Beneficiary shall be defined as: spouse or (in the absence of a spouse) minor children until the age of 21.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - No age or service requirement, but must be eligible to receive Social Security Disability Benefits.

Annual Amount - 66 2/3% of earnings with a maximum benefit of \$2,000/month. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation.

Interest on Member Contributions - 2% Annually.

Brief Summary of Benefit Provisions Applicable to Elected Officials (for Members Elected Before 11/27/89)

Normal Retirement

Eligibility - Age 55 with 4 or more years of service or any age with 25 or more years of service.

Annual Amount - In accordance with the following:

<u>Years of Service</u>	<u>Annual Benefit as a % of Final Average Earnings</u>
4	30.00%
5	36.25
6	42.50
7	48.75
8	55.00

Type of Final Average Compensation - Average of best 5 years prior to retirement date.

Early Retirement

Eligibility - Any age with 4 or more years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Anytime following eligibility for normal retirement and having attained 8 years of service.

Annual amount - Computed as a normal retirement benefit but actuarially increased to reflect late retirement on the basis of the factors specified in Table H, and based on final average compensation at late retirement date.

Deferred (Vested) Retirement

Eligibility - 4 or more years of service. Benefit commences at age 55.

Annual amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Brief Summary of Benefit Provisions Applicable to Elected Officials (for Members Elected Before 11/27/89) (Concluded)

Death Before Retirement Benefits

Eligibility - Death while actively employed after 4 or more years of service. Payable to the employee's spouse for life.

Annual Amount - Equal to 50% of the retirement benefit the employee could have received if eligible for retirement at date of death. If the employee is not eligible to retire at date of death, the benefit begins at earliest date the employee could have retired had the employee survived. If the employee is not married at date of death, or has less than 4 years of service, the employee's named beneficiary will receive a refund of employee's contributions with interest.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - No age or service requirement, but must be eligible to receive Social Security Disability Benefits.

Annual Amount - 66 2/3% of earnings with a maximum benefit of \$2,000/month. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation.

Interest on Member Contributions - 5% Annually.

Brief Summary of Benefit Provisions Applicable to Local 1128 AFSCME (for Members Hired On or After 8/4/88)

Normal Retirement

Eligibility - Age 55 with 10 or more years of service; or age 50 and 25 or more years of service beginning January 1, 2009. Employees hired after 12/22/2004 are not eligible to participate.

Annual Amount - 2.2% of Final Average Compensation per year of service to a maximum of 25 years of service.

Type of Final Average Compensation - Average of best 5 consecutive years prior to retirement date, excluding vacation, sick leave and other banks.

Early Retirement

Eligibility - Age 50 with 10 or more years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Age 55 and 10 or more years of service; or age 50 and 25 or more years of service beginning January 1, 2009.

Annual Amount - Computed as a normal retirement benefit but increased by 2.2% of final average compensation per year of service worked between the normal retirement date and the late retirement date.

Deferred (Vested) Retirement

Eligibility - 10 or more years of service. Benefit commences at age 55.

Annual Amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Brief Summary of Benefit Provisions Applicable to Local 1128 AFSCME (for Members Hired On or After 8/4/88) (Concluded)

Death Before Retirement Benefits

Eligibility - Death while actively employed after 10 or more years of service. Payable to the employee's spouse or dependent child(ren).

Annual Amount - Refund of employee's contributions or 50% of the employee's vested benefit, whichever is higher. If the employee is not eligible to retire at date of death, the benefit begins at the earliest date the employee could have retired had the employee survived. If the employee is not married nor has any dependent child(ren) at date of death, or has less than the required years of service, the employee's named beneficiary will receive a refund of employee's contributions.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - 10 years of service credited in System, and must be eligible to receive Social Security disability benefits.

Annual Amount - 2% of final average compensation per year of service. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions

5% of compensation, excluding cash payouts for vacation banks, sick leave banks and all other banks.

Brief Summary of Benefit Provisions Applicable to Local 1917 (for Members Hired On or After 8/4/88)

Normal Retirement

Eligibility - Age 55 with 10 or more years of service; or age 50 and 25 or more years of service beginning January 1, 2009. Employees hired after 12/22/2004 are not eligible to participate.

Annual Amount - 2.2% of Final Average Compensation per year of service to a maximum of 25 years of service.

Type of Final Average Compensation - Average of best 5 consecutive years prior to retirement date, excluding vacation, sick leave and other banks.

Early Retirement

Eligibility - Age 50 with 10 or more years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Age 55 and 10 or more years of service; or age 50 and 25 or more years of service beginning January 1, 2009.

Annual Amount - Computed as a normal retirement benefit but actuarially increased to reflect late retirement on the basis of the factors specified in Table H, and based on final average compensation at late retirement date.

Deferred (Vested) Retirement

Eligibility - 10 or more years of service. Benefit commences at age 55.

Annual Amount - Computed as a normal retirement benefit but based on service and final average compensation at time of termination of employment.

Brief Summary of Benefit Provisions Applicable to Local 1917 (for Members Hired On or After 8/4/88) (Concluded)

Death Before Retirement Benefits

Eligibility - Death while actively employed after 10 or more years of service. Payable to the employee's spouse for life.

Annual Amount - Equal to 50% of the retirement benefit the employee could have received if eligible for retirement at date of death. If the employee is not eligible to retire at date of death, the benefit begins at earliest date the employee could have retired had the employee survived. If the employee is not married at date of death, or has less than the required years of service, the employee's named beneficiary will receive a refund of employee's contributions.

Death After Retirement - In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - 10 years of service credited in System, and must be eligible to receive Social Security disability benefits.

Annual Amount – 2.2% of final average compensation per year of service. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation, excluding cash payouts for vacation banks, sick leave banks and all other banks.

Brief Summary of Benefit Provisions Applicable to Taylor Governmental Management and Administrative Employees Association (for Members Hired On or After 5/18/88)

Normal Retirement

Eligibility - Age 55 with 5 or more years of service. Employees hired after 3/6/2001 are not eligible to participate. Employees transferred from another bargaining unit on or after November 1, 2008 are not eligible to participate.

Annual Amount - The percentage of Final Average Earnings (FAE) as described below for service that was accrued before 1/1/2011, plus 2.25% of the FAE for each year accrued after 1/1/2011, not to exceed 65%.

For service accrued before 1/1/2011:

<u>Years of Service</u>	<u>Annual Benefit as a % of Final Average Earnings</u>
5	30.00%
6	32.50
7	35.00
8	37.50
9	40.00
10	42.50
11	45.00
12	47.50
13	52.50
14	60.00
15 or more	65.00

Type of Final Average Compensation - Average of best 5 years prior to retirement date.

Early Retirement

Eligibility - Any age with 5 or more years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Anytime following eligibility for normal retirement and having attained 15 years of service.

Annual Amount - Computed as a normal retirement benefit but actuarially increased to reflect late retirement on the basis of the factors specified in Table H, and based on final average compensation at late retirement date.

Brief Summary of Benefit Provisions Applicable to Taylor Governmental Management and Administrative Employees Association (for Members Hired On or After 5/18/88) (Concluded)

Deferred (Vested) Retirement

Eligibility - 5 or more years of service. Benefit commences at age 55.

Annual Amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Death Before Retirement Benefits

Eligibility - Death while actively employed after 5 or more years of service. Payable to the employee's spouse for life.

Annual Amount - If an employee who is vested in the pension plan dies prior to retirement, his/her beneficiary will receive the employee's accrued pension benefit for life actuarially adjusted based on the age of the beneficiary at the time the benefit is paid. Beneficiary shall be defined as: spouse or (in the absence of a spouse) minor children until the age of 21.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - No age or service requirement, but must be eligible to receive Social Security disability benefits.

Annual Amount - 66 2/3% of earnings with a maximum benefit of \$2,000/month. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation.

Interest on Member Contributions - 2% Annually.

**Brief Summary of Benefit Provisions Applicable to
Elected Officials
(for Members Elected On or After 11/27/89
Excludes City Council Elected On or After 11/25/97
Excludes Judges On or After 10/01/08
Excludes Mayor, Clerk, Treasurer On or After 11/08/05)**

Normal Retirement

Eligibility - Age 55 with 5 or more years of service.

Annual Amount - In accordance with the following table:

<u>Years of Service</u>	<u>Annual Benefit as a % of Final Average Earnings</u>
5	30.00%
6	32.50
7	35.00
8	37.50
9	40.00
10	42.50
11	45.00
12	47.50
13	50.00
14	52.50
15 or more	55.00

Type of Final Average Compensation - Average of best 5 years prior to retirement date.

Early Retirement

Eligibility - Any age with 5 or more years of service.

Annual Amount - Computed as a normal retirement benefit based on final average compensation at early retirement date and multiplied by the Table A actuarial reduction factor to reflect retirement prior to normal retirement date.

Late Retirement

Eligibility - Anytime following eligibility for normal retirement and having attained 15 years of service.

Annual Amount - Computed as a normal retirement benefit but actuarially increased to reflect late retirement on the basis of the factors specified in Table H and based on final average compensation at late retirement date.

**Brief Summary of Benefit Provisions Applicable to
Elected Officials
(for Members Elected On or After 11/27/89
Excludes City Council Elected On or After 11/25/97
Excludes Judges On or after 10/01/08
Excludes Mayor, Clerk, Treasurer On or After 11/08/05)
(Concluded)**

Deferred (Vested) Retirement

Eligibility - 5 or more years of service. Benefit commences at age 55.

Annual Amount - Computed as a normal retirement benefit based on service and final average compensation at time of termination of employment.

Death Before Retirement Benefits

Eligibility - Death while actively employed after 5 or more years of service. Payable to the employee's spouse for life.

Annual Amount - Equal to 50% of the retirement benefit the employee could have received if eligible for retirement at date of death. If the employee is not eligible to retire at date of death, the benefit begins at earliest date the employee could have retired if he had survived. If the employee is not married at date of death, or has less than 5 years of service, the employee's named beneficiary will receive a refund of employee's contributions with interest.

Death After Retirement

In accordance with optional form of benefit elected by employee, if any.

Disability Retirement

Eligibility - No age or service requirement, but must be eligible to receive Social Security disability benefits.

Annual Amount - 66 2/3% of earnings with a maximum benefit of \$2,000/month. The benefit is re-calculated at normal retirement based on normal retirement benefit formula.

Member Contributions - 5% of compensation.

Interest on Member Contributions - 5% Annually.

July 20, 2018

Ms. Sheila Gorski-Schulte
Director of Human Resources
City of Taylor General Employees Retirement System
23555 Goddard Road
Taylor, Michigan 48180

Re: December 31, 2016 Actuarial Report

Dear Sheila:

Enclosed are 25 copies of the annual actuarial report for the City of Taylor General Employees Retirement System.

Sincerely,



Brad Lee Armstrong, ASA, EA, FCA, MAAA

BLA:sc
Enclosures

cc: Mr. Edward Bourassa, Treasurer (2 report copies)
Ms. Kari Shea, Plante & Moran

