Gabriel Roeder Smith & Company
Consultants & Actuaries

CITY OF ROYAL OAK RETIREE HEALTH CARE PLAN

SUPPLEMENTAL ACTUARIAL VALUATION

AS OF NOVEMBER 30, 2015

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GRS

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March 16, 2016

Ms. Julie Rudd
Finance Director
City of Royal Oak
211 S. Williams Street
Royal Oak, Michigan 48067

Dear Ms. Rudd:

Submitted in this report are the results of an Actuarial Valuation of the assets and benefit values associated with the employer financed retiree health benefits provided by the City of Royal Oak. The date of the valuation was November 30, 2015, effective for the fiscal years beginning July 1, 2016 and July 1, 2016. This report was prepared at the request of the City of Royal Oak.

This report was requested by the City of Royal Oak and is intended for use by the City and those designated or approved by the City. This report may be provided to parties other than the City of Royal Oak only in its entirety and only with the permission of the City of Royal Oak.

The purpose of the valuation was to measure the liabilities of the Retiree Health Plan based on a proposed City funding policy that includes employer contributions to a qualified OPEB trust equal to 100% of the actuarially determined rate. This report should not be relied on for any other purpose. Determinations of the liability associated with plan benefits described in this report for purposes other than satisfying the stated objective may be significantly different than the values shown in 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.

The valuation was based upon information, furnished by the City, concerning retiree health benefits, individual members, and financial data. Data was checked for internal consistency, but was not otherwise audited.

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To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Plan 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. Please see the following page for additional disclosures required by the Actuarial Standards of Practice. Mark Buis and James D. Anderson are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Mark Buis, FSA, EA, MAAA   James D. Anderson, FSA, EA, MAAA

MB:sc

Additional Disclosures Required by Actuarial Standards of Practice

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 should not be relied on for any purpose other than the purpose described in the primary communication.

The signing actuaries are independent of the plan sponsor.

SECTION A

VALUATION RESULTS

BACKGROUND

The City provides retiree health benefits to eligible City retirees (and their eligible beneficiaries) for their lifetimes. The City began funding retiree health benefits approximately 20 years ago by making contributions in excess of current benefit payments to a retiree health care trust. In recent years, City contributions have been sufficient to pay only for the current year's benefit disbursements (a.k.a., pay-as-you-go funding). Based on this practice, recent valuations of the Retiree Health Care Plan have been based on a relatively low discount rate.

The City is currently exploring the idea of issuing obligation bonds in connection with the City's Retiree Health Care Plan liability. This report includes a valuation of Plan liabilities assuming a change in the City's funding policy. Namely, that the City will issue bonds and use the proceeds to make 100% of the actuarially determined Plan contributions. As a result, the discount rate used in this valuation of the Retiree Health Care Plan is 7.75% per year. A detailed description of the assumptions and methods used in this valuation of the Plan is included in Section D of this report.

Section A of this report contains key valuation results including City contributions for fiscal beginning December 1, 2015 based on the current asset valuation method (market value of assets). We understand that the retiree health plan will be closed to new City employees hired on or after January 1, 2016. New City employees will receive retiree health benefits from a defined contribution type retiree health plan. These prospective City employees will not become members of this plan. As a result of this change and consistent with current accounting standards, City contributions to this plan are expected to increase beginning in 2016 due to a change in amortization method (level dollar instead of level percent of pay). If the effective date of plan closure was January 1, 2014, the recommended fiscal year 2014 City contribution would be approximately $29 million instead of the amount shown on page A-2.

DETERMINATION OF THE UNFUNDED ACCRUED LIABILITY AS OF NOVEMBER 30, 2015

A. Accrued Liability	
1. For retirees and beneficiaries	$ 97,008,359
2. For vested terminated members	124,689
3. For present active members	25,510,620
4. Total	122,643,668
B. Actuarial Value of Assets	
1. Total	$ 14,672,324
C. Unfunded Accrued Liability (UAL): (A.4) – (B.1)	$ 107,971,344
D. Funded Percent: (B.1) / (A.4)	12.0%

The chart above shows the development of the Plan's unfunded actuarial accrued liabilities based on the market value of assets held in the Retiree Health Care Plan trust. As of November 30, 2015, the Plan's accrued liabilities exceed the market value of assets by $262.6 million.

DETERMINATION OF THE FUNDING VALUE OF RETIREE HEALTH CARE PLAN ASSETS

Year Ended November 30:	2015	2016	2017	2018
A. Funding Value Beginning of Year	$9,868,972			
B. Market Value End of Year	14,092,066			
C. Market Value Beginning of Year	9,868,972			
D. Non-Investment Net Cash Flow	4,074,057			
E. Investment Income				
E1. Market Total: B-C-D	149,037			
E2. Amount for Immediate Recognition: (7.75)%	922,715			
E3. Amount for Phased-In Recognition: E1-E2	(773,678)			
F. Phased-In Recognition of Investment Income				
F1. Current Year: 0.25 x E3	(193,420)			
F2. First Prior Year	0	$(193,420)		
F3. Second Prior Year	0	0	$(193,419)	
F4. Third Prior Year	0	0	0	$(193,419)
F5. Total Recognized Investment Gain (Loss)	(193,420)	(193,420)	(193,419)	(193,419)
G. Funding Value End of Year: A+D+E2+F5	14,672,324			
H. Difference Between Market & Funding Value	(580,258)	(386,838)	(193,419)	(0)
I. Recognized Rate of Return	**6.1 %**			
J. Market Value Rate of Return	1.3%			
K. Ratio of Funding Value to Market Value	104.1 %			

REPORTED FINANCIAL INFORMATION
YEAR ENDED NOVEMBER 30, 2015

	RETIREE HEALTH CARE TRUST ASSETS
Market Value on December 1, 2014	$ 9,868,972
Revenues:	
a. Employer Contributions	11,674,963
b. Investment Earnings	4,023
c. Investment Appreciation	144,954
d. Member Contributions	0
e. Other	60
f. Total	11,823,999
Disbursements:	
a. Health Care Premiums	7,554,476
b. Administrative Expenses	46,430
c. Total	7,600,906
Market Value on November 30, 2015	$ 14,092,066

SECTION B

RETIREE PREMIUM RATE DEVELOPMENT

RETIREE PREMIUM RATE DEVELOPMENT

The City offers benefits on a fully-insured basis and on a self-insured basis. The fully-insured and self-insured rates are developed separately and then blended together at the end to create a single set of rates for use in the valuation.

Initial self-inured premium rates were developed separately for each class (Medicare (post-65) and Non-Medicare (pre-65) retirees). The rates were calculated by using paid claims and exposure data incurred during the period of April 2011 to March 2014 and paid prior to November 2014 adjusted for catastrophic claims, plus the load for administration, network access fee, and stop loss premiums. The Medical data was analyzed for the pre-65 and post-65 participants separately since Medicare is available for the post-65 participants and has a significant impact on the claim experience. We estimated the split between Medicare and Non-Medicare claims since they were not provided separately. Furthermore, since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately as well.

Initial fully-insured premium rates were developed for the two classes of retirees (pre-65 and post-65). The fully-insured rates provided by the City were utilized to determine the appropriate premium rates. The pre-65 fully-insured premiums are blended rates based on the combined experience of active and pre-65 retired members; therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees since the average costs of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees. The true per capita cost for the pre-65 retirees is developed by adjusting the demographic differences between the active employees and retirees to reflect this implicit rate subsidy for the retirees. For the post-65 retirees, the fully-insured premium rate is used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group. All Medicare retirees in BCBS plans are enrolled in the Medicare Advantage for medical coverage. For their Rx coverage, they get the prescription drug benefit that corresponds to their BCBS suffix.

For the current active employees it was assumed they would retire into a Blue Cross/Blue Shield Plan. We have developed separate premium rates for future retirees in order to reflect the benefit differences.

Age graded and sex distinct premiums are utilized by this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

The combined monthly one-person medical and drug premiums at select ages are shown below.

For Those Not Eligible for Medicare (Pre-65)				
	Future Retirees		Current Retirees	
Age	Male	Female	Male	Female
40	$ 278.83	$ 436.85	$ 365.97	$ 573.38
50	512.53	580.73	672.72	762.23
60	841.55	808.91	1,104.56	1,061.73
64	979.52	907.92	1,285.66	1,191.68

For Those Eligible for Medicare (Post-65)				
	Future Retirees		Current Retirees	
Age	Male	Female	Male	Female
65	$ 416.51	$ 383.55	$ 604.21	$ 556.40
75	533.37	473.36	773.74	686.67
85	594.75	522.16	862.78	757.47

The dental and vision premiums were not "age graded" for this valuation since these claims do not vary significantly by age. The combined dental and vision rates for pre-65 participants used in this valuation are $31.75 for the first person and $33.08 for the second person; the combined rate was $31.14 per person for post-65 participants.

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.

James E. Pranschke

James E. Pranschke, FSA, MAAA

SECTION C

SUMMARY OF BENEFIT PROVISIONS

CITY OF ROYAL OAK RETIREE HEALTH CARE PLAN
SUMMARY OF BENEFITS AS OF NOVEMBER 30, 2015

Persons Covered

Health insurance coverage is provided by and paid for by the City for the following people:

- to retired members of the Retirement System if they meet the eligibility requirements for post-retirement medical benefits (see next page);
- to eligible spouses and/or dependents of eligible retirees during the retirees' lifetime;
- to eligible surviving spouses and/or dependents after the eligible retiree's death for members who retired after June 1, 1980. Spousal coverage does not continue for those who retired prior to June 1, 1980;
- to employees and eligible spouses and/or dependents who retire from a deferred status if they meet the minimum service requirements under their contract;
- eligible employees may elect to receive health insurance through their spouse's health care plan. The City will pay the employee 30% of the schedule applicable premium annually, up to a maximum of $2,400.

Note: Eligible = covered spouse and/or dependents at time of retirement or termination if deferred

Groups Covered

Group	Date of Closure to New Hires
SEIU AFL-CIO Local 517M	7/1/2006
Department Heads and Deputies	7/1/2008
Executive Department Heads	7/1/2007
Professional & Technical	7/1/2007
44th District Court	7/1/2007
AFSCME	7/1/2006
Foremen and Supervisors	7/1/2006
Judges	5/1/2008
Police Service Aides	3/1/2009
Police	3/1/2009
Fire	3/1/2009
Police Command	3/1/2009
Police Detectives	3/1/2009
Police/Fire Department Heads	3/1/2009

Eligibility Requirements

Current active members are eligible to receive City paid health insurance upon retirement if they meet the following requirements:

Employee Group	Eligibility Requirements
Department Heads, Deputy Dept. Heads & Executive Dept. Heads	10 years of service
SEIU AFL-CIO Local 517M & Supervisors	15 years of seniority if hired on or before 8/1/94, 20 years of service otherwise
Professional & Technical	*If hired before 6/11/83:* Age 70 with 5 years of service; Age 65 with 10 years of service; Age 60 with 15 years of service. *If hired on or after 6/11/83:* 20 years of service
AFSCME	*If hired before 6/11/83:* Age 70 with 5 years of service; Age 65 with 10 years of service; Age 60 with 15 years of service. *If hired on or after 6/11/83:* 15 years of service
All others	20 years of service

Benefits Provided

Retirees and their spouses are provided medical, prescription drug, dental, and vision coverage as well as reimbursed their Medicare Part B premiums. Benefits are provided as outlined in the labor contract/agreement under which the employee retired. (Some older contracts do not provide prescription drug, dental, and/or vision coverage.)

SECTION D

SUMMARY OF PARTICIPANT DATA

TOTAL ACTIVE MEMBERS AS OF NOVEMBER 30, 2015
BY AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date							Totals
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 Plus**	**No.**
20-24								
25-29								
30-34		2	3					5
35-39		4	15	2				21
40-44		2	6	14	2			24
45-49			12	16	19	1		48
50-54			7	13	15	4	2	41
55-59			5	11	7	10		33
60-64			5	6	1	1	1	14
65 & Over			1				1	2
Totals		**8**	**54**	**62**	**44**	**16**	**4**	**188**

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

Age:	49.0	years
Service:	18.0	years
Annual Pay:	$66,140	

GENERAL ACTIVE MEMBERS AS OF NOVEMBER 30, 2015
BY AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date							Totals
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 Plus**	**No.**
20-24								
25-29								
30-34			1					1
35-39		2	5	1				8
40-44		1	2	3	2			8
45-49			7	9	4			20
50-54			5	9	7	3	2	26
55-59			5	11	4	8		28
60-64			5	6			1	12
65 & Over			1				1	2
Totals		**3**	**31**	**39**	**17**	**11**	**4**	**105**

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

Age:	51.7	years
Service:	18.3	years
Annual Pay:	$57,054	

POLICE AND FIRE ACTIVE MEMBERS AS OF NOVEMBER 30, 2015
BY AGE AND YEARS OF SERVICE

	Years of Service to Valuation Date							Totals
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.
20-24								
25-29								
30-34		2	2					4
35-39		2	10	1				13
40-44		1	4	11				16
45-49			5	7	15	1		28
50-54			2	4	8	1		15
55-59					3	2		5
60-64					1	1		2
65 & Over								
Totals		**5**	**23**	**23**	**27**	**5**		**83**

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

Age:	45.6	years
Service:	17.6	years
Annual Pay:	$77,634	

TOTAL RETIRED AND DEFERRED MEMBERS AS OF NOVEMBER 30, 2015 BY AGE

Age	Retired Members	
	General	Police/Fire
Under 55	7	40
55-59	12	26
60-64	35	19
65 & Over	161	132
Totals	**215**	**217**

The number counts above only include those retirees who have elected to receive retiree health care coverage through the City of Royal Oak retiree health care plan.

Age	Deferred Members	
	General	Police/Fire
Under 55	1	0
55-59	0	0
60-64	0	0
65 & Over	0	0
Totals	**1**	**0**

The number counts above only include those deferred vested who are eligible to receive retiree health care coverage through the City of Royal Oak retiree health care plan, as indicated by the City.

SECTION E

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

ACTUARIAL METHODS AND ASSUMPTIONS
USED FOR THE VALUATION

Actuarial Cost Method. Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

(i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;

(ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Actuarial Value of System Assets. A 4-year smoothed market value of assets was used in conjunction with this valuation.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

The rate of investment return was 7.75% a year, compounded annually net after investment and administrative expenses.

The assumed real return is the rate of return in excess of price inflation. Considering other assumptions used in the valuation, the 7.75% nominal rate translates to a net real return of 4.75% a year.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which future contributions will be based.

	% Increase in Salary at Sample Ages				
Sample	Merit and Seniority		Base	Increase Next Year	
Ages	General	Police/Fire	(Economic)	General	Police/Fire
20	2.9%	2.3%	3.0%	5.9%	5.3%
25	2.3%	2.3%	3.0%	5.3%	5.3%
30	2.0%	2.3%	3.0%	5.0%	5.3%
35	1.8%	1.6%	3.0%	4.8%	4.6%
40	1.6%	0.6%	3.0%	4.6%	3.6%
45	1.3%	0.2%	3.0%	4.3%	3.2%
50	0.9%	0.1%	3.0%	3.9%	3.1%
55	0.5%	0.0%	3.0%	3.5%	3.0%
60	0.1%	0.0%	3.0%	3.1%	3.0%
65	0.0%	0.0%	3.0%	3.0%	3.0%
Ref	417	418	0.03		

The number of active members is assumed to decrease in the future.

The mortality table used was the RP-2000 Mortality Table, projected 20 years (multiplied by 110%). This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. Rates for disabled members were set forward 10 years.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
45	0.128%	0.090%	36.73	38.58
50	0.164%	0.131%	31.97	33.76
55	0.272%	0.255%	27.27	29.03
60	0.538%	0.503%	22.72	24.49
65	1.057%	0.966%	18.47	20.24
70	1.805%	1.666%	14.58	16.34
75	3.139%	2.633%	11.01	12.82
80	5.791%	4.385%	7.93	9.66
Ref	#454x1.1sb0yrs	#455x1.1sb0yrs		

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Retirement Age	Percent of Eligible Active Members Retiring Within the Next Year		
	General	Police Service Aides	Fire Hired After 10/1/09
50	20%		40%
51	15%		40%
52	15%		40%
53	15%		25%
54	15%		25%
55	15%	20%	25%
56	15%	15%	25%
57	15%	15%	25%
58	15%	15%	25%
59	15%	15%	25%
60	15%	15%	25%
61	15%	15%	25%
62	35%	15%	25%
63	20%	15%	25%
64	20%	15%	25%
65	55%	15%	100%
66	45%	15%	
67	45%	35%	
68	45%	20%	
69	45%	20%	
70	100%	100%	
Ref	2321	2322	2323

Retirement Service	Percent of Eligible Active Members Retiring Police Officers, Detectives, Command & Fire Hired Before 10/1/09
25	40%
26	40%
27	40%
28	25%
29	25%
30	25%
31	25%
32	25%
33	25%
34	25%
35	25%
36	25%
37	25%
38	25%
39	25%
40	100%
Ref	2323

Rates of disability among active members.

Sample	Percent Becoming Disabled Within Next Year			
	General		Police/Fire	
Ages	Males	Females	Males	Females
20	0.04%	0.02%	0.08%	0.08%
25	0.05%	0.03%	0.11%	0.11%
30	0.05%	0.04%	0.19%	0.19%
35	0.07%	0.07%	0.23%	0.23%
40	0.11%	0.10%	0.53%	0.53%
45	0.16%	0.14%	0.60%	0.60%
50	0.26%	0.23%	0.71%	0.71%
55	0.46%	0.38%	0.83%	0.83%
Ref	#33x0.5	#34x0.5	#45x0.75	#45x0.75

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

		Percent of Active Members Separating Within Next Year			
Sample	Service	General		Police/Fire	
Ages	Index	Males	Females	Males	Females
ALL	1	12.00%	12.00%	10.00%	10.00%
	2	9.00%	9.00%	7.00%	7.00%
	3	7.00%	7.00%	5.00%	5.00%
	4	5.00%	5.00%	4.00%	4.00%
	5	4.50%	4.50%	3.50%	3.50%
20	6 & Over	4.50%	4.50%	3.00%	3.00%
25		4.50%	4.50%	3.00%	3.00%
30		4.00%	4.00%	2.50%	2.50%
35		3.50%	3.50%	1.50%	1.50%
40		2.50%	2.50%	1.00%	1.00%
45		2.00%	2.00%	0.75%	0.75%
50		1.50%	1.50%	0.50%	0.50%
55		1.00%	1.00%	0.25%	0.25%
Ref		29 #1300x1	29 #1300x1	30 #1301x1	30 #1301x1

Health cost increases – See table below.

Year Beginning December 1,*	Medical & Drug	Dental & Vision	Medicare Part B
2016	9.00%	3.00%	16.11% ^
2017	8.25	3.00	5.00
2018	7.50	3.00	5.00
2019	6.75	3.00	5.00
2020	6.00	3.00	5.00
2021	5.25	3.00	5.00
2022	4.50	3.00	4.50
2023	4.00	3.00	4.00
2024	3.50	3.00	3.50
2025 & Later	3.00	3.00	3.00

** Except for Medicare Part B Reimbursement which increases on January 1 each year.*
^ Medicare Part B rates are set to increase from $104.90 per month in 2015 to $121.80 per month in 2016, an increase of 16.11%.

Decrement Operation	Disability and mortality decrements do not operate during the first 5 years of service. Disability also does not operate during retirement eligibility.
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.
Incidence of Contributions	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Marriage Assumption	90% of males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Pay Increase Timing	Beginning of year.
Medicare Coverage	Assumed to be available for all covered employees on attainment of age 65.
Election Percentage	It was assumed that 90% of eligible future retirees would choose to receive retiree health care benefits through the City. Of those assumed to elect coverage, 80% of males and 80% of females in the General groups were assumed to elect two-person coverage and 90% of males and 90% of females in the Police/Fire groups were assumed to elect two person coverage, if eligible. For those that elect two-person coverage, it was assumed that coverage would continue to the spouse upon death of the retiree, if eligible.

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of 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 plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual Required Contribution (ARC). The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

Governmental Accounting Standards Board (GASB). GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Implicit Rate Subsidy. It is common practice for employers to allow retirees to continue in the employer's group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.

Medical Trend Rate (Health Care Inflation). The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Employee Benefits (OPEB). OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other health care benefits.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

Valuation Assets. The value of current plan assets recognized for valuation purposes.

March 16, 2016

Ms. Julie Rudd
Finance Director
City of Royal Oak
211 S. Williams Street
Royal Oak, Michigan 48067

Dear Ms. Rudd:

Re: Retiree Health Care Plan

Dear Ms. Rudd:

Enclosed are 17 copies of our report of the supplemental actuarial valuation of the City of Royal Oak Retiree Health Care Plan.

Respectfully submitted,

Mark Buis

Mark Buis

MB:sc
Enclosures