MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN

ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

PLEASANT RIDGE, CITY OF (6301)

Spring, 2015

Pleasant Ridge, 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, 2014. The report includes the determination of liabilities and contribution rates resulting from the participation of Pleasant Ridge, City of (6301) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is a nonprofit organization, independent from the State, that has provided retirement plans for municipal employees for more than 65 years. Pleasant Ridge, 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, 2014 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning July 1, 2016
- Provide actuarial information in connection with applicable Governmental Accounting Standards Board (GASB) statements

This valuation report should not be relied upon for any other purpose. Reliance on information contained in this report by anyone for anything other than the intended purpose could be misleading.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2014 furnished by MERS. In accordance with Actuarial Standards of Practice No. 23, the data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. CBIZ Retirement Plan Services 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 MERS Retirement Board, and are reviewed every five years in an Experience Study, which will be completed in 2015. 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-2014AnnualActuarialValuation-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 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).

This information is purely actuarial in nature. It is not intended to serve as a substitute for legal, accounting or investment advice.

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 associated third parties such as the auditor for the municipality). CBIZ Retirement Plan Services is not responsible for the consequences of any unauthorized use.

You should notify MERS if you disagree with anything contained in the report or are aware of any information that would affect the results of the report that have not been communicated to us. If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, that conditions have changed since the calculations were made, that the information provided in this report is inaccurate or is in anyway incomplete, or if you need further information in order to make an informed decision on the subject matter in this report, please contact your Regional Manager at 1.800.767.MERS(6377).

Sincerely,

Alan Sonnanstine, MAAA, ASA
Cathy Nagy, MAAA, FSA
Jim Koss, MAAA, ASA

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Executive Summary

Funded Ratio and Required Employer Contributions

The MERS Defined Benefit Plan is an agent multiple-employer plan, meaning that assets are pooled for investment purposes but separate trusts are maintained for each individual employer. Each municipality is responsible for their own plan liabilities; MERS does not borrow from one municipality's account to pay for another.

The funded ratio of a plan is the percentage of the dollar value of the accrued benefits that is covered by the actuarial value of assets.

Your Funded Ratio:

	12/31/2014	12/31/2013
Funded Ratio	57%	60%

Michigan Law requires that pension plans be pre-funded, meaning money is set aside now to pay for future benefits. Pension plans are usually funded by employer and employee contributions, and investment income.

How quickly a plan attains the 100% funding goal depends on many factors such as:

- The current funded ratio
- The future experience of the plan
- The amortization period

It is more important to look at the trend in the funded ratio over a period of time than at a particular point in time.

Your Required Employer Contributions:

Your minimum required employer contributions are shown in the following table. Employee contributions, if any, are in addition to the required employer contributions.

	Percentage of Payroll		Monthly $ Based on Valuation Payroll	
Valuation Date:	**12/31/2014**	**12/31/2013**	**12/31/2014**	**12/31/2013**
Fiscal Year Beginning:	**July 1, 2016**	**July 1, 2015**	**July 1, 2016**	**July 1, 2015**
Division				
01 - Gnrl Oth	-	-	$ 5,721	$ 5,066
02 - Police	-	-	9,684	8,690
10 - NonUnion	-	-	4,367	3,317
11 - City Mgr	-	-	847	702
12 - Non-Union after 7/1/20	4.40%	4.20%	261	233
20 - Police as of 7/1/2011	9.04%	9.75%	525	445
Municipality Total			**$ 21,405**	**$ 18,453**

Employee contribution rates reflected in the valuations are shown below:

	Employee Contribution Rate	
Valuation Date:	**12/31/2014**	**12/31/2013**
Division		
01 - Gnrl Oth	0.00%	0.00%
02 - Police	2.50%	2.50%
10 - NonUnion	0.00%	0.00%
11 - City Mgr	0.00%	0.00%
12 - Non-Union after 7/1/20	3.00%	3.00%
20 - Police as of 7/1/2011	2.50%	2.50%

For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate.

You may contribute more than the minimum required contributions, as these additional contributions will earn investment income, and later you may have to contribute less than otherwise. **MERS strongly encourages employers to contribute more than the minimum contribution shown above.**

Assuming that experience of the plan meets actuarial assumptions:

- To accelerate to a 100% funding ratio in 10 years, estimated monthly employer contributions for the entire employer would be $ 31,659, instead of $ 21,405.
- To accelerate to a 100% funding ratio in 20 years, estimated monthly employer contributions for the entire employer would be $ 22,775, instead of $ 21,405.

If you are interested in making additional contributions, please contact MERS and they can assist you with evaluating your options.

How and Why Do These Numbers Change?

In a defined benefit plan contributions vary from one annual actuarial valuation to the next as a result of the following:

- Changes in benefit provisions (see Table 2)
- Changes in actuarial assumptions and methods (see the Appendix)
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions

Actuarial valuations do not affect the ultimate cost of the plan; the benefit payments (current and future) determine the cost of the plan. Actuarial valuations only affect the timing of the contributions into the plan. Because assumptions are for the long term, plan experience will not match the actuarial assumptions in any given year (except by coincidence). Each annual actuarial valuation will adjust the required employer contributions up or down based on the prior year's actual experience.

Comments on the Investment Markets

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 9.17% on December 31, 2014. The MERS portfolio returned 6.49% in 2014; the two year (10.54%), three year (10.73%), four year (8.48%), and five year (9.59%) returns all exceed the 8% annual return assumption. When comparing these actual returns to the 8% net return assumption, deduct roughly .25% from these actual returns to reflect administrative expenses. It has now been seven years since the peak of the financial crisis and the stock market decline still weighs down MERS' medium term returns. This was a one in fifty year event comparable only to the Stock Market Crash of 1929 during the Great Depression. The stock market and economy have stabilized since 2008 and are on the long road to recovery. MERS regularly monitors the investment return assumption to make sure it is reasonable compared to long term expectations.

The actuarial value of assets, used to determine both your funded ratio and your required employer contribution, is based on a 10-year smoothed value of assets. Only a portion (seven-tenths, for 2008 through 2014) 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 funded ratio. The smoothed actuarial rate of return for 2014 was 5.90%.

As of December 31, 2014 the actuarial value of assets is 106% of market value. 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, 2014 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 54% (instead of 57%); and ii) your total employer contribution requirement for the fiscal year starting July 1, 2016 would be $ 271,020 (instead of $ 256,860).

The asset smoothing method is a powerful tool for reducing the volatility of your required employer contributions. **However, if the current 6% difference between the smoothed value and the market value of assets is not made up, the result would be gradual increases in your employer contribution requirement over the next few years (to around the levels described above).**

Risk Characteristics of Defined Benefit Plans

It is important to understand that retirement plans, by their nature, are exposed to certain risks. While risks cannot be eliminated entirely, they can be mitigated through various strategies. Below are a few examples of risk (this is not an all-inclusive list):

- Economic - investment return, wage inflation, etc.
- Demographic - longevity, disability, retirement, etc.
- Plan Sponsor and Employees - contribution volatility, attract/retain employees, etc.

The MERS Retirement Board adopts certain assumptions and methods to mitigate the economic and demographic risks, and the contribution volatility risks. For example, the investment risk is the largest economic risk and is mitigated by having a balanced portfolio and a clearly defined investment strategy. Demographic risks vary based on the age of the workforce and are mitigated by preparing special studies called experience studies on a regular basis to determine if the assumptions used are reasonable compared to the experience. Risk may be mitigated through a plan design that provides benefits that are sustainable in the long run. An Experience Study is completed every five years to review the assumptions and methods. The next Experience Study will be completed in 2015.

Alternate Scenarios to Estimate the Potential Volatility of Results ("What If Scenarios")

The calculations in this report are based on assumptions about long-term economic and demographic behavior. These assumptions will never materialize in a given year, except by coincidence. Therefore the results will vary from one year to the next. The volatility of the results depends upon the characteristics of the plan. For example:

- Open divisions that have substantial assets compared to their active employee payroll will have more volatile employer contribution rates due to investment return fluctuations.
- Open divisions that have substantial accrued liability compared to their active employee payroll will have more volatile employer contribution rates due to demographic experience fluctuations.
- Small divisions will have more volatile contribution patterns than larger divisions because statistical fluctuations are relatively larger among small populations.
- Shorter amortization periods result in more volatile contribution patterns.

The analysis in this section is intended to review the potential volatility of the actuarial valuation results. It is important to note that calculations in this report are mathematical estimates based upon assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation to the next, sometimes significantly depending on the group's size.

Many assumptions are important in determining the required employer contributions.

For example:

- Lower investment returns would result in higher required employer contributions, and vice-versa.
- Smaller than projected pay increases would lower required employer contributions.
- Reductions in the number of active employees would lower required contribution dollars, but would usually increase the contribution rate expressed as a percentage of (the now lower) payroll.
- Retirements at earlier ages than projected would usually increase required employer contributions.
- More non-vested terminations of employment than projected would decrease required contributions.
- More disabilities or survivor (death) benefits than projected would increase required contributions.
- Longer lifetimes after retirement than projected would increase required employer contributions.

In the table below, we show the impact of varying one actuarial assumption: the future annual rate of investment return. Lower investment returns would result in higher required employer contributions, and vice-versa.

The relative impact of each investment return scenario below will vary from year to year, as the participant demographics change. The impact of each scenario should be analyzed for a given year, not from year to year. The results in the table are based on the December 31, 2014 valuation, and are for the municipality in total, not by division.

	Assumed Future Annual Smoothed Rate of Investment Return			
	Lower Future Annual Returns		Valuation Assumption	Higher Returns
12/31/2014 Valuation Results	**6%**	**7%**	**8%**	**9%**
Accrued Liability	$ 6,913,185	$ 6,168,639	$ 5,545,429	$ 5,020,075
Valuation Assets	$ 3,161,483	$ 3,161,483	$ 3,161,483	$ 3,161,483
Unfunded Accrued Liability	$ 3,751,702	$ 3,007,156	$ 2,383,946	$ 1,858,592
Funded Ratio	46%	51%	57%	63%
Monthly Normal Cost	$ 7,969	$ 6,117	$ 4,705	$ 3,630
Monthly Amortization Payment	$ 22,159	$ 19,403	$ 16,700	$ 13,996
Total Employer Contribution[1]	$ 30,128	$ 25,520	$ 21,405	$ 17,626

[1] If assets exceed accrued liabilities for a division, the division's amortization payment is negative and is used to reduce the division's employer contribution requirement. If the overfunding credit is larger than the normal cost, the division's full credit is included in the municipality's amortization payment above but the division's total contribution requirement is zero. This can cause the displayed normal cost and amortization payment to not add up to the displayed total employer contribution.

Five Year Projection Scenarios

The following table illustrates the plan's projected liabilities and required employer contributions for the next five fiscal years, under three actuarial assumptions and future economic scenarios. All three scenarios take into account the 2008 financial losses that will continue to affect the smoothed rate of return for the next three years.

Valuation Year Ending 12/31	Fiscal Year Beginning 7/1	Actuarial Accrued Liability	Valuation Assets	Funded Percentage	Required Annual Employer Contribution[1]
8% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
2014	2016	$ 5,545,429	$ 3,161,483	57%	$ 263,088
2015	2017	5,659,000	3,181,100	56%	278,064
2016	2018	5,777,500	3,222,700	56%	295,472
2017	2019	5,903,100	3,279,800	56%	317,132
2018	2020	6,030,900	3,453,300	57%	327,352
7% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
2014	2016	$ 6,168,639	$ 3,161,483	51%	$ 314,196
2015	2017	6,287,800	3,169,100	50%	329,012
2016	2018	6,427,600	3,235,600	50%	345,552
2017	2019	6,554,300	3,352,500	51%	363,444
2018	2020	6,683,100	3,563,300	53%	372,908
6% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
2014	2016	$ 6,913,185	$ 3,161,483	46%	$ 371,604
2015	2017	7,037,400	3,169,200	45%	385,908
2016	2018	7,187,700	3,262,500	45%	402,088
2017	2019	7,326,800	3,438,400	47%	419,508
2018	2020	7,468,100	3,692,300	49%	425,744

[1] For an employer with any open divisions, this column will include the impact of projected increases in total payroll from 2014 to the applicable fiscal year. This will cause the projected contribution for the fiscal year beginning in 2016 to be higher than the Estimated Annual Contribution shown in Table 1.

The first scenario provides an estimate of required employer contributions based on current actuarial assumptions, and a projected 8% market return. The other scenarios may be useful if the municipality chooses to budget more conservatively, and make contributions in addition to the minimum requirements. The 7% and 6% projections provide an indication of the potential required employer contribution if MERS were to realize investment returns of 7% and 6% over the long-term.

Employer Contribution Details
For the Fiscal Year Beginning July 1, 2016

Table 1

Division	Amort. Period for Unfund. Liab.[4,5]	Employer Contributions[1] Normal Cost	Unfunded Accrued Liability	Total Required Employer Contribut.	Blended Employer Contribut.[7]	Employee Contribution Rate[6]	Employee Contribut. Conversion Factor[2]
Percentage of Payroll							
01 - Gnrl Oth	5	-	-	-		0.00%	
02 - Police	24	-	-	-	35.74%	2.50%	
10 - NonUnion	24	-	-	-	24.12%	0.00%	
11 - City Mgr	21	-	-	-		0.00%	
12 - Non-Union after 7/	24	4.38%	0.02%	4.40%	24.12%	3.00%	0.83%
20 - Police as of 7/1/2	24	8.88%	0.16%	9.04%	35.74%	2.50%	0.76%
Estimated Monthly Contribution[3]							
01 - Gnrl Oth	5	$ 0	$ 5,721	$ 5,721			
02 - Police	24	2,289	7,395	9,684			
10 - NonUnion	24	1,640	2,727	4,367			
11 - City Mgr	21	0	847	847			
12 - Non-Union after 7/	24	260	1	261			
20 - Police as of 7/1/2	24	516	9	525			
Total Municipality		**$ 4,705**	**$ 16,700**	**$ 21,405**			
Estimated Annual Contribution[3]		**$ 56,460**	**$ 200,400**	**$ 256,860**			

1 The above employer contribution requirements are in addition to the employee contributions, if any.

2 If employee contributions are increased/decreased by 1.00% of pay, the employer contribution requirement will decrease/increase by the Employee Contribution Conversion Factor. The conversion factor is usually under 1%, because employee contributions may be refunded at termination of employment, and not used to fund retirement pensions. Employer contributions will all be used to fund pensions.

3 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.

4 If projected assets exceed projected liabilities as of the beginning of the July 1, 2016 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.

5 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 it reaches 6 or 5 years. Then it decreases by 1 year each valuation year until the UAL is paid off. Under Amortization Option B, the period will decrease by 2 years each valuation year, until it reaches 16 or 15 years. Thereafter, the period will reduce by 1 year each valuation year, until the UAL is paid off. 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.

6 For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate.

7 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 Oth: Closed to new hires

	2014 Valuation	2013 Valuation
Benefit Multiplier:	1.70% Multiplier (no max)	1.70% Multiplier (no max)
Normal Retirement Age:	60	60
Vesting:	6 years	6 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
Act 88:	Yes (Adopted 10/14/1969)	Yes (Adopted 10/14/1969)

02 - Police: Closed to new hires, linked to Division 20

	2014 Valuation	2013 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	50/25	50/25
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	2.50%	2.50%
Act 88:	Yes (Adopted 10/14/1969)	Yes (Adopted 10/14/1969)

10 - NonUnion: Closed to new hires, linked to Division 12

	2014 Valuation	2013 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	50/25	50/25
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
Act 88:	Yes (Adopted 10/14/1969)	Yes (Adopted 10/14/1969)

Table 2 (continued)

11 - City Mgr: Closed to new hires

	2014 Valuation	2013 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/15	55/15
Early Retirement (Reduced):	50/25	50/25
Final Average Compensation:	5 years	5 years
COLA for Future Retirees:	2.50% (Non-Compound)	2.50% (Non-Compound)
Employee Contributions:	0%	0%
Act 88:	Yes (Adopted 10/14/1969)	Yes (Adopted 10/14/1969)

12 - Non-Union after 7/1/2011: Open Division, linked to Division 10

	2014 Valuation	2013 Valuation
Benefit Multiplier:	1.70% Multiplier (no max)	1.70% Multiplier (no max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	55/25	55/25
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	3%	3%
Act 88:	Yes (Adopted 10/14/1969)	Yes (Adopted 10/14/1969)

20 - Police as of 7/1/2011: Open Division, linked to Division 02

	2014 Valuation	2013 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	8 years	8 years
Early Retirement (Unreduced):	50/25	50/25
Early Retirement (Reduced):	55/15	55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	2.50%	2.50%
Act 88:	Yes (Adopted 10/14/1969)	Yes (Adopted 10/14/1969)

Participant Summary

Table 3

Division	2014 Valuation		2013 Valuation		2014 Valuation		
	Number	Annual Payroll[1]	Number	Annual Payroll[1]	Average Age	Average Benefit Service[2]	Average Eligibility Service[2]
01 - Gnrl Oth							
Active Employees	0	$ 0	0	$ 0	0.0	0.0	0.0
Vested Former Employees	5	27,291	5	27,291	55.3	10.1	10.1
Retirees and Beneficiaries	4	45,011	4	44,277	80.7		
02 - Police							
Active Employees	4	$ 263,799	4	$ 245,026	45.9	15.1	21.3
Vested Former Employees	3	10,004	2	7,522	50.5	5.3	16.3
Retirees and Beneficiaries	8	225,522	8	225,522	69.9		
10 - NonUnion							
Active Employees	2	$ 145,189	3	$ 191,094	42.0	16.3	16.3
Vested Former Employees	2	8,629	2	8,629	59.0	6.6	9.8
Retirees and Beneficiaries	2	51,729	1	1,547	61.2		
11 - City Mgr							
Active Employees	0	$ 0	0	$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	1	50,909	1	49,667	62.6		
12 - Non-Union after 7/1/							
Active Employees	2	$ 71,360	2	$ 66,506	26.6	2.6	2.6
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
20 - Police as of 7/1/201							
Active Employees	2	$ 69,689	1	$ 54,808	43.0	0.7	0.9
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	0	0	0.0		
Total Municipality							
Active Employees	**10**	**$ 550,037**	**10**	**$ 557,434**	**40.7**	**10.0**	**12.5**
Vested Former Employees	**10**	**45,924**	**9**	**43,442**	**54.6**	**8.0**	**11.9**
Retirees and Beneficiaries	**15**	**373,171**	**14**	**321,013**	**71.1**		
Total Participants	**35**		**33**				

1 Annual payroll for active employees; annual deferred benefits payable for vested former employees; annual benefits being paid for retirees and beneficiaries.

2 Description can be found under Miscellaneous and Technical Assumptions in the Appendix.

Reported Assets (Market Value)

Table 4

Division	2014 Valuation		2013 Valuation	
	Employer and Retiree[1]	Employee[2]	Employer and Retiree[1]	Employee[2]
01 - Gnrl Oth	$ 144,135	$ 3,672	$ 135,134	$ 3,664
02 - Police	1,487,582	107,049	1,521,844	100,139
10 - NonUnion	739,171	0	684,415	0
11 - City Mgr	479,819	0	485,303	0
12 - Non-Union after 7/1/2011	9,126	5,269	5,476	3,121
20 - Police as of 7/1/2011	5,186	1,699	1,045	380
Municipality Total	**$ 2,865,019**	**$ 117,689**	**$ 2,833,217**	**$ 107,304**
Combined Reserves	**$ 2,982,708**		**$ 2,940,521**	

1 Reserve for Employer Contributions and Benefit Payments

2 Reserve for Employee Contributions

The December 31, 2014 valuation assets are equal to 1.059937 times the reported market value of assets (compared to 1.061840 as of December 31, 2013). 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	Employer Contributions Required	Employer Contributions Additional	Employee Contributions	Investment Income	Benefit Payments	Employee Contribution Refunds	Net Transfers	Valuation Asset Balance
2004	$ 88,758		$ 0	$ 163,061	$ (177,870)	$ 0	$ 0	$ 2,591,780
2005	101,920		0	159,963	(232,510)	0	0	2,621,153
2006	99,876		0	208,637	(256,804)	0	0	2,672,862
2007	118,319		0	212,185	(254,582)	0	0	2,748,784
2008	128,291		0	114,100	(255,275)	0	0	2,735,900
2009	132,818		0	95,004	(251,834)	0	0	2,711,888
2010	148,890		0	132,246	(251,708)	0	0	2,741,316
2011	156,907	$ 0	3,799	132,838	(253,778)	0	0	2,781,082
2012	157,727	0	9,031	143,275	(237,970)	0	57,598	2,910,743
2013	186,278	0	8,815	178,918	(264,957)	0	102,565	3,122,362
2014	200,664	0	10,150	173,782	(345,475)	0	0	3,161,483

Notes:

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

Additional employer contributions, if any, are shown separately starting in 2011. Prior to 2011, additional contributions are combined with the required employer contributions.

In the actuarial valuation additional employer contributions are combined with required contributions and used to reduce computed future required employer contributions.

Actuarial Accrued Liabilities and Valuation Assets
As of December 31, 2014

Table 6

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - Gnrl Oth				
Active Employees	$ 0	$ 0	0.0%	$ 0
Vested Former Employees	228,733	3,672	1.6%	225,061
Retirees And Beneficiaries	279,275	152,994	54.8%	126,281
Pending Refunds	0	0	0.0%	0
Total	**$ 508,008**	**$ 156,666**	**30.8%**	**$ 351,342**
02 - Police				
Active Employees	$ 825,206	$ 107,049	13.0%	$ 718,157
Vested Former Employees	74,126	0	0.0%	74,126
Retirees And Beneficiaries	2,175,133	1,583,159	72.8%	591,974
Pending Refunds	0	0	0.0%	0
Total	**$ 3,074,465**	**$ 1,690,208**	**55.0%**	**$ 1,384,257**
10 - NonUnion				
Active Employees	$ 551,682	$ 51,724	9.4%	$ 499,958
Vested Former Employees	84,100	84,100	100.0%	0
Retirees And Beneficiaries	647,651	647,651	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 1,283,433**	**$ 783,475**	**61.0%**	**$ 499,958**
11 - City Mgr				
Active Employees	$ 0	$ 0	0.0%	$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	657,728	508,578	77.3%	149,150
Pending Refunds	0	0	0.0%	0
Total	**$ 657,728**	**$ 508,578**	**77.3%**	**$ 149,150**
12 - Non-Union after 7/1/2011				
Active Employees	$ 15,275	$ 15,258	99.9%	$ 17
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 15,275**	**$ 15,258**	**99.9%**	**$ 17**
20 - Police as of 7/1/2011				
Active Employees	$ 6,520	$ 7,298	111.9%	$ (778)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 6,520**	**$ 7,298**	**111.9%**	**$ (778)**

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
Total Municipality				
Active Employees	**$ 1,398,683**	**$ 181,329**	**13.0%**	**$ 1,217,354**
Vested Former Employees	**386,959**	**87,772**	**22.7%**	**299,187**
Retirees and Beneficiaries	**3,759,787**	**2,892,382**	**76.9%**	**867,405**
Pending Refunds	**0**	**0**	**0.0%**	**0**
Total Participants	**$ 5,545,429**	**$ 3,161,483**	**57.0%**	**$ 2,383,946**
The following results show the combined accrued liabilities and assets for each set of linked divisions. These results are already included in the table above.				
Linked Divisions 20, 02				
Active Employees	$ 831,726	$ 114,347	13.7%	$ 717,379
Vested Former Employees	74,126	0	0.0%	74,126
Retirees and Beneficiaries	2,175,133	1,583,159	72.8%	591,974
Pending Refunds	0	0	0.0%	0
Total	**$ 3,080,985**	**$ 1,697,506**	**55.1%**	**$ 1,383,479**
Linked Divisions 12, 10				
Active Employees	$ 566,957	$ 66,982	11.8%	$ 499,975
Vested Former Employees	84,100	84,100	100.0%	0
Retirees and Beneficiaries	647,651	647,651	100.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 1,298,708**	**$ 798,733**	**61.5%**	**$ 499,975**

1 Includes both employer and employee 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.

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2000	$ 2,694,694	$ 2,603,504	97%	$ 91,190
2001	2,926,263	2,549,981	87%	376,282
2002	3,041,853	2,469,503	81%	572,350
2003	3,259,096	2,517,831	77%	741,265
2004	3,559,624	2,591,780	73%	967,844
2005	3,779,317	2,621,153	69%	1,158,164
2006	3,826,485	2,672,862	70%	1,153,623
2007	3,959,143	2,748,784	69%	1,210,359
2008	4,137,479	2,735,900	66%	1,401,579
2009	4,147,589	2,711,888	65%	1,435,701
2010	4,291,886	2,741,316	64%	1,550,570
2011	4,592,932	2,781,082	61%	1,811,850
2012	4,681,628	2,910,743	62%	1,770,885
2013	5,185,947	3,122,362	60%	2,063,585
2014	5,545,429	3,161,483	57%	2,383,946

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

Division 01 - Gnrl Oth

Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	$ 631,884	$ 417,846	66%	$ 214,038
2005	630,034	385,265	61%	244,769
2006	631,757	364,130	58%	267,627
2007	633,868	338,892	53%	294,976
2008	636,510	299,430	47%	337,080
2009	643,218	248,680	39%	394,538
2010	598,172	207,307	35%	390,865
2011	600,737	173,213	29%	427,524
2012	479,890	171,938	36%	307,952
2013	496,862	147,381	30%	349,481
2014	508,008	156,666	31%	351,342

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

Table 9-01: Required Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Required Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2004	0	$ 0	$ 1,159	0.00%
2005	0	0	$ 1,386	0.00%
2006	0	0	$ 1,603	0.00%
2007	0	0	$ 1,895	0.00%
2008	0	0	$ 2,358	0.00%
2009	0	0	$ 3,047	0.00%
2010	0	0	$ 3,312	0.00%
2011	0	0	$ 4,186	0.00%
2012	0	0	$ 3,291	0.00%
2013	0	0	$ 5,066	0.00%
2014	0	0	$ 5,721	0.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

Division 02 - Police

Table 8-02: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	$ 2,461,629	$ 1,887,326	77%	$ 574,303
2005	2,617,402	1,888,193	72%	729,209
2006	2,655,862	1,900,964	72%	754,898
2007	2,731,994	1,933,656	71%	798,338
2008	2,811,699	1,897,983	68%	913,716
2009	2,784,602	1,848,095	66%	936,507
2010	2,883,690	1,831,678	64%	1,052,012
2011	2,592,377	1,573,633	61%	1,018,744
2012	2,760,682	1,609,951	58%	1,150,731
2013	3,000,021	1,722,286	57%	1,277,735
2014	3,074,465	1,690,208	55%	1,384,257

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

Table 9-02: Required Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Required Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2004	7	$ 418,485	16.14%	0.00%
2005	5	298,329	21.85%	0.00%
2006	6	331,763	20.80%	0.00%
2007	6	356,194	20.73%	0.00%
2008	6	371,786	23.39%	0.00%
2009	6	370,812	23.89%	0.00%
2010	6	379,493	26.06%	0.00%
2011	5	316,577	$ 7,717	2.50%
2012	5	309,108	$ 8,167	2.50%
2013	4	245,026	$ 8,690	2.50%
2014	4	263,799	$ 9,684	2.50%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

Division 10 - NonUnion

Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	$ 185,663	$ 114,126	61%	$ 71,537
2005	231,962	147,719	64%	84,243
2006	198,913	174,058	88%	24,855
2007	225,259	206,981	92%	18,278
2008	269,315	235,904	88%	33,411
2009	296,588	271,996	92%	24,592
2010	348,366	315,043	90%	33,323
2011	905,869	604,203	67%	301,666
2012	928,760	655,467	71%	273,293
2013	1,026,023	726,739	71%	299,284
2014	1,283,433	783,475	61%	499,958

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

Table 9-10: Required Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Required Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2004	5	$ 191,513	12.88%	0.00%
2005	4	170,851	13.54%	0.00%
2006	2	94,291	9.20%	0.00%
2007	3	143,436	12.78%	0.00%
2008	3	149,467	14.38%	0.00%
2009	3	149,664	16.18%	0.00%
2010	2	109,995	14.44%	0.00%
2011	3	185,714	$ 3,335	0.00%
2012	3	179,481	$ 3,039	0.00%
2013	3	191,094	$ 3,317	0.00%
2014	2	145,189	$ 4,367	0.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

Division 11 - City Mgr

Table 8-11: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2004	$ 280,448	$ 172,482	62%	$ 107,966
2005	299,919	199,976	67%	99,943
2006	339,953	233,710	69%	106,243
2007	368,022	269,255	73%	98,767
2008	419,955	302,583	72%	117,372
2009	423,181	343,117	81%	80,064
2010	461,658	387,288	84%	74,370
2011	492,238	429,828	87%	62,410
2012	507,962	469,331	92%	38,631
2013	655,006	515,314	79%	139,692
2014	657,728	508,578	77%	149,150

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

Table 9-11: Required Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Required Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2004	1	$ 67,851	21.73%	0.00%
2005	1	67,816	21.23%	0.00%
2006	1	72,659	21.40%	0.00%
2007	1	76,394	20.62%	0.00%
2008	1	83,915	20.79%	0.00%
2009	1	83,888	18.57%	0.00%
2010	1	89,487	18.11%	0.00%
2011	1	88,530	17.87%	0.00%
2012	1	88,672	16.60%	0.00%
2013	0	0	$ 702	0.00%
2014	0	0	$ 847	0.00%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

Division 12 - Non-Union after 7/1/2011

Table 8-12: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	$ 1,711	$ 205	12%	$ 1,506
2012	4,334	4,056	94%	278
2013	8,044	9,129	114%	(1,085)
2014	15,275	15,258	100%	17

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

Table 9-12: Required Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Required Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2011	1	$ 29,950	4.36%	3.00%
2012	1	31,000	4.13%	3.00%
2013	2	66,506	4.20%	3.00%
2014	2	71,360	4.40%	3.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

Division 20 - Police as of 7/1/2011

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2013	(9)	1,513	0%	(1,522)
2014	6,520	7,298	112%	(778)

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

Table 9-20: Required Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Required Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2011	0	$ 0	0.00%	0.00%
2013	1	54,808	9.75%	2.50%
2014	2	69,689	9.04%	2.50%

[1] For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

[2] For employee contribution rates that are not flat percentages, the rate shown is a weighted average flat employee contribution rate. For each valuation year, the required employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the required employer contribution will be adjusted.

GASB 68 Information

The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. Statement 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at www.mersofmich.com .

Actuarial Valuation Date:		12/31/2014
Measurement Date of Total Pension Liability (TPL):		12/31/2014

At 12/31/2014, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries currently receiving benefits:	15
Inactive employees entitled to but not yet receiving benefits:	10
Active employees:	10
	35

Covered employee payroll: (Needed for Required Supplementary Information)	$	550,037
Total Pension Liability as of 12/31/2013 measurement date:	$	5,261,293
Total Pension Liability as of 12/31/2014 measurement date:	$	5,405,689
Service Cost for the year ending on the 12/31/2014 measurement date:	$	67,290

Change in the Total Pension Liability due to:

- Benefit changes[1]:	$	0
- Differences between expected and actual experience[2]:	$	0
- Changes in assumptions[2]:	$	0

Average expected remaining service lives of all employees (active and inactive): 3

[1] A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

[2] Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease (7.25%)	Current Discount Rate (8.25%)	1% Increase (9.25%)
Change in Net Pension Liability as of 12/31/2014:	$ 596,807	-	$ (503,906)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

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 Oth

6/1/1996	Temporary Benefit B-2 (06/01/1996 - 07/03/1996)
6/1/1996	6 Year Vesting
1/1/1985	E2 2.5% COLA for future retirees (07/01/1984)
7/1/1984	Benefit B-1
7/1/1983	Benefit F55 (With 25 Years of Service)
7/1/1982	Member Contribution Rate 0.00%
10/14/1969	Covered by Act 88
10/1/1969	Benefit C-1 (Old)
5/1/1946	Fiscal Month - July
5/1/1946	Benefit FAC-5 (5 Year Final Average Compensation)
5/1/1946	10 Year Vesting
5/1/1946	Benefit C (Old)
5/1/1946	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%

02 - Police

7/1/2011	Member Contribution Rate 2.50%
1/1/2005	8 Year Vesting
7/1/1998	Benefit B-4 (80% max)
7/1/1992	Benefit B-3 (80% max)
7/1/1989	Benefit B-2
7/1/1989	Benefit F50 (With 25 Years of Service)
7/1/1982	Member Contribution Rate 0.00%
7/1/1980	Benefit F55 (With 25 Years of Service)
10/14/1969	Covered by Act 88
7/1/1967	Benefit B-1
5/1/1946	Benefit FAC-5 (5 Year Final Average Compensation)
5/1/1946	10 Year Vesting
5/1/1946	Benefit B
5/1/1946	Member Contribution Rate 5.00%
5/1/1946	Fiscal Month - July

10 - NonUnion

12/1/2009	Benefit F50 (With 25 Years of Service)
4/1/2001	Benefit B-4 (80% max)
9/1/1990	Benefit FAC-5 (5 Year Final Average Compensation)
9/1/1990	8 Year Vesting
9/1/1990	Benefit B-1
9/1/1990	Member Contribution Rate 0.00%
1/1/1985	E2 2.5% COLA for future retirees (07/01/1984)
10/14/1969	Covered by Act 88

10 - NonUnion

5/1/1946	Fiscal Month - July

11 - City Mgr

1/1/2003	E2 2.5% COLA for future retirees (07/01/2002)
7/1/2002	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/2002	8 Year Vesting
7/1/2002	Benefit B-4 (80% max)
7/1/2002	Benefit F55 (With 15 Years of Service)
7/1/2002	Member Contribution Rate 0.00%
10/14/1969	Covered by Act 88
5/1/1946	Fiscal Month - July

12 - Non-Union after 7/1/2011

7/1/2011	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/2011	8 Year Vesting
7/1/2011	Day of work defined as 8 Hours a Day for All employees.
7/1/2011	Benefit B-1
7/1/2011	Benefit F55 (With 25 Years of Service)
7/1/2011	Member Contribution Rate 3.00%
10/14/1969	Covered by Act 88
5/1/1946	Fiscal Month - July

20 - Police as of 7/1/2011

7/1/2011	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/2011	8 Year Vesting
7/1/2011	Benefit B-3 (80% max)
7/1/2011	Benefit F50 (With 25 Years of Service)
7/1/2011	Member Contribution Rate 2.50%
10/14/1969	Covered by Act 88
5/1/1946	Fiscal Month - July

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

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	3.00%

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