Milliman

15800 Bluemound Road
Suite 100
Brookfield, WI 53005-6043
USA

Tel +1 262 784 2250
Fax +1 262 923 3687

milliman.com

April 4, 2016

Ms. Michele Gadd
Saginaw Charter Township
4980 Shattuck Road
PO Box 6400
Saginaw, Michigan 48608-6400

Re: Retiree Medical Expense and Liability Calculations under GASB Statement 45

Dear Michele:

Enclosed is our report which presents the results of our calculations under Statement No. 45 of the Governmental Accounting Standards Board, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions," for the fiscal year ending March 31, 2016, March 31, 2017, and March 31, 2018 for Saginaw Charter Township Retiree Medical Benefit Program.

The GASB 45 accounting standard does not require that these benefits be pre-funded. Consequently, the Annual Required Contribution shown in the enclosed report does not need to be paid. However, this cost and the cumulative deficiency (if the full cost is not paid) will be disclosed on the Township's financial statements.

Also note that GASB has adopted new accounting standards (GASB 75 will replace GASB 45) for fiscal years beginning after June 15, 2017. These new accounting standards will have a significant impact on the Balance Sheet Liability that is reported in the Financial Statements.

Sincerely,

Allan L. Bittner, FSA, EA, MAAA
Principal and Consulting Actuary

ALB/cl

Enclosure

SAGINAW CHARTER TOWNSHIP

Actuarial Valuation of Retiree Medical Benefits
as of April 1, 2015

Prepared by:

Milliman, Inc.

Allan L. Bittner, FSA, EA, MAAA
Principal and Consulting Actuary

Gerald R. Bernstein, FSA, MAAA
Principal and Consulting Actuary

April 4, 2016

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April 4, 2016

Saginaw Charter Township
4980 Shattuck Road
PO Box 6400
Saginaw, Michigan 48608-6400

Attention: Ms. Michele Gadd

Re: Actuarial Valuation of Retiree Medical Benefits for Saginaw Charter Township

Ladies and Gentlemen:

Pursuant to your request, we have completed an actuarial determination of the benefit cost and funded status relating to the future retiree medical benefits of Saginaw Charter Township as of April 1, 2015. The results of our calculations are set forth in the following report, as are the actuarial assumptions and methods on which our calculations have been made. Our determinations reflect the procedures and methods as prescribed in Statement No. 45 of the Governmental Accounting Standards Board, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions."

Actuarial computations under Statement No. 45 are for purposes of fulfilling certain employer accounting requirements. The calculations reported herein have been made on a basis consistent with our understanding of the Statements. Determinations for purposes other than meeting the plan or employer financial accounting requirements of the Statements may differ significantly from the results reported herein.

In preparing this report, we have relied without audit on the employee data, plan provisions, and the value of the plan assets and other plan financial information as provided by your office. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The estimated impact of the Patient Protection and Affordable Care Act (ACA) regarding the excise tax on high cost health plans has been reflected in the projections, including recent changes passed into law on December 18, 2015. Future potential changes under the ACA have not been reflected in this analysis as the specific impact cannot be determined at this time.

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

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

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

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

It is our understanding that the Township has established an advance funding program with regard to these benefits. The discount rate used in our calculations reflects this understanding.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice.

This report and its use are subject to the terms of our Consulting Services Agreement with Saginaw Charter Township dated August 20, 2007.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. Nevertheless, the emerging liabilities and costs of the plan will vary from those presented in this report to the extent that actual experience differs from that projected by the actuarial assumptions.

We, Allan L. Bittner and Gerald R. Bernstein, are actuaries for Milliman, Inc. We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. This report uses the expertise of Milliman healthcare and retirement actuaries. Gerald R. Bernstein is responsible for the work related to the current expected healthcare benefit costs and trend rates. Allan L. Bittner is responsible for projecting the current costs into future years using the valuation assumptions and methodology and then calculating the accounting costs and liabilities reported herein.

Respectfully submitted,

Milliman, Inc.

Allan L Bittner

Allan L. Bittner, FSA, EA, MAAA
Principal and Consulting Actuary

Gerald R Bernstein

Gerald R. Bernstein, FSA, MAAA
Principal and Consulting Actuary

ALB/GRB/cl

I. INTRODUCTION AND PURPOSE

Milliman, Inc. prepared this report at the request of Saginaw Charter Township's management to estimate the cost of Saginaw Charter Township's current retiree health benefit program. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. The report should only be used in its entirety to assure complete understanding of the estimates and the methodology and assumptions underlying the estimates.

In preparing this report, we relied on the overall employee census and benefit information provided by Saginaw Charter Township. We checked the information for reasonableness, but we did not audit the information. To the extent that any of this data or information is incorrect, the results of this report may need to be revised.

A number of assumptions have been made in projecting retiree health costs that should be reviewed prior to interpreting the results shown in this report. These assumptions and methodology are described in this report. The projections in this report are estimates and, as such, Saginaw Charter Township's actual liability will vary from these estimates. The actual liability will not be known until such time that all eligibility is exhausted and all benefits are paid. The projections and assumptions should be updated as actual costs under this program develop.

II. COST PROJECTION RESULTS

The actuarial balance sheet is a demonstration of the basic actuarial equation that the actuarial present value of total projected benefits to be paid to the active, retired, and vested terminated participants must equal the assets on hand plus the actuarial present value of future contributions to be received. Accordingly, the status of the plan in balance sheet form as of April 1, 2015, April 1, 2016, and April 1, 2017 is shown below:

TABLE 1

	April 1, 2015	April 1, 2016	April 1, 2017
I. Actuarial Present Value of Total Projected Benefits			
115[(1)] Active Participants	$9,686,823	$10,018,992	$10,261,239
27[(1)] Retired Participants	3,047,369	2,886,342	2,705,386
Grand Total Actuarial Present Value of Total Projected Benefits	$12,734,192	$12,905,334	$12,966,625
II. Assets and Future Employer Contributions			
Assets[(2)]	$2,566,542	$3,049,204	$3,531,172
Unfunded Actuarial Accrued Liability	7,542,820	7,428,764	7,225,548
Present Value of Future Normal Costs (including the current year)	2,624,830	2,427,366	2,209,905
Total Assets and Future Employer Contributions	$12,734,192	$12,905,334	$12,966,625

(1) Participant data as of September 30, 2015 is summarized in Section VI.2 of this report.
(2) Projected assets assume $380,000 employer contribution for fiscal year ending March 31, 2016 and $360,000 employer contribution for fiscal year ending March 31, 2017.

Liabilities and contributions shown in this report are computed using the Unit Credit Method of funding. The objective under this method is to expense each participant's benefit under the plan as they accrue. At the time the Funding Method is introduced, there will be a liability which represents the contributions which would have been accumulated if this method of funding had always been used. The difference between this liability and the assets (if any) is the unfunded liability, which is typically funded over a chosen period in accordance with an amortization schedule. The calculations for 2015-2016, 2016-2017, and 2017-2018 are shown below:

TABLE 2

		2015-2016	2016-2017	2017-2018
A.	**Employer Normal Costs** (Unit Credit Actuarial Cost Method)			
(1)	Current Year Normal Cost – April 1	$290,824	$302,457	$314,555
(2)	Assumed Interest to the End of the Year	11,633	12,098	12,582
(3)	Current Year Normal Cost – March 31: [(1) + (2)]	$302,457	$314,555	$327,137
B.	**Determination of Current Year Amortization Payment**			
(1)	Unfunded Actuarial Liability (see Table 1)	$7,542,820	$7,428,764	$7,225,548
(2)	Amortization Period	30 years	30 years	30 years
(3)	Level Dollar Amortization Factor	17.9837	17.9837	17.9837
(4)	Amortization Amount – April 1: [(1) / (3)]	419,425	413,083	401,783
(5)	Assumed Interest to the End of the Year	16,777	16,523	16,071
(6)	Amortization Amount – March 31: [(4) + (5)]	$436,202	$429,606	$417,854

II. COST PROJECTION RESULTS *(continued)*

DISCLOSURES

TABLE 3

		Fiscal Year-End	03/31/2016	03/31/2017	03/31/2018[3]
I.		Determination of Annual Required Contribution			
	(1)	Discount Rate at Beginning of Fiscal Year	4.00%	4.00%	4.00%
	(2)	Normal Cost for Benefits Attributable to Service in the Year	$302,457	$314,555	$327,137
	(3)	Amortization of Unfunded Actuarial Accrued Liability	436,202	429,606	417,854
	(4)	Annual Required Contribution (ARC): (2) + (3)	738,659	744,161	744,991
II.		Net OPEB Obligation			
	(1)	Annual Required Contribution	738,659	744,161	744,991
	(2)	Interest on Net OPEB Obligation	106,494	105,898[2]	101,772[2]
	(3)	Adjustment to Annual Required Contribution[1]	(148,042)	(147,214)[2]	(141,478)[2]
	(4)	Annual OPEB Cost (Expense)	697,111	702,845[2]	705,285[2]
	(5)	Contributions Made	(712,000)[2]	(806,000)[2]	(528,000)[2]
	(6)	Increase in Net OPEB Obligation	(14,889)[2]	(103,155)[2]	177,285[2]
	(7)	Net OPEB Obligation – Beginning of Year	2,662,350	2,647,461[2]	2,544,306[2]
	(8)	Net OPEB Obligation – End of Year	$2,647,461[2]	$2,544,306[2]	$2,721,591[2]

III. OPEB History

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
03/31/15	$1,037,483	57.20%	$2,662,350
03/31/16	697,111	102.14%[2]	2,647,461[2]
03/31/17	702,845[2]	114.68%[2]	2,544,306[2]
03/31/18	705,285[2]	74.86%[2]	2,721,591[2]

(1) To offset, approximately, the amortization of the net experience losses (or gains) from past contribution deficiencies (or excess contributions) in relation to the ARC.

(2) We have assumed that the employer will contribute roughly the "pay-as-you-go" costs for the current year in this illustration. "Pay-as-you-go" costs should be total claim payments paid by the employer on behalf of retirees net of payments received from retirees. Also includes contributions of $380,000 for the fiscal year ending 3/31/2016 and $360,000 for the fiscal year ending 3/31/2017.

(3) If a significant plan change or a significant change in the covered population occurs, these numbers will need to be revised.

Funded Status and Funding Progress. As of April 1, 2015, the most recent actuarial valuation date, the plan was 25.39% funded. The actuarial accrued liability for benefits was $10,109,362, and the actuarial value of assets was $2,566,542, resulting in an unfunded actuarial accrued liability (UAAL) of $7,542,820.

II. COST PROJECTION RESULTS *(continued)*

REQUIRED SUPPLEMENTARY INFORMATION

TABLE 4

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) – Unit Credit (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b-a)/c
04/01/09	$ 383,275	$ 6,713,046	$ 6,329,771	5.70%	N/A	N/A
04/01/11	872,338	7,691,250	6,818,912	11.30%	N/A	N/A
04/01/12	1,120,014	11,400,758	10,280,744	9.80%	N/A	N/A
04/01/15	2,566,542	10,109,362	7,542,820	25.39%	N/A	N/A

TABLE 5

Cash Flow Projections, the Annual Undiscounted Cost of Retiree Medical Benefits Current Retiree Plus Current Active Employees

Fiscal Year Ending	DPS	Non-Union	Police	Total
2016	$26,000	$42,000	$264,000	$332,000
2017	56,000	97,000	293,000	446,000
2018	74,000	147,000	307,000	528,000
2019	84,000	202,000	320,000	606,000
2020	91,000	221,000	349,000	661,000
2021	110,000	260,000	301,000	671,000
2022	133,000	288,000	315,000	736,000
2023	142,000	287,000	272,000	701,000
2024	125,000	260,000	257,000	642,000
2025	112,000	229,000	276,000	617,000
2026	114,000	198,000	287,000	599,000
2027	116,000	204,000	320,000	640,000
2028	138,000	209,000	322,000	669,000
2029	163,000	201,000	353,000	717,000
2030	191,000	164,000	411,000	766,000
2031	222,000	143,000	442,000	807,000
2032	232,000	137,000	434,000	803,000
2033	266,000	144,000	451,000	861,000
2034	269,000	142,000	438,000	849,000
2035	246,000	148,000	434,000	828,000
2036	178,000	154,000	350,000	682,000

III. METHODOLOGY

Our general methodology to calculate the net present value consisted of the following steps:

1. Estimate the number of current active employees that will be employed at Saginaw Charter Township each year after April 1, 2015 until all current employees are either retired or no longer employed by Saginaw Charter Township.

2. Project the number of retired participants that will be alive each year after April 1, 2015 until all participants are presumed to have exhausted their benefit eligibility.

3. Project the net retiree medical and dental claim costs (and net administrative expenses) per participant for each year and for each age category using the April 1, 2015 estimated medical and dental costs as a starting point and increasing the medical and dental costs each year by the assumed annual rates of medical and dental inflation.

4. Estimate the total net medical and dental costs for each year as follows: (2) x (3)

5. Determine the total present value of the net medical and dental costs by discounting (4) for each year back to April 1, 2015 at the assumed discount rate.

We calculated the liability estimates using actuarial assumptions summarized in Section V. We prepared assumptions as to claim costs, premium rates, annual trends in the utilization and cost of medical and dental care, eligibility for Medicare, participation rates, termination rates, retirement rates, disability rates, and mortality based on information provided by Saginaw Charter Township, and our judgment.

We based our calculations on the detailed census data provided. This data provided the age and gender for retirees and actives. For spouses of actives, we assumed the spouse age was the same as the participant age.

IV. ACTUARIAL COST METHOD

Unit Credit Actuarial Cost Method

The actuarial cost method determines, in a systematic way, the incidence of plan sponsor contributions required to provide plan benefits. It also determines how actuarial gains and losses are recognized in other postemployment benefit costs. These gains and losses result from the difference between the actual experience under the plan and the experience by the actuarial assumptions.

The cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

Actuarial liabilities and comparative costs shown in this Report were computed using the **Unit Credit Actuarial Cost Method**, which recognized the following cost components:

1. **The Normal Cost** is the Actuarial Present Value of benefits accruing during the valuation year. For purposes of this valuation, we have accrued costs through full eligibility for benefits provided.
2. **The Actuarial Accrued Liability** is the Actuarial Present Value of benefits accrued as of the valuation date.
3. **The Actuarial Value of Assets** is equal to the Market Value of Assets as of the valuation date.
4. **The Unfunded Actuarial Accrued Liability** is amortized over 30 years from the valuation date on an open basis in level dollar payments.

V. ACTUARIAL ASSUMPTIONS

The following actuarial assumptions were used in the development of Saginaw Charter Township's retiree health cost projections. Where consistent with the terms of the plan, actuarial assumptions have utilized the proposed assumptions for the Municipal Employees' Retirement System of Michigan (MERS) as provided in the December 31, 2014 Actuarial Valuation reports with adjustments to the retirement rate assumptions due to our lack of data regarding this group's pension benefits. The MERS assumptions are based in part on experience studies conducted for the periods 1999-2003 and 2004-2008 and are regularly updated as experience warrants. In our opinion, those assumptions are reasonable for the intended purpose of this report. Assumptions regarding to participant elections are based on recent experience and our expectations of future experience.

1. **Interest Discount Rate:** 4.00% compounded annually.

2. **Consumer Price Index:** 2.50% compounded annually.

3. **Mortality:** 50% male/50% female blend of the 1994 Group Annuity Mortality table. For disabled retirees, the table 50% male/50% female of the 1994 Group Annuity Mortality Table is used with a 10-year set forward in ages. We have not assumed future mortality improvements; recent MERS experience studies indicate that more deaths are occurring than would be expected based on the mortality assumption; consequently, the current assumption makes some allowance for future mortality improvement.

4. **Employee Turnover/Withdrawal:** MERS for all employees. Rates are shown in the table below:

Years of Service	Rate
0	20.00%
1	17.00
2	14.00
3	11.00
4	9.00
5	6.50
10	5.00
15	3.70
20	3.00
25	2.70
30	2.60
34 & Over	2.40

5. **Disablement:** MERS disability rates for all employees. Rates are shown in the table below:

Age	Percent Becoming Disabled Within One Year
20	0.02%
25	0.02
30	0.02
35	0.06
40	0.06
45	0.11
50	0.24
55	0.41
60	0.41
65	0.41

V. ACTUARIAL ASSUMPTIONS *(continued)*

6. **Retirement:** We developed our own retirement rates for all employees. We believe these retirement rates are reasonable for the current plan population. Rates are shown in the table below:

Years of Service	Rate
5-9	5%
10-14	15
15-19	20
20-24	20
25-29	20
30-34	30
35+	40

The retirement rate is 100% at age 75.

7. **Percentage of Retirees Participating In Retiree Medical Coverage:**
   - Future retirees: 100% of current employees are expected to participate in Saginaw Charter Township's retiree health insurance plan.
   - Current retirees: Actual retiree participation.

8. **Percentage of Retirees Electing Family Coverage:**
   - Future retirees: 75% of future retirees that take coverage are assumed to elect two-party coverage.
   - Current retirees: Actual family coverage election.

9. **Age Difference of Active Employees and Spouses:** Spouses are the same age as the employees.

10. **Annual Medical Trend Rate Assumptions:** Medical inflation was based on the "Getzen" model published by the Society of Actuaries for purposes of evaluating long term medical trend. Under the Patient Protection and Affordable Care Act of 2010, a federal excise tax will apply for high cost health plans beginning in 2020. A margin to reflect the impact of the excise tax in future years is reflected in the assumed trend. The following tables show the trend rates used in this valuation.

	Annual Trend Rate	
Year	Medical	Dental
2015	6.10%	5.00%
2016	5.60	5.00
2017	5.40	5.00
2018	5.00	5.00
2019	5.00	5.00
2020	5.00	5.00
2030	5.10	5.00
2040	5.70	5.00
2050	5.40	5.00
2060	5.30	5.00
2070	4.50	4.50
2080	4.50	4.50
Ultimate (2081)	4.40	4.40

V. ACTUARIAL ASSUMPTIONS *(continued)*

11. **Expected Monthly Medical Costs Per Retiree (2015-2016 fiscal year):** We developed estimates of monthly 2015-2016 medical costs per retiree by age based on the Township's current premiums, adjusted for demographic differences between retirees and all participants (actives and retirees combined).

Age	Single Male	Family Male	Single Female	Family Female
50	$ 474	$1,066	$ 592	$1,066
55	624	1,315	691	1,315
60	809	1,622	813	1,622
62	900	1,771	871	1,771
64	1,024	1,963	939	1,963

12. **Expected Monthly Dental Costs Per Retiree (2015-2016 fiscal year):** We developed estimates of monthly 2015-2016 dental costs per retiree by age based on the Township's current premiums, adjusted for demographic differences between retirees and all participants (actives and retirees combined).

Age	Single Male	Family Male	Single Female	Family Female
50	$35	$74	$39	$74
55	39	81	42	81
60	44	89	45	89
62	45	91	46	91
64	47	93	46	93

VI. DATA

1. **Monthly 2015 Retiree Premiums:** The Township's current combined medical and dental premium rates are shown in the following table.

Monthly 2015 Pre-Medicare Health Insurance Premiums

Plan	Medical		Dental	
	Subscriber	Family	Subscriber	Family
Community Blue PPO $15 OV, $10/20 Rx, $1,000 Dental	$533.59	$1,280.61	$35.22	$84.54
Community Blue PPO $20 OV, $5/25/50 Rx, $1,000 Dental, Vision	$507.14	$1,210.86	$35.22	$84.54
Community Blue PPO $20 OV, $5/25/50 Rx, $1,500 Dental, Vision	$507.14	$1,210.86	$39.49	$94.76

2. **Participant Data:** We relied on the following medical plan participant data as of September 30, 2015. We have assumed no significant changes in the participant data between April 1, 2015 and September 30, 2015.

	Participant Count	Average Age	Average Service
Active Employees	115	49.4	17.8
Retirees	27	63.2	

VII. PLAN PROVISIONS

Retiree Eligibility and Benefits:

DPS

Eligibility: Any retiree who has attained age 55 with 25 years of continuous service with the Township.

Benefits: The Township will reimburse 50% of the premium, not to exceed $5,500 for retiree and spousal coverage, or $2,750 for retiree coverage pre-65. For post-65, retirees get a per person premium reimbursement ($1,417 at January 1, 2015) increasing each year with the CPI. In the alternative, retirees shall have the option of receiving an annual cash payment of $1,000.00 until the retiree reaches age 65.

Non-Union

Eligibility: Any retiree who has attained age 55 with 20 years of service with the Township.

Benefits: The Township will reimburse 50% of the premium, not to exceed $5,000 for retiree and spousal coverage, or $2,500 for retiree coverage pre-65. For post-65, retirees get a per person premium reimbursement ($1,417 at January 1, 2015) increasing each year with the CPI. In the alternative, retirees shall have the option of receiving an annual cash payment of $1,000.00 until the retiree reaches age 65.

Police

Eligibility: Any retiree who has applied for a MERS annuity.

Benefits: The retiree has to pay 100% of the premium between the ages of 50 and 52. After age 52, the Township provides health insurance for single or double coverage at no cost to the retiree until age 65. Beginning April 1, 2014, employees retiring will begin paying a monthly copay of $25 for single and $40 for double coverage. For post-65, retirees get a per person premium reimbursement ($1,417 at January 1, 2015) increasing each year with the CPI. In the alternative, retirees shall have the option of receiving an annual cash payment of $1,000 for single and $2,000 for double until the retiree reaches age 65.

VIII. GLOSSARY

The following is an explanation of many of the terms referenced by the Statement of the Governmental Accounting Standards Board, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions".

1. **Actuarial Cost Method.** This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Actuarial Accrued Liability and the Normal Cost. The Statement assumes a closed group of employees and other participants unless otherwise stated; that is, no new entrants are assumed. Six methods are permitted – Unit Credit, Entry Age Normal, Attained Age, Aggregate, Frozen Entry Age, and Frozen Attained Age.

2. **Actuarial Accrued Liability.** This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).

3. **Actuarial Present Value of Benefits.** This is the value, as of the applicable date, of future payments for benefits and expenses under the Plan, where each payment is:

   (a) Multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and

   (b) Discounted at the assumed discount rate.

4. **Actuarial Value of Assets.** This is the value of cash, investments and other property belonging to the Plan, as used by the actuary for the purpose of an Actuarial Valuation.

5. **Amortization Payment.** This is the amount of the contribution required to pay interest on and to amortize over a given period the Unfunded Actuarial Accrued Liability or the Unfunded Frozen Actuarial Accrued Liability. A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each actuarial valuation date.

6. **Annual Required Contribution ("ARC").** This is the employer's periodic required contribution to a defined benefit OPEB plan, calculated in accordance with the set of requirements for calculating actuarially determined OPEB information included in financial reports.

7. **Attribution Period.** The period of an employee's service to which the expected postretirement benefit obligation for that employee is assigned. The beginning of the attribution period is the employee's date of hire. The end of the attribution period is the full retirement eligibility date. For disability retirement, the end of the attribution period is the date of disability.

8. **Benefit Payments.** The monetary or in-kind benefits or benefit coverage to which participants may be entitled under a post-employment benefit plan, including health care benefits and life insurance not provided through a pension plan.

9. **Funding Excess.** This is the excess of the Actuarial Value of Assets over the actuarial accrued liability.

VIII. GLOSSARY *(continued)*

10. **Normal Cost.** This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.

11. **Net OPEB obligation.** This is the cumulative difference since the effective date of this statement between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

12. **Other Postemployment Benefits ("OPEB").** This refers to postemployment benefits other than pension benefits, including healthcare benefits regardless of the type of plan that provides them, and all other postemployment benefits provided separately from a pension plan, excluding benefits defined as termination benefits or offers.

13. **Return on Plan Assets.** This is the actual investment return on plan assets during the fiscal year.

14. **Substantive Plan.** The terms of the postretirement benefit plan as understood by an employer that provides postretirement benefits and the employees who render services in exchange for those benefits. The substantive plan is the basis for the accounting for the plan.

15. **Unfunded Actuarial Accrued Liability.** This is the excess of the actuarial accrued liability over the Actuarial Value of Assets.

APPENDIX A: INDIVIDUAL GROUP EXHIBIT

	DPS	Non-Union	Police	Totals
Actuarial Present Value of Projected Benefits	$2,667,973	$3,393,240	$6,672,979	$12,734,192
April 1, 2015 Normal Cost	70,726	71,098	149,000	290,824
Interest on Normal Cost	2,829	2,844	5,960	11,633
March 31, 2016 Normal Cost	73,555	73,942	154,960	302,457
April 1, 2015 Amortization	87,529	123,299	208,597	419,425
Interest on Amortization	3,501	4,932	8,344	16,777
March 31, 2016 Amortization	91,030	128,231	216,941	436,202
Total ARC	164,585	202,173	371,901	738,659
April 1, 2015 Actuarial Accrued Liability (AAL)	2,109,708	2,971,852	5,027,802	10,109,362
April 1, 2015 Market Value of Assets*	535,608	754,487	1,276,447	2,566,542
April 1, 2015 Unfunded AAL	1,574,100	2,217,365	3,751,355	7,542,820

	DPS	Non-Union	Police	Totals
Actuarial Present Value of Projected Benefits	$2,748,002	$3,486,213	$6,671,119	$12,905,334
April 1, 2016 Normal Cost	73,555	73,942	154,960	302,457
Interest on Normal Cost	2,942	2,958	6,198	12,098
March 31, 2017 Normal Cost	76,497	76,900	161,158	314,555
April 1, 2016 Amortization	88,348	123,078	201,657	413,083
Interest on Amortization	3,534	4,923	8,066	16,523
March 31, 2017 Amortization	91,882	128,001	209,723	429,606
Total ARC	168,379	204,901	370,881	744,161
April 1, 2016 Actuarial Accrued Liability (AAL)	2,240,961	3,121,912	5,115,095	10,477,968
April 1, 2016 Market Value of Assets*	652,144	908,511	1,488,549	3,049,204
April 1, 2016 Unfunded AAL	1,588,817	2,213,401	3,626,546	7,428,764

SAGINAW CHARTER TOWNSHIP

Actuarial Valuation of Retiree Medical Benefits
as of April 1, 2015

	DPS	Non-Union	Police	Totals
Actuarial Present Value of Projected Benefits	$2,801,032	$3,526,554	$6,639,039	$12,966,625
April 1, 2017 Normal Cost	76,497	76,900	161,158	314,555
Interest on Normal Cost	3,060	3,076	6,446	12,582
March 31, 2018 Normal Cost	79,557	79,976	167,604	327,137
April 1, 2017 Amortization	87,785	120,444	193,554	401,783
Interest on Amortization	3,511	4,818	7,742	16,071
March 31, 2018 Amortization	91,296	125,262	201,296	417,854
Total ARC	170,853	205,238	368,900	744,991
April 1, 2017 Actuarial Accrued Liability (AAL)	2,350,207	3,224,581	5,181,932	10,756,720
April 1, 2017 Market Value of Assets*	771,516	1,058,552	1,701,104	3,531,172
April 1, 2017 Unfunded AAL	1,578,691	2,166,029	3,480,828	7,225,548

* Ratioed based on AAL