CITY OF ROYAL OAK RETIREE HEALTH CARE PLAN

THE REPORT OF THE ACTUARIAL VALUATION AS OF JUNE 30, 2006

Gabriel Roeder Smith & Company

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May 4, 2007

Mr. Don Johnson
Finance Director
City of Royal Oak
City Hall
211 S. Williams Street
Royal Oak, Michigan 48335

Dear Mr. Johnson:

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 June 30, 2006, effective for the fiscal year July 1, 2007 thru June 30, 2008. This report was prepared at the request of the City of Royal Oak.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements No. 43 and No. 45 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the City's financial reporting requirements may produce significantly different results. 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 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.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods.

One or more of the undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,

Mark Buis

Louise Gates

Hu Zhi

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MB:lr

EXECUTIVE SUMMARY

Annual Required Contribution

This report presents the annual expense required to be recognized by the plan sponsor for purposes of complying with the accounting requirements of Governmental Accounting Standards Board Statement No. 45. Based on the information provided by the employer, implementation of GASB Statement No. 45 will begin with the fiscal year beginning July 1, 2007.

The Annual Required Contribution (ARC) for the fiscal year beginning July 1, 2007 is $8,174,905. In the first year GASB Statement No. 45 is adopted, the annual OPEB cost required to be disclosed on the employer's financial statements is equal to the ARC. Actual premiums paid on behalf of retirees may be treated as employer contributions in relation to the ARC and act to reduce the Net OPEB Obligation (NOO).

For additional details please see Section B of the report.

Additional OPEB Reporting Requirements

In addition to the annual OPEB cost described above, employers will have to disclose a Net OPEB Obligation (or asset). The Net OPEB Obligation is the cumulative difference between annual OPEB costs and annual employer contributions in relation to the ARC, accumulated from the implementation of Statement No. 45. The Net OPEB Obligation is zero as of the beginning of the fiscal year that Statement No. 45 is implemented, unless the employer chooses to recognize a beginning balance.

The requirements for determining the employer's contributions in relation to the ARC are described in paragraph 13 g. of Statement No. 45. Additional information required to be disclosed in the employer's financial statements is detailed in paragraphs 24 through 27 of Statement No. 45.

See Section F of this report for additional accounting information.

Liabilities and Assets

The present value of all benefits expected to be paid to current plan members as of June 30, 2006 is $127,587,642. The actuarial accrued liability, which is the portion of the $127,587,642 attributable to service accrued by plan members as of June 30, 2006, is $110,410,635. As of June 30, 2006, there is $0 in valuation assets available to offset the liabilities of the plan.

The funded status of the plan, which is the ratio of plan assets to actuarial accrued liability, as of June 30, 2006 is 0.0%.

SECTION A
OVERVIEW

GASB Background

The purpose of this valuation is to provide information on the cost associated with providing postemployment benefits other than pensions, or OPEB, to current and former employees. OPEB benefits are most often associated with postemployment health care, but cover almost any benefit not provided through a pension plan, including life insurance, dental and vision benefits. It is important to note that OPEB benefits, by definition, do not include benefits *currently* being provided to active employees – however, this report includes the liabilities for benefits expected to be paid to current active employees when they terminate employment at a future date.

The rising cost of health care has been a cause of concern to both individuals and employers who sponsor healthcare plans. The accounting community became concerned that many sponsors of public plans were accounting for the cost of their OPEB plans solely on the basis of benefits paid and that this method did not accurately reflect the ultimate cost of benefits promised to current and former employees. In 1988 the Governmental Accounting Standards Board (GASB) began working on a project to develop comprehensive standards for financial reporting of OPEB plans.

The GASB determined that an OPEB plan was similar to a pension plan in that benefits are earned during an active employee's working lifetime but paid out at a future date. In the GASB's view, accounting for OPEB should follow the same basic principle as accounting for public plan pension costs: These benefits are compensation for employees' services and should be accounted for during the period of time that services are performed.

GASB BACKGROUND (CONCLUDED)

The GASB worked on comprehensive standards for OPEB accounting for more than a decade, culminating with the release of GASB Statements No. 43 and No. 45 in the Spring of 2004. GASB Statement No. 43 covers the accounting rules for OPEB *plans* while GASB Statement No. 45 describes the rules for *employers* sponsoring OPEB plans. The effective dates of the Statements are based on the implementation of GASB Statement No. 34, based on the sponsor's annual revenue for the first fiscal year ending on or after June 15, 1999, and follow the schedule below:

Total Annual Revenue In the First Fiscal Year Ending After June 15, 1999	**GASB No. 43 OPEB Standards for the Plan's Financial Statements will be Effective for Periods Beginning After**	**GASB No. 45 OPEB Standards for the Employer's Financial Statements will be Effective for Periods Beginning After**
Phase 1 Govts. - $100 million or more	December 15, 2005	December 15, 2006
Phase 2 Govts. - $10 million or more, but less than $100 million	December 15, 2006	December 15, 2007
Phase 3 Govts. – Less than $10 million	December 15, 2007	December 15, 2008

Unlike pension plans, OPEB plans often do not have a formal document detailing the specific terms of the plan. Under GASB No. 43 and No. 45 the benefits to be accounted for are those provided by the *substantive plan* – loosely defined as the benefits covered by the plan as understood by the employer and plan members at the time of each actuarial valuation. The substantive plan provisions used in this valuation are summarized in Section D.

GASB also requires that the calculations assume the terms of the substantive plan continue indefinitely. It has been argued that there is a likelihood future OPEB plan provisions would be different than the current substantive plan (due to rising healthcare costs or social changes) and therefore liabilities based on the current substantive plan may overstate what will actually occur. However, the GASB Statement is designed to measure liabilities for the plan as it currently exists. While it may be reasonable to assume future changes in the OPEB plan for other purposes, recognition of anticipated changes is not allowed for purposes of accounting for OPEB.

The specific items required to be disclosed on an OPEB sponsor's financial statements are described in detail in GASB Nos. 43 and 45. In general terms, though, the plan sponsor is required to disclose an annual OPEB cost, the funded status of the plan and the funding progress on the valuation date.

Although GASB does not require OPEB contributions, it has chosen to call the base component of the annual OPEB cost the Annual Required Contribution, or ARC. The ARC consists of the cost of benefits accruing in a year plus an amount calculated to amortize any unfunded actuarial accrued liability over a period of not more than 30 years.

The funded status of the plan is a ratio of the plan's assets (if any) to the actuarial accrued liability on the valuation date. The plan is also required to disclose the cumulative difference between the ARC and the employer's actual contribution to the plan. This amount is known as the Net OPEB Obligation (NOO). Each year, the NOO accumulates with interest, plus the difference between the ARC and actual contributions for the year, plus some technical adjustments. **For most plans the NOO is set to zero as of the effective date of the GASB OPEB standard. It is the NOO, and not the actuarial accrued liability, that will be disclosed on the employers' Statement of Net Assets.**

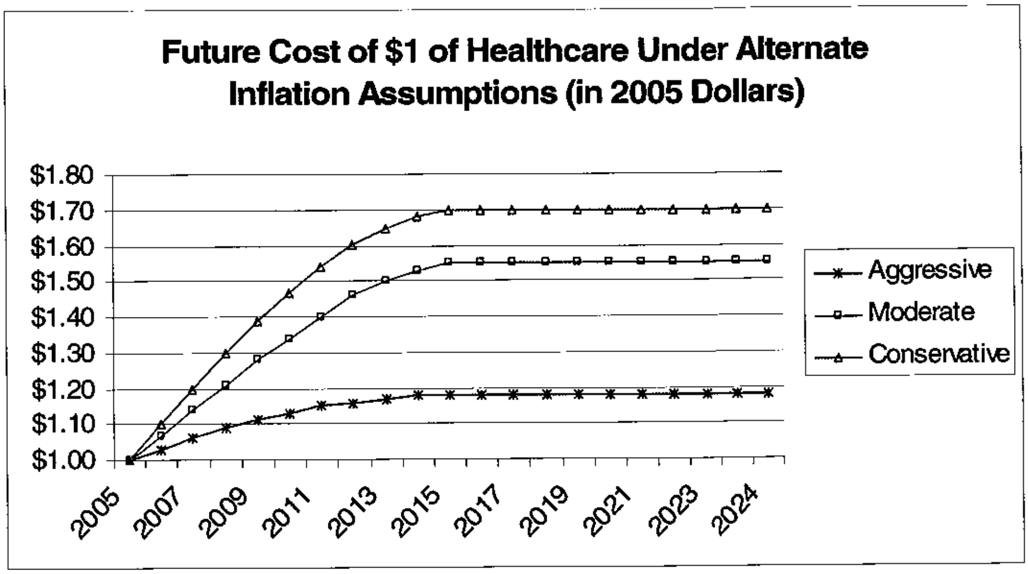
OPEB SPECIFIC ASSUMPTIONS

In any long-term actuarial valuation (such as for pensions and OPEB), certain demographic, economic and behavioral assumptions must be made concerning the population, investment discount rates, and the benefits provided. These actuarial assumptions form the basis for the actuarial model which is used to project the future population, benefits to be provided, and contributions to be collected. The investment return rate assumption is used to discount the future benefits to a present value on the valuation date. While assumptions such as future rates of retirement and mortality are similar for both OPEB and pension plans, there are some additional assumptions required when projecting benefits for a healthcare plan.

The cost of providing medical services has been increasing more rapidly than prices in general for many years. During the period from 1955 to 2005 general inflation averaged 4.0%, while health expenditures increased by an average of about 10% per year. If this trend is projected to continue for years to come, it implies that years from now virtually all our expenditures will be for health care. The seemingly more reasonable alternative is that in the not too distant future medical expense inflation will stabilize at a level at or near general inflation. It is on this basis that we project that retiree health care costs will continue to exceed general inflation in the near term, but by less each year until leveling off at an ultimate rate that is similar to general price increases.

Health care increase rates used in this valuation lie within a range of reasonable assumptions, and are described in Section G of this report. The healthcare increase rate assumption has a major effect on the calculation of plan liabilities. To illustrate the effect of differing future medical inflation rates, the chart below projects the growth of $1 of healthcare benefits under three sets of assumptions.

In this illustration, each set of assumptions trends smoothly to an assumed long term rate of inflation over the next ten years: The assumption set labeled "Conservative" begins at a rate of 10% in excess of general inflation, the "Moderate" assumption begins at a rate of 7% in excess of general inflation, while the "Aggressive" assumption begins at a rate of 3% in excess of general inflation.



The chart above shows that the cost of providing health care is expected to increase over 50% in inflation-adjusted dollars over the next 20 years, using the "Moderate" healthcare increase assumption set. To put this in perspective, assuming health care increases are brought under control almost immediately, as in the "Aggressive" assumption set, implies future per capita healthcare costs will be expected to increase less than 20% over current levels. In addition to the per capita health care inflation, costs are expected to rise as the retiree population increases.

The selection of an investment return rate also has a major impact on the calculation of the reported GASB OPEB expense.

It is important to note that GASB Statements No. 43 and No. 45 require the selection of an interest rate assumption to be based on the expected long-term rate of return on the assets expected to pay the OPEB when due. GASB states that the return should be based on expected returns of:

- Plan assets – if the sponsor has been contributing the ARC on a regular basis;
- The employer's general assets – where no OPEB assets have been accumulated;
- A blend of plan and employer assets – in cases where OPEB assets exist but the plan is contributing amounts less than the ARC.

ACTUARIAL COST METHOD

GASB Statement No. 45 provides some flexibility to governmental employers (and their actuaries) in the use of various actuarial cost methods. It should be noted that an actuarial cost method determines a contribution or expense by assigning portions of the present value of projected benefits to various years with the general goal of accruing the cost of benefits over the working lifetime of the employees. The choice of a particular method does not change the ultimate cost of the promised benefits.

The Entry Age Normal actuarial cost method has been used to calculate the GASB ARC for this valuation. Using the plan benefits, the present health premiums and a set of actuarial assumptions, the anticipated future payments are projected. The entry age method then provides for a systematic funding for these anticipated payments. The yearly ARC is computed to cover the cost of benefits being earned by covered members as well as to amortize a portion of the unfunded accrued liability. If experience is in accordance with the assumptions used, the ARC will increase at approximately the same rate as active member payroll, and the ARC as a percentage of payroll will remain basically level on a year to year basis. This is both an acceptable and reasonable cost method. The use of another actuarial cost method would produce different results.

OPEB PREFUNDING

Many employers fund retiree heath care benefits using the pay-as-you-go (or cash disbursement) method. The employer's annual contribution for these benefits is equal to the actual disbursements during the year for health care benefits for retired employees. This method of funding will result in increasing contributions over time. First, per capita cash disbursements will tend to increase from year to year as the cost of health care services, or the utilization of these services increase. Second, the number of retired members is likely to increase for years to come. The more retirees, the greater the disbursements as a percentage of employee payroll.

A retiree health care plan is similar to a defined benefit pension plan, in that promises are made to employees to provide them with a benefit payable at some future date. For defined benefit pension plan sponsors a common funding objective is to contribute annual amounts to a fund which will i) remain level as a percentage of active member payroll, and ii) when combined with present assets and future investment return will be sufficient to meet the financial obligations of the Plan to current and future retirees.

The ultimate determination as to the level of pre-funding will be the result of decisions made in an attempt to reconcile the often conflicting needs of benefit security for members and fiscal responsibility for the City. The GASB accounting standards noted in the previous section of the report can factor into decisions concerning the level of pre-funding.

SECTION B

VALUATION RESULTS

Development of the Annual Required Contribution for the Other Postemployment Benefits Fiscal Year Beginning July 1, 2007

Contributions for	Development of the Annual Required Contribution for July 1, 2007 - June 30, 2008		
	General	Police & Fire	Total
Normal Cost			
Normal Retirement	$ 756,811	$ 804,166	$ 1,560,977
Early Retirement	0	0	0
Termination Benefits	26,992	21,531	48,523
Death in Service	24,916	15,071	39,987
Disability	34,259	43,061	77,320
Future Refund of Member Contributions	0	0	0
Total Normal Cost	$ 842,978	$ 883,829	$ 1,726,807
Annual Active Member Contribution	0	0	0
Employer Normal Cost	842,978	883,829	1,726,807
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 30 years)	2,978,451	3,469,647	6,448,098
Annual Required Contribution (ARC)	3,821,429	4,353,476	8,174,905
Projected Payroll for the Fiscal Year Beginning July 1, 2007	10,381,494	10,765,272	21,146,766
ARC as a Percentage of Projected Payroll	36.81%	40.44%	38.66%
ARC Per Active Participant	19,107	28,831	23,290

The unfunded actuarial accrued liabilities were amortized as a level percent of active member payroll over a period of 30 years. A 30-year amortization period for unfunded actuarial accrued liabilities is the maximum period that complies with GASB requirements.

DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY AS OF JUNE 30, 2006

	General	Police & Fire	Total
A. Present Value of Future Benefits			
1. Retirees and Beneficiaries	$35,757,989	$42,786,320	$ 78,544,309
2. Vested Terminated Members	1,181,094	0	1,181,094
3. Active Members	22,422,310	25,439,929	47,862,239
Total Present Value of Future Benefits	$59,361,393	$68,226,249	$127,587,642
B. Present Value of Future Employer Normal Costs	8,362,602	8,814,405	17,177,007
C. Present Value of Future Contributions from Current Active Members	0	0	0
D. Actuarial Accrued Liability (A.-B.-C.)	50,998,791	59,411,844	110,410,635
E. Actuarial Value of Assets	0	0	0
F. Unfunded Actuarial Accrued Liability (D.-E.)	50,998,791	59,411,844	110,410,635

The Unfunded Actuarial Accrued Liability (UAAL) is not booked as an expense all in one year and does not appear in the Employer's Statement of Net Assets. Nevertheless, it is reported in the Notes to the Financial Statements and in the Required Supplementary Information. These are information sections within the employer's financial statements.

COMMENT A: One of the key assumptions used in any valuation of the cost of post-employment benefits is the rate of return on Plan assets. Higher assumed investment returns will result in a lower ARC. Lower returns will tend to increase the computed ARC. Based on information from the plan sponsor, we have calculated the liability and the resulting ARC using an assumed long term rate of investment similar to the Retirement System. If the Plan Sponsor chooses to pre-fund with contributions less than the ARC (or not prefund at all), GASB requires the use of a lower rate of return on assets. Use of such an interest rate would considerably increase the ARC and the net OPEB obligation that is disclosed on the employer's financial statement.

The ARC shown in this report has been calculated assuming that approximately the full ARC will be contributed each year. It is expected to increase at the same rate as the projected increase in active member payroll (3.5% per year). If an amount materially less than the full ARC is contributed, different assumptions would have to be used that would produce a much higher ARC. Shown below are results under 2 scenarios; 1) The City pays benefits on a pay-as-you-go basis, 2) The City contributes the full ARC each year. If the City's policy is to contribute an amount less than the full ARC but more than a pay-as-you-go basis, the results would fall between these amounts. Please consult with your auditor for the appropriate interest rate to use.

Employment Group	4.00% Pay as You Go	7.75% Current
General		
ARC ($)	$ 5,011,147	$ 3,821,429
ARC (%)	48.27%	36.81%
Police & Fire		
ARC ($)	$ 5,984,415	$ 4,353,476
ARC (%)	55.59%	40.44%
Total		
ARC ($)	$10,995,562	$8,174,905
ARC (%)	52.00%	38.66%

COMMENT B: Based on the number of plan members as of this valuation, the plan sponsor is required by GASB to perform annual actuarial valuations at least biennially. An annual actuarial valuation will recompute the required contribution rate each year. This will permit fluctuations and trends in experience to be reflected in the contribution rate on a regular basis.

COMMENT C: The ARC shown in this report has been calculated to increase at the same rate as the projected increase in active member payroll (3.5% per year).

COMMENT D: The contribution rates shown include amortization of the unfunded actuarial accrued liability over 30 years. This is the maximum time period permitted by the Governmental Accounting Standards Board Statements No. 43 and No. 45. A shorter amortization period would result in a higher ARC.

COMMENT E: The computed contribution rate increased from 28.05% in the June 30, 2004 valuation to 38.66% in the June 30, 2006 valuation. The primary reasons for the increases are discussed below:

- Overall payroll increased less than the assumed growth rate. As a result, the ARC calculated as a percent of payroll increased by approximately 4.5%. Please note, however, that the dollar amount will remain relatively level since the dollar amount is derived from a lower payroll base.
- Actuarial assumptions, including rates of mortality, health care inflation, wage inflation assumption and retiree health care premiums were revised since the last valuation. The approximate effect on the computed contribution rate was about 4.5% of payroll.
- No contributions (other than pay as you go contributions) have been made to a trust. Since assets are lower than expected, the unfunded liability is higher than expected. The approximate effect on the computed contribution rate was 1.5% of payroll.

COMMENT F: GASB Statement No. 45 stipulates that Plan assets must be placed in a trust or equivalent arrangement that meets the following criteria:

- Employer contributions to the Plan are irrevocable
- Assets are dedicated to providing benefits to retirants and their beneficiaries
- Assets are legally protected from creditors

Our calculations assume that the City will establish a qualified trust in which to deposit the annual required contribution amount.

SECTION C

RETIREE PREMIUM RATE DEVELOPMENT

Initial 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 non-Medicare retirees is developed by adjusting the demographic differences between the actives and retirees to reflect this implicit rate subsidy for the retirees. For the Medicare eligible retirees, the premium rate will be used as the basis of the initial per capita cost without adjustments since the rate reflects the actual claims experience of the post-65 retiree group.

For the current retirees, the premium rates from the different health plans offered were blended. For the employees retired after June 30, 2006, only the plans that are available to these retirees were combined.

Age graded and sex distinct premiums are utilized in 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 specific age/sex combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.

Based on the guidance provided by GASB on issues related to Medicare Part D payments to State and Local Governments effective as of June 30, 2006, an employer should apply the measurement requirements of GASB Statement No. 45 to determine the actuarial accrued liabilities, the annual required contribution of the employer, and the annual OPEB cost without reduction for Retiree Drug Subsidy (RDS) payments. Therefore, the impact of the RDS that is part of the Medicare Prescription Drug Improvement and Modernization Act of 2003 is not reflected in this report.

We have not "age graded' the dental premium rate for this valuation, since dental claims do not vary significantly by age. The monthly per member dental premium is $40.81 for both pre-65 and post-65 retirees.

The monthly one-person premium including medical and prescription drug benefits at select ages:

Future Retirees

For Those Not Eligible for Medicare		
Age	**Male**	**Female**
45	$439.49	$575.37
50	594.59	673.71
55	777.12	798.81
60	976.28	938.42

For Those Eligible for Medicare		
Age	**Male**	**Female**
65	$515.28	$474.51
70	594.37	534.46
75	659.86	585.61

Current Retirees

For Those Not Eligible for Medicare		
Age	**Male**	**Female**
45	$ 454.59	$595.14
50	612.02	696.86
55	803.82	826.26
60	1,009.83	970.67

For Those Eligible for Medicare		
Age	**Male**	**Female**
65	$519.12	$478.04
70	598.80	538.44
75	664.77	589.97

SECTION D

SUMMARY OF BENEFIT PROVISIONS

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 below);
- to spouses of eligible retirees during the retirees' lifetime;
- to surviving spouses 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 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.

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
Local 270M & 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

SECTION E

SUMMARY OF PARTICIPANT DATA

TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2006
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
20-24	3							3	$ 137,788
25-29	15	4						19	913,848
30-34	12	13	4					29	1,648,950
35-39	10	23	28	3				64	3,906,686
40-44	9	15	19	22	3			68	4,212,425
45-49	7	17	13	21	12	2		72	4,191,629
50-54	5	14	4	15	10	4		52	2,940,140
55-59	6	6	3	7	2	2	1	27	1,540,254
60-64	1	6	4	2				13	676,494
65 & Over		1	2		1			4	263,444
Totals	**68**	**99**	**77**	**70**	**28**	**8**	**1**	**351**	**$20,431,658**

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

Age: 44.8 Years

Service: 10.5 Years

Annual Pay: $49,118

GENERAL ACTIVE MEMBERS AS OF JUNE 30, 2006 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
20-24	1							1	$ 38,396
25-29	5	2						7	277,168
30-34	4	4	3					11	508,181
35-39	6	11	3					20	856,234
40-44	7	9	9	5	2			32	1,702,179
45-49	7	17	8	11	5	2		50	2,546,620
50-54	5	13	2	10	4	3		37	1,788,775
55-59	6	6	3	7	1	1	1	25	1,372,938
60-64	1	6	4	2				13	676,494
65 & Over		1	2		1			4	263,444
Totals	**42**	**69**	**34**	**35**	**13**	**6**	**1**	**200**	**$10,030,429**

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

Age:	47.2	years
Service:	10.8	years
Annual Pay:	$68,882	

POLICE AND FIRE ACTIVE MEMBERS AS OF JUNE 30, 2006
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
20-24	2							2	$ 99,392
25-29	10	2						12	636,680
30-34	8	9	1					18	1,140,769
35-39	4	12	25	3				44	3,050,452
40-44	2	6	10	17	1			36	2,510,246
45-49			5	10	7			22	1,645,009
50-54		1	2	5	6	1		15	1,151,365
55-59					1	1		2	167,316
60-64									
65 & Over									
Totals	**26**	**30**	**43**	**35**	**15**	**2**		**151**	**$10,401,229**

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

Age:	47.2	years
Service:	10.8	years
Annual Pay:	$50,152	

TOTAL RETIRED AND DEFERRED MEMBERS AS OF JUNE 30, 2006
BY ATTAINED AGE

Attained Age	Retired Members
Under 55	26
55-59	59
60-64	51
65 & Over	250
Totals	**386**

The number counts above only include those retirees who have elected to receive retiree health care coverage (including the $2,400 per year waiver) through the City of Royal Oak retiree health care plan.

Attained Age	Deferred Members
Under 55	4
55-59	1
60-64	0
65 & Over	0
Totals	**5**

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.

SECTION F

GASB ACCOUNTING SCHEDULES

GASB Statements No. 43 and No. 45
Required Supplementary Information

Valuation Date	June 30, 2006
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent Open
Remaining Amortization Periods	30 Years
Asset Valuation Method	N/A
Actuarial Assumptions:	
Investment Rate of Return	7.75%
Projected Salary Increases	3.5% - 7.3%
Health Care Cost Trend Rate	11% Initial 3.5% Ultimate

SECTION G

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

VALUATION METHODS

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.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent-of-payroll contributions. The UAAL was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level percent-of-payroll required to fully amortized the UAAL over a 30 year period beginning on the valuation date. This UAAL payment does not reflect any payments expected to be made between the valuation date and the fiscal year for which the contributions in this report have been calculated.

Actuarial Value of System Assets. There were no assets reported to us to be used in conjunction with this 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 4.25% 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 Ages	Merit and Seniority General	Merit and Seniority Police/Fire	Base (Economic)	Increase Next Year General	Increase Next Year Police/Fire
20	3.84%	3.00%	3.50%	7.34%	6.50%
25	3.12%	3.00%	3.50%	6.62%	6.50%
30	2.68%	3.00%	3.50%	6.18%	6.50%
35	2.37%	2.10%	3.50%	5.87%	5.60%
40	2.14%	0.78%	3.50%	5.64%	4.28%
45	1.68%	0.24%	3.50%	5.18%	3.74%
50	1.14%	0.14%	3.50%	4.64%	3.64%
55	0.66%	0.04%	3.50%	4.16%	3.54%
60	0.16%	0.00%	3.50%	3.66%	3.50%
65	0.00%	0.00%	3.50%	3.50%	3.50%
Ref	5	225	0.035		

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

The payroll growth rate for financing Unfunded Actuarial Accrued Liabilities was assumed to be 3.5% per year.

The mortality table was 110% of 1994 Group Annuity Mortality Table.

Sample Attained Ages	**Probability of Dying Next Year**		**Future Life Expectancy (years)**	
	Men	**Women**	**Men**	**Women**
45	0.174%	0.107%	34.46	38.81
50	0.284%	0.157%	29.80	34.03
55	0.487%	0.252%	25.29	29.33
60	0.877%	0.488%	21.01	24.78
65	1.599%	0.950%	17.08	20.51
70	2.610%	1.510%	13.60	16.60
75	4.093%	2.495%	10.51	12.96
80	6.823%	4.334%	7.85	9.75
Ref	#261x1.1sb0yrs	#262x1.1sb0yrs		

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For active members, the probabilities of dying before retirement were based upon the same mortality table as members dying after retirement and the probabilities of each benefit payment being made after retirement.

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

Percent of Eligible Active Members Retiring Within the Next Year			
Retirement Age	**General & PSA**	**Retirement Service**	**Police & Fire**
50	15%	25	35%
51	10%	26	35%
52	10%	27	35%
53	10%	28	20%
54	10%	29	20%
55	10%	30	20%
56	10%	31	20%
57	10%	32	20%
58	10%	33	20%
59	10%	34	20%
60	10%	35	20%
61	10%	36	20%
62	30%	37	20%
63	15%	38	20%
64	15%	39	20%
65	50%	40	100%
66	40%		
67	40%		
68	40%		
69	40%		
70	100%		
Ref	625		576

Rates of disability among active members.

	Percent Becoming Disabled Within Next Year			
Sample	**General**		**Police/Fire**	
Ages	**Males**	**Females**	**Males**	**Females**
20	0.07%	0.03%	0.10%	0.10%
25	0.09%	0.05%	0.15%	0.15%
30	0.10%	0.07%	0.25%	0.25%
35	0.14%	0.13%	0.30%	0.30%
40	0.21%	0.19%	0.70%	0.70%
45	0.32%	0.28%	0.80%	0.80%
50	0.52%	0.45%	0.95%	0.95%
55	0.92%	0.76%	1.10%	1.10%
Ref	#33x1	#34x1	#45x1	#45x1

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.

Sample Ages	Service Index	Percent of Active Members Separating Within Next Year: General Males	General Females	Police/Fire Males	Police/Fire 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	5.00%	5.00%	3.50%	3.50%
25		5.00%	5.00%	3.50%	3.50%
30		4.50%	4.50%	2.90%	2.90%
35		3.55%	3.55%	1.50%	1.50%
40		1.45%	1.45%	0.60%	0.60%
45		0.75%	0.75%	0.50%	0.50%
50		0.75%	0.75%	0.50%	0.50%
55		0.75%	0.75%	0.50%	0.50%
Ref		29 #55x1	29 #55x1	30 #54x1	30 #54x1

Health cost increases – See table below.

Year Beginning July 1,	Medical & Drug	Dental
2007	11.0%	6.0%
2008	10.5	5.0
2009	10.0	4.0
2010	9.0	3.5
2011	8.0	3.5
2012	7.0	3.5
2013	6.0	3.5
2014	5.0	3.5
2015	4.0	3.5
2016 & Later	3.5	3.5

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 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.

APPENDIX

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.

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 healthcare 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.