

**CITY OF MADISON HEIGHTS GENERAL OTHER  
POSTEMPLOYMENT BENEFITS**  
ACTUARIAL VALUATION REPORT  
AS OF JUNE 30, 2012

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February 15, 2013

Ms. Melissa Marsh  
Assistant City Manager  
City of Madison Heights  
300 West 13 Mile Road  
Madison Heights, Michigan 48071

Dear Ms. Marsh:

Submitted in this report are the results of an Actuarial Valuation of the benefit values for General Employees associated with the employer financed retiree health care provided by the City of Madison Heights. The date of the valuation was June 30, 2012, effective for the fiscal years beginning July 1, 2013 and July 1, 2014. This report was prepared at the request of the City of Madison Heights.

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 Madison Heights only in its entirety and only with the permission of the City of Madison Heights.

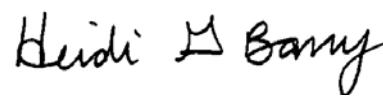
The valuation was based upon information, furnished by the City, concerning retiree health care benefits, individual members, and asset information. Data was checked for internal consistency, but was not otherwise audited.

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

Both of the undersigned are Members of the American Academy of Actuaries (MAAA) and together meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

  
Randall J. Dziubek, ASA, EA, MAAA

  
Heidi G. Barry, A.S.A.,MAAA

RJD/HGB:sc

C2601

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## EXECUTIVE SUMMARY

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## **EXECUTIVE SUMMARY**

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### **Annual Required Contribution**

This report presents the Annual Required Contribution calculated in compliance with the accounting requirements of Governmental Accounting Standards Board (GASB) Statement No. 45. In addition, the Plan may need to comply with GASB Statement No. 43. Please consult with legal counsel and your auditors to determine whether you have a Plan for GASB Statement No. 43 purposes.

The Annual Required Contribution (ARC) for the fiscal year beginning July 1, 2013 was determined to be \$2,743,417. Actual claims and premiums paid on behalf of retirees including the implicit subsidy may be treated as employer contributions in relation to the ARC if paid from outside of plan assets. The expected employer portion of the claims and premium amounts paid is estimated to be \$1,363,329 for the fiscal year beginning July 1, 2013.

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 GASB Statement No. 45.

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

## EXECUTIVE SUMMARY

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### **Liabilities and Assets**

The present value of all benefits expected to be paid to current plan members as of June 30, 2012 is \$35,727,208. The actuarial accrued liability, which is the portion of the above amounts attributable to service accrued by plan members as of June 30, 2012, is \$33,130,423. (These results are based on an 8% discount rate.) The assets currently set aside for GASB OPEB purposes as of June 30, 2012 are \$6,249,452.

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## **SECTION A**

### VALUATION RESULTS

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**DEVELOPMENT OF THE ANNUAL REQUIRED CONTRIBUTION  
FOR THE OTHER POSTEMPLOYMENT BENEFITS  
AS OF JULY 1, 2013**

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Contributions for	Development of the Annual Required Contribution for July 1, 2013 - June 30, 2014							
	Dept Heads/Non- Union	Supervisors	Municipal	Dispatchers	DPS	Courthouse	Total	
Normal Cost								
Normal Retirement	\$ 35,365	\$ 13,311	\$ 56,289	\$ 16,584	\$ 61,302	\$ 17,575	\$ 200,426	
Early Retirement	13,672	14,050	44,724	7,692	25,567	0	105,705	
Termination Benefits	0	168	1,175	585	3,060	2,772	7,760	
Death-in-Service	729	303	1,446	400	1,382	235	4,495	
Disability	547	0	0	215	0	314	1,076	
Life Insurance	91	34	90	31	197	26	469	
Total Normal Cost	\$ 50,404	\$ 27,866	\$ 103,724	\$ 25,507	\$ 91,508	\$ 20,922	\$ 319,931	
Amortization of Unfunded Actuarial								
Accrued Liabilities	\$ 205,083	\$ 351,798	\$ 532,348	\$ (4,338)	\$ 1,245,190	\$ 123,048	\$ 2,453,129	
Amortization period	28 years	28 years	28 years	28 years	24 years	24 years		
<b>Annual Required Contribution (ARC)</b>	<b>\$ 250,855</b>	<b>\$ 376,879</b>	<b>\$ 626,617</b>	<b>\$ 18,848</b>	<b>\$ 1,328,174</b>	<b>\$ 142,044</b>	<b>\$ 2,743,417</b>	
Projected Payroll for the Fiscal Year								
Beginning July 1, 2013	\$ 911,481	\$ 336,134	\$ 903,510	\$ 307,679	\$ 987,149	\$ 261,527	\$ 3,707,480	
<b>Annual Required Contribution (ARC) as a Percentage of Projected Payroll</b>	<b>27.52%</b>	<b>112.12%</b>	<b>69.35%</b>	<b>6.13%</b>	<b>134.55%</b>	<b>54.31%</b>	<b>74.00%</b>	
<b>Annual Required Contribution (ARC) for the Fiscal Year Beginning July 1, 2014</b>	<b>\$ 250,313</b>	<b>\$ 376,399</b>	<b>\$ 625,373</b>	<b>\$ 18,830</b>	<b>\$ 1,327,042</b>	<b>\$ 141,896</b>	<b>\$ 2,739,854</b>	
Projected Payroll for the Fiscal Year								
Beginning July 1, 2014	\$ 898,445	\$ 333,044	\$ 890,075	\$ 306,855	\$ 973,534	\$ 259,099	\$ 3,661,052	
<b>Annual Required Contribution (ARC) as a Percentage of Projected Payroll</b>	<b>27.86%</b>	<b>113.02%</b>	<b>70.26%</b>	<b>6.14%</b>	<b>136.31%</b>	<b>54.77%</b>	<b>74.84%</b>	

**The assumptions used to calculate the liabilities shown above include an 8.0% investment return rate.**

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over 24 years for Court and DPS and 28 years for other groups. A 30-year amortization period for unfunded actuarial accrued liabilities is the maximum period that complies with GASB requirements.

The ARC the year beginning July 1, 2012 was \$1,858,244 or 49.19% of payroll.

**DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY**  
**AS OF JUNE 30, 2012**

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	<b>Dept Heads/Non- Union</b>	<b>Supervisors</b>	<b>Municipal</b>	<b>Dispatchers</b>	<b>DPS</b>	<b>Courthouse</b>	<b>Total</b>
A. Present Value of Future Benefits							
1. Retirees and Beneficiaries	\$2,018,609	\$3,579,368	\$4,451,462	\$ 0	\$10,745,969	\$ 859,083	\$21,654,491
2. Vested Terminated Members	0	0	0	0	0	0	0
3. Active Members	<u>2,336,106</u>	<u>1,037,678</u>	<u>3,787,908</u>	<u>808,764</u>	<u>4,932,002</u>	<u>1,170,259</u>	<u>14,072,717</u>
Total Present Value of Future Benefits	\$4,354,715	\$4,617,046	\$8,239,370	\$808,764	\$15,677,971	\$2,029,342	\$35,727,208
B. Present Value of Future Employer Normal Costs	390,406	219,101	842,855	265,144	712,603	166,676	2,596,785
C. Present Value of Future Contributions from Current Active Members	0	0	0	0	0	0	0
D. Actuarial Accrued Liability (A.-B.-C.)	3,964,309	4,397,945	7,396,515	543,620	14,965,368	1,862,666	33,130,423
E. Actuarial Value of Assets <sup>1</sup>	1,534,200	572,042	1,534,602	513,505	1,661,796	433,307	6,249,452
F. Unfunded Actuarial Accrued Liability (D.-E.)	\$2,430,110	\$3,825,904	\$5,861,913	\$ 30,115	\$13,303,572	\$1,429,358	\$26,880,971
G. Funded Ratio (E./D.)	38.7%	13.0%	20.7%	94.5%	11.1%	23.3%	18.9%

<sup>1</sup> Allocated based on valuation payrolls on pages C-4 to C-6.

**The assumptions used to calculate the liabilities shown above include an 8.0% investment return rate.**

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.

The Unfunded Actuarial Accrued Liability as of June 30, 2010 was \$18,053,416 and the funded ratio was 17.7%.

## COMMENTS

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**COMMENT A:** One of the key assumptions used in any valuation of the cost of postemployment 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. We have calculated the liability and the resulting ARC using an assumed long term rate of investment return of 8.0%. An 8.0% assumed return may be appropriate for determining the ARC when the Plan Sponsor has a policy of contributing the entire ARC each year and the assets are invested in such a manner as to expect an 8.0% return. The rate of return assumption is determined by the Plan sponsor in conjunction with your auditors.

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

**COMMENT C:** The contribution rates shown include amortization of the unfunded actuarial accrued liability over 28 years for non-Court/DPS members, and 24 years for Court/DPS members. Thirty years is the maximum time period permitted by the GASB Statement No. 45. Shorter amortization periods would result in a higher ARC.

**COMMENT D:** Actual claims and/or premiums paid on behalf of retirees may be treated as employer contributions in relation to the ARC if paid from outside of plan assets. For the fiscal year ending June 30, 2014, the amount of estimated claims and/or premiums paid by the employer on behalf of retirees including the effect of the implicit rate subsidy under GASB is \$1,363,329. For the fiscal year ending June 30, 2015, the amount of estimated claims and/or premiums paid by the employer on behalf of retirees including the effect of the implicit rate subsidy under GASB is \$1,455,451.

**COMMENT E:** All groups are now closed to new entrants, therefore, their unfunded actuarial accrued liability is amortized as a level dollar amount in order to comply with GASB requirements as required by GASB. The overall cost of benefits for these groups is unchanged, but the contributions are accelerated due to this change. This is the primary reason for the increase in the Annual Required Contribution from the previous valuation.

**COMMENT F:** For purposes of computing the Unfunded Actuarial Accrued Liability, the assets contributed prior to the valuation date were allocated for all members based on the associated valuation payrolls of the groups. Going forward, we recommend either segregating these funds or tracking contribution and benefit payments separately and allocating income on a pro rata basis.

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## **SECTION B**

### **RETIREE PREMIUM RATE DEVELOPMENT**

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## RETIREE PREMIUM RATE DEVELOPMENT

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Since the self-insured claims data was not sufficient for developing per capita costs, the fully-insured equivalent premium rates provided by the City were utilized to determine the appropriate premium rates. The premiums for the next valuation should be development based on the Plan's actual experience.

Initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The fully-insured rates provided by Madison Heights 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 cost 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 Medicare premium rates are used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group.

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 benefit options available to future retirees are different than current retirees. We have developed separate premium rates for future retirees in order to reflect the benefit differences.

## RETIREE PREMIUM RATE DEVELOPMENT (CONCLUDED)

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

### Future Retirees

#### For Those Not Eligible for Medicare

Age	Male	Female
45	\$ 593.83	\$ 777.43
50	803.40	910.30
55	1,050.03	1,079.34
60	1,319.14	1,267.98

#### For Those Eligible for Medicare

Age	Male	Female
65	\$ 798.97	\$ 735.74
70	921.60	828.70
75	1,023.13	908.01

### Current Retirees

#### For Those Not Eligible for Medicare

Age	Male	Female
45	\$ 611.43	\$ 800.46
50	827.20	937.27
55	1,081.14	1,111.31
60	1,358.22	1,305.55

#### For Those Eligible for Medicare

Age	Male	Female
65	\$ 805.30	\$ 741.58
70	928.91	835.28
75	1,031.25	915.21



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John Mallows, FSA, MAAA

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## **SECTION C**

### **SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA**

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**CITY OF MADISON HEIGHTS GENERAL  
OTHER POSTEMPLOYMENT BENEFITS  
SUMMARY OF BENEFITS AS OF JUNE 30, 2012**

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**PLAN PARTICIPANTS**

Employees of the City of Madison Heights Retiree Health Care Plan are eligible to receive retiree health care benefits.

**NORMAL RETIREMENT BENEFITS**

Eligibility conditions for retiree health care benefits under a normal retirement are as follows:

**Non-Union and Department Heads Members:** Age 55 with 25 years of service. Employees hired after 9/28/2009 will not have retiree health care benefits. Instead, they will have a Health Care Savings Plan (established through MERS) and will purchase their own insurance.

**Supervisors and Assistants Members:** Age 55 with 25 years of service. Employees hired after 8/24/2009 will not have retiree health care benefits. Instead, they will have a Health Care Savings Plan (established through MERS) and will purchase their own insurance.

**MEU Members:** Age 55 with 25 years of service. Employees hired after 5/27/2009 will not have retiree health care benefits. Instead, they will have a Health Care Savings Plan (established through MERS) and will purchase their own insurance.

**Court Members:** Age 55 with 25 years of service Employees hired after 10/1/2006 will not have retiree health care benefits. Instead, they will have a Health Care Savings Plan (established through MERS) and will purchase their own insurance. (5 current Court employees have opted for a HSA in lieu of retiree health care – they have not been included in the valuation.)

**DPS Members:** Age 55 with 25 years of service Employees hired after 7/1/2005 will not have retiree health care benefits. Instead, they will have a Health Care Savings Plan (established through MERS) and will purchase their own insurance.

**DEFERRED RETIREMENT BENEFITS**

City of Madison Heights does not provide deferred retiree health care coverage for members terminating employment with less than 25 years of service.

**DUTY DISABILITY RETIREMENT BENEFITS**

Eligibility conditions for retiree health care benefits under a duty disability retirement are as follows:

**Non-Union and Dept Head Members:** No age or service restrictions. Benefits commence immediately.

**MEU and DPS Members:** Health insurance continues for 18 months from date of injury.

**Supervisors and Assistants:** Health insurance continues for two years from date of injury.

**CITY OF MADISON HEIGHTS GENERAL  
OTHER POSTEMPLOYMENT BENEFITS  
SUMMARY OF BENEFITS AS OF JUNE 30, 2012**

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**NON-DUTY DISABILITY RETIREMENT BENEFITS**

City of Madison Heights General Retirement Health Care Plan does not provide retiree health care coverage for members retiring under non-duty disability retirement with less than 25 years.

**DUTY DEATH-IN-SERVICE RETIREMENT BENEFITS**

Eligibility conditions for retiree health care benefits under a duty death retirement are as follows:

**All Members:** No age or service restrictions. Benefits commence immediately.

**NON-DUTY IN SERVICE RETIREMENT BENEFITS**

Eligibility conditions for retiree health care benefits under a non-duty death retirement are as follows:

**All Members:** 25 years of service. Benefits commence immediately.

**BENEFITS FOR RETIRED EMPLOYEES**

**All Members:**

**Member:** City pays 100% of the premiums for base plan. Retiree may pay difference to purchase a more expensive plan.

**Department Heads and Non-Union Spouse:** City pays 100% of premiums for retiree's spouse at time of retirement. Coverage continues to surviving spouses of deceased retirees. (Limited to spouse at time of retirement.)

**Supervisors & Assistants, MEU and DPS Spouse:** City continues to pay 100% of premiums limited to the least expensive City plan. If the spouse wants coverage that is more expensive, they pay the difference between the coverage they chose and the least expensive plan.

If retiree obtains employment from an employer who provides medical coverage, the member, spouse and eligible dependent are not covered by City's coverage where applicable for duration of employment.

**NON-MEDICARE AND MEDICARE-ELIGIBLE PROVISIONS**

All retirees are required to enroll in Medicare Part A and B once eligible.

**CITY OF MADISON HEIGHTS GENERAL  
OTHER POSTEMPLOYMENT BENEFITS  
SUMMARY OF BENEFITS AS OF JUNE 30, 2012**

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**LIFE INSURANCE COVERAGE**

City provides life insurance coverage of retirees in the amount of \$10,000.

*This is a brief summary of the City of Madison Heights Retiree Health Care Benefit provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.*

**ACTIVE MEMBERS AS OF JUNE 30, 2012**  
**BY ATTAINED AGE AND YEARS OF SERVICE**

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**NON-UNION/DEPARTMENT HEADS**

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
30-34									
35-39		1						1	\$ 107,406
40-44			1					1	93,333
45-49			1	1	1			3	324,838
50-54				1		1		2	148,787
55-59			1		1			2	221,809
60-64									
<b>Totals</b>		<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>		<b>9</b>	<b>\$ 896,173</b>

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

**Age:** 49.5  
**Service:** 16.7  
**Annual Pay:** \$99,575

**SUPERVISORS & ASSISTANTS**

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
30-34									
35-39	1			1				2	\$ 127,308
40-44									
45-49					2			2	134,127
50-54									
55-59				1				1	72,712
60-64									
<b>Totals</b>	<b>1</b>		<b>2</b>		<b>2</b>			<b>5</b>	<b>\$ 334,147</b>

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

**Age:** 45.7 years  
**Service:** 13.9 years  
**Annual Pay:** \$66,829

**ACTIVE MEMBERS AS OF JUNE 30, 2012**  
**BY ATTAINED AGE AND YEARS OF SERVICE**

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**MEU**

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
30-34		3						3	\$ 128,281
35-39									
40-44	1		2	1	1			5	229,459
45-49			2	1				3	128,561
50-54			1	2	1			4	202,830
55-59				1				1	45,548
60-64		1		1			1	3	161,729
<b>Totals</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>2</b>		<b>1</b>	<b>19</b>	<b>\$ 896,408</b>

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

**Age:** 47.6 years  
**Service:** 14.7 years  
**Annual Pay:** \$47,179

**DISPATCHERS**

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
30-34	1	1						2	\$ 95,501
35-39			2					2	103,771
40-44				1				1	55,715
45-49		1						1	44,967
50-54									
55-59									
60-64									
<b>Totals</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>				<b>6</b>	<b>\$ 299,954</b>

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

**Age:** 37.8 years  
**Service:** 10.7 years  
**Annual Pay:** \$49,992

**ACTIVE MEMBERS AS OF JUNE 30, 2012**  
**BY ATTAINED AGE AND YEARS OF SERVICE**

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**COURT**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10+	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
30-34									
35-39				1				1	\$ 49,709
40-44					1			1	58,257
45-49						1		1	50,340
50-54			1					1	46,758
55-59			1					1	48,044
<b>Totals</b>			<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>5</b>	<b>\$ 253,108</b>

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

**Age:** 47.0 years  
**Service:** 18.5 years  
**Annual Pay:** \$50,622

**DPS**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10+	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
30-34		2	2					4	\$ 191,152
35-39									
40-44				1	1			2	103,039
45-49		1			2			3	149,597
50-54		1	1	1	3	2		8	420,765
55-59					1	1		2	106,153
<b>Totals</b>		<b>4</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>3</b>		<b>19</b>	<b>\$ 970,706</b>

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

**Age:** 46.3 years  
**Service:** 17.8 years  
**Annual Pay:** \$51,090

**RETIRED MEMBERS AS OF JUNE 30, 2012**  
**BY ATTAINED AGE**

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**DEPT HEADS/NON-UNION**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	0	0	0
55-59	0	0	0
60-64	2	1	3
65 & Over	1	2	3
<b>Totals</b>	<b>3</b>	<b>3</b>	<b>6</b>

**SUPERVISORS**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	0	0	0
55-59	3	1	4
60-64	3	0	3
65 & Over	1	0	1
<b>Totals</b>	<b>7</b>	<b>1</b>	<b>8</b>

**MUNICIPAL**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	0	0	0
55-59	0	1	1
60-64	1	2	3
65 & Over	3	9	12
<b>Totals</b>	<b>4</b>	<b>12</b>	<b>16</b>

**COURTHOUSE**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	0	0	0
55-59	0	0	0
60-64	0	2	2
65 & Over	1	0	1
<b>Totals</b>	<b>1</b>	<b>2</b>	<b>3</b>

**DPS**

Attained Age	Number of Retirees		
	Male	Female	Total
Under 55	3	0	3
55-59	4	0	4
60-64	8	0	8
65 & Over	8	2	10
<b>Totals</b>	<b>23</b>	<b>2</b>	<b>25</b>

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## SECTION D

### ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

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## VALUATION METHODS

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***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.*** The Unfunded Actuarial Accrued Liabilities (UAAL) were determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date and projected 12 months to the beginning of the fiscal year reflecting anticipated contributions.

**NON-UNION, MEU, DEPARTMENT HEADS AND SUPERVISORS & ASSISTANTS -** The UAAL amortization payment is the level dollar required to fully amortize the UAAL over a 28-year period beginning on the first day of the fiscal year for which the contributions in this report have been calculated.

**COURT AND DPS -** The UAAL amortization payment is the level dollar required to fully amortize the UAAL over a 24 year period beginning on the first day of the fiscal year for which the contributions in this report have been calculated.

## ACTUARIAL ASSUMPTIONS

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**Rate of Investment Return.** **8.0% per year**, compounded annually, net of expenses. This assumption is used to equate the value of payments due at different points in time.

**The mortality table** used to project the mortality experience of plan members is a 50% Male – 50% Female blend of the 1994 Group Annuity Mortality Table. For disabled retirees, the regular mortality tables are used with a 10-year set forward in ages to reflect the higher expected mortality rates of disabled members.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.26 %	0.14 %	30.69	34.89
55	0.44	0.23	26.15	30.17
60	0.80	0.44	21.83	25.59
65	1.45	0.86	17.84	21.28
70	2.37	1.37	14.29	17.30
75	3.72	2.27	11.12	13.60
80	6.20	3.94	8.37	10.31
Ref	#261x1sb0yrs0.5Unisex		#262x1sb0yrs0.5Unisex	

## ACTUARIAL ASSUMPTIONS (CONTINUED)

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

<b>Retirement Ages</b>	<b>Percent of Eligible Active Members Retiring within Next Year</b>	
	<b>Courthouse</b>	<b>All Other General Members</b>
50	18 %	
51	15	
52	10	
53	15	
54	20	
55	20	22 %
56	24	22
57	24	22
58	24	22
59	27	24
60	30	18
61	30	14
62	30	16
63	30	18
64	30	18
65	100	20
66		24
67		24
68		24
69		27
70		30
71		30
72		30
73		30
74		30
75		100
Ref	765	766

## ACTUARIAL ASSUMPTIONS (CONTINUED)

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

Retirement Ages	Percent of Eligible Active Members Retiring Early Within Next Year	
	All Groups Except Courthouse	
50	2	%
51	2	
52	3	
53	5	
54	8	
55	4	
Ref	1,654	

*Rates of separation from active membership* are used to estimate the number of employees at each age that are expected to terminate employment before qualifying for retirement benefits. The withdrawal rates do not apply to members eligible to retire, and do not include separation on account of death or disability.

Sample rates of separation from active employment are shown below:

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	18.00 %
	1	18.00
	2	16.00
	3	12.00
	4	10.00
25	5 & Over	9.00
	30	9.00
	35	7.00
	40	5.00
	45	4.00
	50	4.00
Ref	263	434

## ACTUARIAL ASSUMPTIONS (CONCLUDED)

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**Rates of disability** among active members are used to estimate the incidence of member disability in future years. 85% of disabilities were assumed to be non-duty related and 15% of disabilities were assumed to be duty related.

Sample Ages	Percent Becoming Disabled Within Next Year	
	Male	Female
20	0.02 %	0.02 %
25	0.02	0.02
30	0.02	0.02
35	0.06	0.06
40	0.06	0.06
45	0.11	0.11
50	0.24	0.24
55	0.41	0.41
Ref	#257x1	#257x1

**Health care trend rates** used in the valuation were as shown below.

Year	Medical and Prescription Drugs
2013	9.00 %
2014	8.50
2015	8.00
2016	7.50
2017	7.00
2018	6.50
2019	6.00
2020	5.50
2021	5.00
2022 & Later	4.50

**GASB STATEMENTS NO. 43 AND NO. 45**  
**REQUIRED SUPPLEMENTARY INFORMATION**

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Valuation Date	June 30, 2012
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Dollar Closed
Non-Union, MEU, Department Heads and Supervisors & Assistants	Level Dollar Closed
Court and DPS	
Remaining Amortization Periods	
Non-Union, MEU, Department Heads and Supervisors & Assistants	28 Years
Court and DPS	24 Years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Discount Rate	8.0% Per Year
Projected Salary Increases	4.5%
Valuation Health Care Cost Trend Rate	9% in 2013, grading to 4.5% in 2022

## SCHEDULE OF FUNDING PROGRESS

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Rounded to the Nearest \$1,000

Actuarial Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b)-(a)	Funded Ratio (a)/(b)	Active Member Covered Payroll (c)	Unfunded AAL as a Percentage of Active Member Covered Payroll ((b-a)/c)
2006	\$ 543	\$ 21,977	\$ 21,433	2.5 %	\$ 4,281	500.6 %
2008	2,389	21,497	19,108	11.1	4,371	437.1
2010	3,876	21,930	18,053	17.7	3,848	469.2
<b>2012</b>	<b>6,249</b>	<b>33,130</b>	<b>26,881</b>	<b>18.9</b>	<b>3,650</b>	<b>736.4</b>

This information is presented in draft form for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the City's financial statements.

## MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

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**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:** 70% of males and 70% of 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.

**Medicare Coverage:** Assumed to be available for all covered employees on attainment of age 65.

**Election Percentage:** It was assumed that 100% of eligible retirees will elect to receive retiree health care benefits through the City. Of those assumed to elect coverage, 70% 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.

For active employees who have opted out of the City's active health care plan, it was assumed they would elect retiree health care coverage upon retiring.

Active members who have chosen an HSA instead of city sponsored retiree healthcare have been excluded from the valuation.

**Excise Tax:** All costs were increased by 10% to reflect the projected excise tax from the Affordable Care Act.

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## **APPENDIX A**

### **OVERVIEW**

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## **GASB BACKGROUND**

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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. The information is designed to assist you in complying with Governmental Accounting Standards Board (GASB) Statements No. 43 and No. 45. 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 in the future when they retire.

GASB Statements No. 43 and No. 45 were released 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. Your auditor can assist you in determining which statements apply to your particular situation.

The specific items required to be disclosed on an OPEB sponsor's financial statements are described in detail in GASB Statements No. 43 and No. 45.

### **GASB Statement No. 45**

Among the requirements of Statement No. 45 are recognition each year of an expense called the Annual OPEB Cost, and the accumulation of a liability to be disclosed on the employer's Statement of Net Assets called the Net OPEB Obligation (NOO).

The fundamental items required to determine the Annual OPEB Cost and the NOO are:

- the Annual Required Contribution (ARC)
- the Employer's Contributions in relation to the ARC

Although GASB does not require OPEB contributions, it has chosen to call the base component of the annual OPEB cost the Annual Required Contribution. The ARC is provided in this report.

## **GASB BACKGROUND (CONCLUDED)**

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Paragraph 13g. of Statement No. 45 states:

“An employer has made a contribution in relation to the ARC if the employer has:

1. made payments of benefits directly to or on behalf of a retiree or beneficiary,
2. made premium payments to an insurer, or
3. irrevocably transferred assets to a trust, or equivalent arrangement in which Plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the Plan and are legally protected from creditors of the employer(s) or plan administrator.”

For each fiscal year shown in this report, we have provided the ARC and the estimated benefits and/or premiums (based on valuation assumptions).

The NOO is the cumulative difference between the Annual OPEB Cost each year and the Employer’s Contribution in relation to the ARC. The Annual OPEB Cost for a year is equal to:

- the ARC, plus
- interest on the prior year’s NOO, plus
- amortization of the prior year’s NOO.

The Annual OPEB Cost and NOO are generally developed by the Plan Sponsor’s auditor based on information contained herein and elsewhere.

### **GASB Statement No. 43**

If the Plan has assets for Statement No. 43 purposes, then certain additional information useful in complying with the Statement is contained in this report.

## **OPEB PRE-FUNDING**

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Many employers fund retiree health care benefits using the pay-as-you-go (or cash disbursement) method. Under this method, the employer's annual contribution is equal to the actual disbursements during the year for OPEB 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, increases. 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 to a fund, annual amounts which will i) remain level as a percentage of active member payroll, and ii) when combined with present assets and future investment return be sufficient to meet the financial obligations of the Plan to current and future retirees.

The GASB statements are not funding requirements. They are accounting standards that require plan sponsors to calculate the annual expense associated with OPEB using certain methods.

The ultimate determination as to the level of pre-funding will be the result of decisions made in an attempt to support benefit security for members and the fiscal management needs of the employer.

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## **APPENDIX B**

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## **GLOSSARY**

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**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.

## **GLOSSARY (CONCLUDED)**

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**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 is 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.