



**MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN**  
ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2012  
ROOSEVELT PARK, CITY OF (6107)

Spring, 2013

Roosevelt Park, City of

In care of:

Municipal Employees' Retirement System of Michigan  
1134 Municipal Way  
Lansing, Michigan 48917

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2012. The report includes the determination of liabilities and contribution rates resulting from the participation of Roosevelt Park, City of (6107) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is an independent public nonprofit organization that has partnered with Michigan municipalities for more than 65 years, helping them provide safe, secure retirement plans for their employees. Roosevelt Park, City of is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees under the Michigan Constitution and the MERS Plan Document.

The purpose of the December 31, 2012 annual actuarial valuation is to (i) measure funding progress, (ii) establish contribution requirements for the fiscal year beginning December 1, 2014, and (iii) provide actuarial information in connection with applicable Governmental Accounting Standards Board statements. This valuation report should not be relied upon for any other purpose.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2012 furnished by MERS' administrative staff. The data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. The MERS of Michigan Actuarial Services Department does not assume responsibility for the accuracy or completeness of the data used in this valuation.

The actuarial assumptions and methods are adopted by the Retirement Board. For this annual valuation, the Retirement Board adopted some revised actuarial assumptions. Please refer to the division-specific assumptions described in table(s) in this report, and to the Appendix on the MERS website at:

[www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2012AnnualActuarialValuation-Appendix.pdf](http://www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2012AnnualActuarialValuation-Appendix.pdf).

The actuarial assumptions used for this valuation produce results that we believe are reasonable.

To the best of our knowledge, this report is complete and accurate, was prepared in conformity with generally recognized actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and is in compliance with Act No. 220 of the Public Acts of 1996, as amended, and the MERS Plan Document as revised. All of the undersigned are employees of MERS, 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. The Retirement Board of the Municipal Employees' Retirement System of Michigan confirms that the System provides

for payment of the required employer contribution as described in Section 20m of Act No. 314 of 1965 (MCL 38.1140m).

**Please review the Comments on the Investment Markets.**

**This report was prepared at the request of the Retirement Board and may be provided only in its entirety by the municipality to other interested parties (MERS customarily provides the full report on request to related third parties such as the auditor for the municipality).**

Please contact MERS at <http://www.mersofmich.com/MERS/About-MERS/Contact-Us> if you have any questions.

Sincerely,

Alan Sonnanstine, MAAA, ASA

Cathy Nagy, MAAA, FSA

Jim Koss, MAAA, ASA

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## Executive Summary

### Required Employer Contributions

The computed minimum required employer contributions to the retirement system for the fiscal years beginning December 1, 2014 (2012 Valuation) and December 1, 2013 (2011 Valuation) are as follows:

Division	Percentage of Payroll		Monthly \$ Based on Valuation Payroll	
	2012 Valuation	2011 Valuation	2012 Valuation	2011 Valuation
01 - Gnrl NonUni	12.57%	16.42%	\$ 737	\$ 1,928
02 - Pol/Fire	17.73%	15.70%	4,137	3,191
10 - Gnrl Union	30.20%	27.19%	3,231	2,751
20 - PoliceNU	-	-	5,700	5,020
<b>Municipality Total</b>			<b>\$ 13,805</b>	<b>\$ 12,890</b>

The above employer contribution requirements are in addition to the member contributions, if any, shown in Table 2.

It is important to note that the contribution rates shown above are not expected to remain at present levels indefinitely. If future experience were to match the valuation assumptions exactly, the computed employer rates for divisions that are open to new hires would trend over time toward the long-term cost of system benefits, known as the Normal Cost (see Table 1). For underfunded divisions that are closed to new hires and are not linked to an open division, the computed employer dollar contribution would increase 5%-9% annually for 15 years under the Option B amortization policy (for divisions first reflected as closed in the 2012 valuation). Under the Option A amortization policy, the annual increases would be larger but would only continue for 10 years.

Contribution rates will change from one year to the next as a result of changes in benefit provisions, changes in the actuarial assumptions, and experience of the plan (investment experience and demographic experience).

The 2012 valuation reflects changes in actuarial assumptions and/or methods (see the [Appendix](#)). For benefit provision changes see Table 2.

### 2012 System Experience

Based on the smoothed Actuarial Value of Assets (Valuation Assets), the recognized rate of investment return for MERS overall was 5.4% (less than the 8% actuarial assumption). On average this will result in increases in computed employer contributions.

Demographic experience varied by division. This reflects what actually happened to participants (active members, retirees, and vested former members) compared to what was projected by the actuarial assumptions.

## 2012 Funded Position

The ratio of the Valuation Assets to the Actuarial Accrued Liability for Roosevelt Park, City of in aggregate is 66%; last year's ratio was 68%.

## Comments on the Investment Markets

The dramatic price declines across the world financial markets in 2008 led to increased volatility unlike any experienced in decades. From 2009 to 2012, financial markets experienced price appreciation driven largely by government monetary policy and a rebound in economic activities; although at a slower pace than historic past recession recoveries. MERS' portfolio recovered with average annual investment returns of over 10%. While investors world-wide continue to focus on economic concerns and market volatility, equity markets have rebounded, particularly in the United States. The S&P has rebounded 109% from the March 9, 2009 bottom to December 31, 2012.

At this time, MERS maintains the 8% annual return assumption on investments in the belief that over the long term this is achievable. For example, MERS' 30 year return was 9.3% on December 31, 2012. MERS regularly monitors the investment return assumption to make sure it is reasonable compared to long term expectations.

The actuarial value of assets (funding value), used to determine both your funded status and your required employer contribution, is based on a 10-year smoothed value of assets. Only a portion (five-tenths, for 2008 - 2012) of the 2008 investment market losses was recognized in this actuarial valuation report. This reduces the volatility of the valuation results, which affects your required employer contribution and actuarial funded percentage.

As of December 31, 2012 the actuarial value of assets is 114% of market value (down from 121% in 2011). This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 8% investment return assumption.

If the December 31, 2012 valuation results were based on market value on that date instead of 10-year smoothed funding value: i) the funded percent of your entire municipality would be 58% (instead of 66%); and ii) your total employer contribution requirement for the fiscal year starting December 1, 2014 would be \$ 194,016 (instead of \$ 165,660). If the investment markets do not fully make up for the 2008 losses, employer contribution requirements may rise. MERS' investment strategy employs diversification using various asset categories (stocks, bonds, and to a smaller extent real estate, commodities and private equity) to capture as much of the upside return as possible while managing acceptable risk. If contribution increases do become necessary, MERS would attempt to implement them incrementally.

Remember that only five-tenths of the 2008 market losses are reflected in this actuarial valuation report. As was true for past market downturns, MERS expects the markets to continue to rebound. By the time the 2008 market losses would be fully recognized (over the following 5 years), future market gains are expected to partly or fully offset 2008 market losses. This smoothing method is a powerful tool for reducing the volatility of your required employer contributions. However, if the financial markets do not rebound, the result would be gradual increases in your employer contribution requirement over the next 5 years (as described above).

## Employer Contribution Details For the Fiscal Year Beginning December 1, 2014

**Table 1**

Division	Amort. Period for Unfund. Liab. <sup>4,5</sup>	Employer Contributions <sup>1</sup>			Blended Employer Contribut. <sup>7</sup>	GASB ARC <sup>6</sup>	Member Contribut. Conversion Factor <sup>2</sup>
		Normal Cost	Unfunded Accrued Liability	Total Required Employer Contribut.			
<b>Percentage of Payroll</b>							
01 - Gnrl NonUni	26	15.36%	-2.79%	12.57%			
02 - Pol/Fire	26	11.52%	6.21%	17.73%			
10 - Gnrl Union	26	13.59%	16.61%	30.20%			
20 - PoliceNU	23	-	-	-			
<b>Estimated Monthly Contribution<sup>3</sup></b>							
01 - Gnrl NonUni	26	\$ 900	\$ (163)	\$ 737			0.88%
02 - Pol/Fire	26	2,688	1,449	4,137			0.89%
10 - Gnrl Union	26	1,454	1,777	3,231			0.87%
20 - PoliceNU	23	0	5,700	5,700		92,232	
<b>Total Municipality</b>		<b>\$ 5,042</b>	<b>\$ 8,763</b>	<b>\$ 13,805</b>			
<b>Estimated Annual Contribution<sup>3</sup></b>		<b>\$ 60,504</b>	<b>\$ 105,156</b>	<b>\$ 165,660</b>			

<sup>1</sup> The above Employer contribution requirements are in addition to the Member contributions, if any, shown in Table 2.

<sup>2</sup> If Member contributions are increased/decreased by 1.00% of pay, the Employer contribution requirement will decrease/increase by the Member Contribution Conversion Factor.

<sup>3</sup> For divisions that are open to new hires, estimated contributions are based on valuation payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts (usually higher). For divisions that will have no new hires, invoices will be based on the above dollar amounts which are based on projected fiscal year payroll. See description of Open Divisions and Closed Divisions in the [Appendix](#).

<sup>4</sup> If projected assets exceed projected liabilities as of the beginning of the December 1, 2014 fiscal year, the negative unfunded accrued liability is amortized (spread) over 10 years. This amortization is used to reduce the employer contribution rate. Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions to not add across.

<sup>5</sup> If the division is closed to new hires, with new hires not covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the amortization period will decrease as follows: Under Amortization Option A, the period will decrease by 2 years each valuation year, until a minimum 5-year amortization is attained. Under Amortization Option B, the period will decrease by 2 years each valuation year, until reaching 15 years. Thereafter, the period will reduce by 1 year each valuation year, until a minimum 5-year amortization is attained. This will result in amortization payments that increase faster than the usual 4.5% each year. If the division is closed to new hires, with new hires (and transfers) covered by MERS Defined Benefit Plan or Hybrid Plan provisions, the standard open division amortization period will apply.

<sup>6</sup> For reporting and disclosure purposes under Statement Nos. 25 and 27 of the Governmental Accounting Standards Board, the annual required contribution (ARC) for this division is based on a 30 year level dollar amortization.

<sup>7</sup> For linked divisions, the employer will be invoiced the Total Required Employer Contribution rate shown above for each linked division (a contribution rate for the open division; a contribution dollar for the closed-but-linked division), unless the employer elects to contribute the Blended Employer Contribution rate shown above, by contacting MERS at 800-767-2308.

**Please see the Comments on the Investment Markets.**



## Benefit Provisions

### Table 2

#### 01 - Gnrl NonUni: Open Division

	2012 Valuation	2011 Valuation
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	Benefit B-4 (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>COLA for Current Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Member Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 10/7/1968)	Yes (Adopted 10/7/1968)

#### 02 - Pol/Fire: Open Division

	2012 Valuation	2011 Valuation
<b>Benefit Multiplier:</b>	2.25% Multiplier (80% max)	Benefit B-3 (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>COLA for Current Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Member Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 10/7/1968)	Yes (Adopted 10/7/1968)

#### 10 - Gnrl Union: Open Division

	2012 Valuation	2011 Valuation
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	Benefit B-4 (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>COLA for Current Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Member Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 10/7/1968)	Yes (Adopted 10/7/1968)

**Table 2** (continued)**20 - PoliceNU: Closed to new hires**

	<b>2012 Valuation</b>	<b>2011 Valuation</b>
<b>Benefit Multiplier:</b>	2.50% Multiplier (80% max)	Benefit B-4 (80% max)
<b>Normal Retirement Age:</b>	60	60
<b>Vesting:</b>	10 years	10 years
<b>Early Retirement (Unreduced):</b>	55/15	55/15
<b>Early Retirement (Reduced):</b>	50/25	50/25
<b>Final Average Compensation:</b>	5 years	5 years
<b>COLA for Future Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>COLA for Current Retirees:</b>	2.50% (Non-Compound)	2.50% (Non-Compound)
<b>Member Contributions:</b>	0%	0%
<b>Act 88:</b>	Yes (Adopted 10/7/1968)	Yes (Adopted 10/7/1968)

## Membership Summary

**Table 3**

Division	2012 Valuation		2011 Valuation		2012 Valuation		
	Number	Annual Payroll <sup>1</sup>	Number	Annual Payroll <sup>1</sup>	Average Age	Average Benefit Service <sup>2</sup>	Average Eligibility Service <sup>2</sup>
01 - Gnrl NonUni							
Active Members	1	\$ 70,279	3	\$ 140,967	37.2	3.3	4.3
Vested Former Members	5	38,561	4	18,910	47.4	5.7	17.0
Retirees and Beneficiaries	6	45,237	6	44,757	65.8		
02 - Pol/Fire							
Active Members	4	\$ 279,951	4	\$ 243,887	39.0	15.0	15.0
Vested Former Members	2	14,516	2	13,979	39.0	6.3	12.5
Retirees and Beneficiaries	1	23,411	1	22,993	83.0		
10 - Gnrl Union							
Active Members	3	\$ 128,350	3	\$ 121,395	38.7	8.2	8.2
Vested Former Members	1	7,966	1	7,966	43.0	9.0	10.7
Retirees and Beneficiaries	4	81,601	4	79,833	62.5		
20 - PoliceNU							
Active Members	0	\$ 0	0	\$ 0	0.0	0.0	0.0
Vested Former Members	1	14,200	1	14,200	54.0	15.4	15.4
Retirees and Beneficiaries	6	150,877	6	147,886	61.0		
<b>Total Municipality</b>							
<b>Active Members</b>	<b>8</b>	<b>\$ 478,580</b>	<b>10</b>	<b>\$ 506,249</b>	<b>38.7</b>	<b>11.0</b>	<b>11.1</b>
<b>Vested Former Members</b>	<b>9</b>	<b>75,243</b>	<b>8</b>	<b>55,055</b>	<b>45.8</b>	<b>7.3</b>	<b>15.1</b>
<b>Retirees and Beneficiaries</b>	<b>17</b>	<b>301,126</b>	<b>17</b>	<b>295,469</b>	<b>64.3</b>		
<b>Total Participants</b>	<b>34</b>		<b>35</b>				

<sup>1</sup> Annual payroll for active members; annual deferred benefits payable for vested former members; annual benefits being paid for retirees and beneficiaries.

<sup>2</sup> Description can be found under Miscellaneous and Technical Assumptions in the [Appendix](#).

## Reported Assets (Market Value)

**Table 4**

Division	2012 Valuation		2011 Valuation	
	Employer and Retiree <sup>1</sup>	Employee <sup>2</sup>	Employer and Retiree <sup>1</sup>	Employee <sup>2</sup>
01 - Gnrl NonUni	\$ 603,685	\$ 0	\$ 561,118	\$ 0
02 - Pol/Fire	588,255	73,368	512,818	0
10 - Gnrl Union	768,583	0	744,256	0
20 - PoliceNU	779,123	4,864	785,349	4,857
<b>Municipality Total</b>	<b>\$ 2,739,646</b>	<b>\$ 78,232</b>	<b>\$ 2,603,541</b>	<b>\$ 4,857</b>
<b>Combined Reserves</b>	<b>\$ 2,817,878</b>		<b>\$ 2,608,398</b>	

<sup>1</sup> Reserve for Employer Contributions and Benefit Payments

<sup>2</sup> Reserve for Employee Contributions

The December 31, 2012 valuation assets are equal to 1.143563 times the reported market value of assets (compared to 1.205815 as of December 31, 2011). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the [Appendix](#).

## Flow of Valuation Assets

**Table 5**

Year Ended 12/31	Contributions		Investment Income	Benefit Payments	Member Contrib. Refunds	Net Transfers	Valuation Asset Balance
	Employer	Member					
2002	\$ 74,469	\$ 0	\$ 73,886	\$ (105,619)	\$ 0	\$ 0	\$ 2,269,132
2003	93,177	0	178,280	(108,655)	0	0	2,431,934
2004	96,409	0	166,016	(111,607)	0	0	2,582,752
2005	99,637	0	166,212	(137,051)	0	0	2,711,550
2006	107,452	0	218,281	(157,923)	0	0	2,879,360
2007	117,349	0	233,962	(163,442)	0	0	3,067,229
2008	111,294	0	128,597	(199,234)	0	0	3,107,886
2009	106,202	0	115,736	(232,184)	0	0	3,097,640
2010	121,571	0	151,054	(242,387)	0	0	3,127,878
2011	135,632	0	146,834	(265,098)	0	0	3,145,246
2012	155,639	0	143,849	(295,680)	0	73,368	3,222,422

Note: Transfers in and out are usually related to the transfer of participants between municipalities, and to employer and member payments for service credit purchases (if any) that the governing body has approved.

## Actuarial Accrued Liabilities and Valuation Assets As of December 31, 2012

**Table 6**

Division	Actuarial Accrued Liability	Valuation Assets <sup>1</sup>	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
<b>01 - Gnrl NonUni</b>				
Active Members	\$ 36,992	\$ 50,846	137.5%	\$ (13,854)
Vested Former Members	179,651	179,651	100.0%	0
Retirees And Beneficiaries	459,855	459,855	100.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 676,498</b>	<b>\$ 690,352</b>	<b>102.0%</b>	<b>\$ (13,854)</b>
<b>02 - Pol/Fire</b>				
Active Members	\$ 847,405	\$ 563,072	66.4%	\$ 284,333
Vested Former Members	31,315	31,315	100.0%	0
Retirees And Beneficiaries	162,221	162,221	100.0%	0
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 1,040,941</b>	<b>\$ 756,608</b>	<b>72.7%</b>	<b>\$ 284,333</b>
<b>10 - Gnrl Union</b>				
Active Members	\$ 203,715	\$ 0	0.0%	\$ 203,715
Vested Former Members	25,639	0	0.0%	25,639
Retirees And Beneficiaries	1,000,603	878,923	87.8%	121,680
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 1,229,957</b>	<b>\$ 878,923</b>	<b>71.5%</b>	<b>\$ 351,034</b>
<b>20 - PoliceNU</b>				
Active Members	\$ 0	\$ 0	0.0%	\$ 0
Vested Former Members	145,511	4,864	3.3%	140,647
Retirees And Beneficiaries	1,790,244	891,675	49.8%	898,569
Pending Refunds	0	0	0.0%	0
<b>Total</b>	<b>\$ 1,935,755</b>	<b>\$ 896,539</b>	<b>46.3%</b>	<b>\$ 1,039,216</b>
<b>Total Municipality</b>				
<b>Active Members</b>	<b>\$ 1,088,112</b>	<b>\$ 613,918</b>	<b>56.4%</b>	<b>\$ 474,194</b>
<b>Vested Former Members</b>	<b>382,116</b>	<b>215,830</b>	<b>56.5%</b>	<b>166,286</b>
<b>Retirees and Beneficiaries</b>	<b>3,412,923</b>	<b>2,392,674</b>	<b>70.1%</b>	<b>1,020,249</b>
<b>Pending Refunds</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>	<b>0</b>
<b>Total Participants</b>	<b>\$ 4,883,151</b>	<b>\$ 3,222,422</b>	<b>66.0%</b>	<b>\$ 1,660,729</b>

<sup>1</sup> Includes both employer and member assets.

**Please see the Comments on the Investment Markets.**

See the MERS Fiscal Responsibility Policy on the MERS website at:

[http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/sec\\_43c.pdf](http://www.mersofmich.com/Portals/0/Assets/PageResources/MERS/PlanDocument/Pension/sec_43c.pdf).

## Actuarial Accrued Liabilities - Comparative Schedule

**Table 7**

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities	UAL as Percent of Annual Payroll
1998	\$ 1,707,909	\$ 1,646,725	96%	\$ 61,184	13%
1999	1,844,622	1,907,076	103%	(62,453)	0%
2000	2,332,758	2,108,885	90%	223,873	39%
2001	2,482,825	2,226,396	90%	256,429	44%
2002	2,646,526	2,269,132	86%	377,394	55%
2003	2,748,788	2,431,934	88%	316,854	46%
2004	3,096,476	2,582,752	83%	513,724	72%
2005	3,281,518	2,711,550	83%	569,968	88%
2006	3,490,952	2,879,360	82%	611,592	78%
2007	3,863,975	3,067,229	79%	796,746	116%
2008	4,307,378	3,107,886	72%	1,199,492	197%
2009	4,237,692	3,097,640	73%	1,140,052	193%
2010	4,331,996	3,127,878	72%	1,204,118	191%
2011	4,650,977	3,145,246	68%	1,505,731	297%
2012	4,883,151	3,222,422	66%	1,660,729	347%

Notes: Actuarial assumptions were revised for the 2000, 2004, 2008, 2009, 2010, 2011, and 2012 actuarial valuations.

## GASB 25 and GASB 27 Information

The following information has been prepared to provide the information necessary to comply with GASB Statements Number 25 and 27. Statement 25 is effective for fiscal years beginning after June 15, 1996 and Statement 27 is effective for fiscal years beginning after June 15, 1997.

All entries and the annual employer contribution amount were based on the actuarial methods and assumptions used in the December 31, 2012 actuarial valuation. The entry age normal actuarial method was used to determine the disclosure entries.

### GASB 25 Information (as of 12/31/2012)

Actuarial Accrued Liability		
Retirees and beneficiaries currently receiving benefits	\$	3,412,923
Terminated employees (vested former members) not yet receiving benefits		382,116
Non-Vested terminated employees (pending refunds of accumulated member contributions)		0
Current employees -		
Accumulated employee contributions including allocated investment income		73,368
Employer financed		<u>1,014,744</u>
Total Actuarial Accrued Liability	\$	4,883,151
Net Assets Available for Benefits at Actuarial Value	\$	<u>3,222,422</u>
(Market Value is 2,817,878)		
Unfunded (Overfunded) Actuarial Accrued Liability	\$	1,660,729

### GASB 27 Information (as of 12/31/2012)

Fiscal Year Beginning		December 1, 2014
Annual Required Contribution (ARC)	\$	189,492 <sup>1</sup>

<sup>1</sup> Based on valuation payroll (based on projected fiscal year payroll for divisions that will have no new hires). For divisions that are open to new hires the actual required contribution will be based on current monthly payroll (during the fiscal year beginning December 1, 2014) times the computed employer contribution rate(s) shown in Table 1. The ARC shown here is the sum of the ARC's calculated separately for each division.



## **GASB 27 Information (Used in the 12/31/2012 Annual Actuarial Valuation)**

### **Amortization Factors Used to Compute Employer Contribution Requirements Used for Funding Calculations and Most ARC Calculations (see below) (Payments Increase 4.5% per Year)**

Amortization Factor Used - Underfunded or Overfunded Liabilities (5 years)	0.221706
Amortization Factor Used - Underfunded or Overfunded Liabilities (6 years)	0.187731
Amortization Factor Used - Underfunded or Overfunded Liabilities (7 years)	0.163488
Amortization Factor Used - Underfunded or Overfunded Liabilities (8 years)	0.145330
Amortization Factor Used - Underfunded or Overfunded Liabilities (9 years)	0.131227
Amortization Factor Used - Underfunded or Overfunded Liabilities (10 years)	0.119963
Amortization Factor Used - Underfunded or Overfunded Liabilities (11 years)	0.110763
Amortization Factor Used - Underfunded or Overfunded Liabilities (12 years)	0.103112
Amortization Factor Used - Underfunded or Overfunded Liabilities (13 years)	0.096652
Amortization Factor Used - Underfunded or Overfunded Liabilities (14 years)	0.091128
Amortization Factor Used - Underfunded or Overfunded Liabilities (15 years)	0.086353
Amortization Factor Used - Underfunded or Overfunded Liabilities (16 years)	0.082185
Amortization Factor Used - Underfunded or Overfunded Liabilities (17 years)	0.078519
Amortization Factor Used - Underfunded or Overfunded Liabilities (18 years)	0.075270
Amortization Factor Used - Underfunded or Overfunded Liabilities (19 years)	0.072372
Amortization Factor Used - Underfunded or Overfunded Liabilities (20 years)	0.069773
Amortization Factor Used - Underfunded or Overfunded Liabilities (21 years)	0.067430
Amortization Factor Used - Underfunded or Overfunded Liabilities (22 years)	0.065308
Amortization Factor Used - Underfunded or Overfunded Liabilities (23 years)	0.063378
Amortization Factor Used - Underfunded or Overfunded Liabilities (24 years)	0.061616
Amortization Factor Used - Underfunded or Overfunded Liabilities (25 years)	0.060002
Amortization Factor Used - Underfunded or Overfunded Liabilities (26 years)	0.058519

### **Amortization Factor Used to Compute the GASB Annual Required Contribution (ARC) For Divisions that are Closed to New Hires (and new hires are not covered by MERS DB or Hybrid provisions in a linked division) If Division is Less than 100% Funded, and Uses a Funding Period over 15 Years**

Amortization Factor Used - Underfunded Liabilities (30 year level \$)	0.085453
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Assumptions: Continuous Payments; Interest at 8% Per Year

## Benefit Provision History

The following benefit provision history is provided by MERS. Any corrections to this history or discrepancies between this information and information displayed elsewhere in the valuation report should be reported to MERS. All provisions are listed by date of adoption.

### 01 - Gnrl NonUni

9/1/2011	Exclude Temporary Employees requiring less than 6 months
6/1/2011	Defining a day of work as 160 hours per month.
1/1/2009	E2 2.5% COLA for future retirees (06/01/2008)
1/1/2005	Benefit B-4 (80% max)
1/1/2005	E1 2.5% COLA for past retirees (01/01/2005)
1/1/1998	E 2% COLA Adopted (01/01/1998)
1/1/1998	E1 2.5% COLA for past retirees (01/20/1997)
1/1/1998	E Cola Adoption Date 01-01-1998
1/1/1998	E Cola Increase Amount 2
1/1/1998	E Cola Increase Type Percent
1/1/1996	E1 2.5% COLA for past retirees (01/01/1996)
1/1/1995	E1 2.5% COLA for past retirees (01/01/1995)
1/1/1994	E1 2.5% COLA for past retirees (01/01/1994)
6/1/1992	Benefit B-3 (80% max)
12/1/1988	Benefit F55 (With 15 Years of Service)
12/1/1987	Benefit C-2/Base C-1 (Old)
1/1/1987	E 2% COLA Adopted (01/01/1987)
12/1/1984	Member Contribution Rate 0.00%
12/1/1983	Member Contribution Rate 2.00%
7/1/1981	Member Contribution Rate 4.00%
2/1/1979	Benefit C-1 (Old)
10/7/1968	Covered by Act 88
2/1/1968	10 Year Vesting
2/1/1968	Benefit FAC-5 (5 Year Final Average Compensation)
2/1/1968	Benefit C (Old)
2/1/1968	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
2/1/1968	Fiscal Month - December

### 02 - Pol/Fire

9/1/2011	Exclude Temporary Employees requiring less than 6 months
6/1/2011	Defining a day of work as 160 hours per month.
7/1/2002	Temporary 20 Years & Out (07/01/2002 - 01/03/2003)
1/1/2002	E2 2.5% COLA for future retirees (12/01/2000)
12/1/2000	Benefit F55 (With 15 Years of Service)
1/1/1998	E Cola Increase Amount 2
1/1/1998	E 2% COLA Adopted (01/01/1998)
1/1/1998	E1 2.5% COLA for past retirees (01/20/1997)
1/1/1998	E Cola Adoption Date 01-01-1998
1/1/1998	E Cola Increase Type Percent
1/1/1996	E1 2.5% COLA for past retirees (01/01/1996)
1/1/1995	E1 2.5% COLA for past retirees (01/01/1995)

## Benefit Provision History

### 02 - Pol/Fire

1/1/1994	E1 2.5% COLA for past retirees (01/01/1994)
12/1/1992	Benefit B-3 (80% max)
12/1/1989	Benefit C-2/Base C-1 (Old)
1/1/1987	E 2% COLA Adopted (01/01/1987)
12/1/1984	Member Contribution Rate 0.00%
12/1/1983	Member Contribution Rate 2.00%
7/1/1981	Member Contribution Rate 4.00%
9/1/1980	Benefit C-1 (Old)
10/7/1968	Covered by Act 88
2/1/1968	10 Year Vesting
2/1/1968	Benefit FAC-5 (5 Year Final Average Compensation)
2/1/1968	Benefit C (Old)
2/1/1968	Member Contribution Rate 3.00% Under \$4,200.00 - Then 5.00%
2/1/1968	Fiscal Month - December

### 10 - Gnrl Union

9/1/2011	Exclude Temporary Employees requiring less than 6 months
6/1/2011	Defining a day of work as 160 hours per month.
5/1/2010	Benefit B-4 (80% max)
7/1/1997	Flexible E 2% COLA Adopted (07/01/1997)
7/1/1997	E Cola Adoption Date 07-01-1997
7/1/1997	E Cola Increase Amount 2
7/1/1997	E Cola Increase Type Percent
1/1/1997	E1 2.5% COLA for past retirees (12/01/1996)
1/1/1997	E2 2.5% COLA for future retirees (12/01/1996)
1/1/1996	E1 2.5% COLA for past retirees (01/01/1996)
1/1/1995	E1 2.5% COLA for past retirees (01/01/1995)
1/1/1994	E1 2.5% COLA for past retirees (01/01/1994)
6/1/1992	Benefit B-3 (80% max)
12/1/1988	Benefit C-2/Base C-1 (Old)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
12/1/1984	Member Contribution Rate 0.00%
12/1/1983	Member Contribution Rate 2.00%
7/1/1981	10 Year Vesting
7/1/1981	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1981	Member Contribution Rate 4.00%
7/1/1981	Benefit F55 (With 15 Years of Service)
10/7/1968	Covered by Act 88
2/1/1968	Fiscal Month - December

### 20 - PoliceNU

9/1/2011	Exclude Temporary Employees requiring less than 6 months
6/1/2011	Defining a day of work as 160 hours per month.
1/1/2009	E2 2.5% COLA for future retirees (06/01/2008)
1/1/2008	Temporary 25 Years & Out (01/01/2008 - 02/28/2008)

## Benefit Provision History

### 20 - PoliceNU

1/1/2006	E1 2.5% COLA for past retirees (01/01/2006)
1/1/2005	E1 2.5% COLA for past retirees (01/01/2005)
1/1/2005	Benefit B-4 (80% max)
7/1/2002	Temporary 20 Years & Out (07/01/2002 - 01/03/2003)
1/1/2000	E 2% COLA Adopted (01/01/2000)
1/1/2000	E Cola Adoption Date 01-01-2000
1/1/2000	E Cola Increase Amount 2
1/1/2000	E Cola Increase Type Percent
1/1/1998	E 2% COLA Adopted (01/01/1998)
1/1/1998	E1 2.5% COLA for past retirees (01/20/1997)
1/1/1996	E1 2.5% COLA for past retirees (12/18/1995)
1/1/1995	E1 2.5% COLA for past retirees (12/15/1994)
1/1/1994	E1 2.5% COLA for past retirees (06/30/1993)
6/1/1992	Benefit B-3 (80% max)
12/1/1988	Benefit F55 (With 15 Years of Service)
12/1/1987	Benefit C-2/Base C-1 (Old)
1/1/1987	E 2% COLA Adopted (01/01/1987)
12/1/1984	Member Contribution Rate 0.00%
12/1/1983	Member Contribution Rate 2.00%
7/1/1981	10 Year Vesting
7/1/1981	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1981	Member Contribution Rate 4.00%
10/7/1968	Covered by Act 88
2/1/1968	Fiscal Month - December

## Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

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Details on MERS plan provisions, actuarial assumptions, and actuarial methodology can be found in the [Appendix](#). Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

### Increase in Final Average Compensation

Division	FAC Increase Assumption
All Divisions	2.00%

### Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	100%

### Miscellaneous and Technical Assumptions

Loads – None.

### Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Option A