



WATKINS ROSS

Retirement Plan Consultants, Actuaries and Administrators

February 28, 2018

PERSONAL & CONFIDENTIAL

Ms. Jennifer Rosser
Shiawassee County Road Commission
701 W. Corunna
Corunna, MI 48817

RE: Shiawassee County Road Commission Retiree Health Care Plan

Dear Jennifer:

Enclosed is a *revised* copy of your OPEB accounting report for the fiscal year ending December 31, 2017. This information is intended to assist you in complying with Governmental Accounting Standards Board Statement (GASB) No. 74 Financial Reporting for Postemployment Benefit Plans Other than Pension Plans

While GASB No. 74 is intended to satisfy *plan* accounting requirements and is effective for your 2017 plan year, GASB No. 75 is required to meet *employer* accounting standards but is not effective for your plan until December 31, 2018. Hence, GASB No. 45 accounting may still be used for 2017 employer accounting. Accordingly, Statement No. 45 information has been included in this report as well.

However, if you prefer to adopt GASB No. 75 one year early, we have provided the information necessary for complying with that Standard in 2017. Either way, once December 31, 2018 asset values are known, we will need to collect that information from you to determine the Net OPEB expense for 2018 – which will likely **not** be similar to the amount shown under GASB No. 75 for 2017 due to the immediate recognition of plan changes.

Since GASB 74 is new this year, please discuss these results with your accountants and let us know if further discussion or explanation is desired.

I may be reached at (616) 742-9244.

Sincerely,

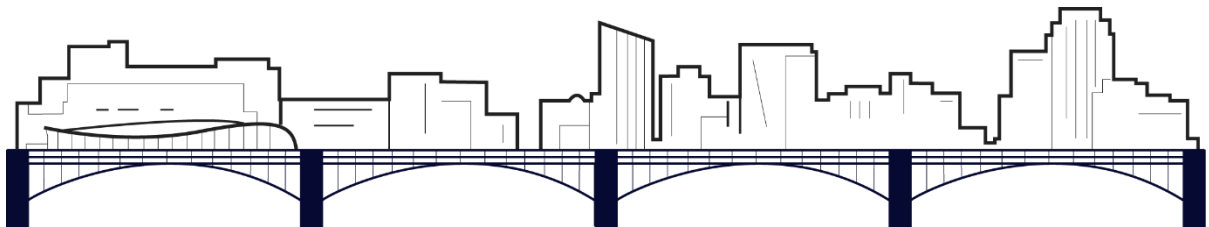
Christian R. Veenstra, MAAA, EA
President / Enrolled Actuary

Enclosure

Shiawassee County Road Commission Retiree Health Care Plan

Revised Accounting Report

for the Period Ending December 31, 2017
under GASB Statement 74 and GASB 45 or 75



Report presented by:



February 2018

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INTRODUCTION AND CERTIFICATION

The schedules included in this report have been prepared in order to provide the information necessary to comply with Governmental Accounting Standards Board (GASB) Statement Nos. 74 and 75. This information may, at the discretion of management of the plan sponsor and its auditor, be used for the preparation of its financial statements. The calculations herein have been made based on our understanding of GASB 74 and 75, and may be inappropriate for other purposes.

The calculations summarized in this report involve actuarial calculations that require assumptions about future events. We believe that the assumptions used in the report are within the range of possible assumptions that are reasonable and appropriate for the purposes for which they have been used. However, other assumptions are also reasonable and appropriate and their use would produce different results.

This report contains additional information and details related to plan provisions and recommended contribution calculations.

This report was prepared on the basis of participant data and asset values as reported to us by the plan sponsor. Watkins Ross relied upon the data as submitted, and has no reason to believe that any information, which would have a material effect on the results of this valuation, was not considered in the preparation of the report.

The actuary certifying this report represents herself as meeting the Qualification Standards of the American Academy of Actuaries to render actuarial opinions contained in the report.

Prepared and Certified by:



Christian R. Veenstra, MAAA
Enrolled Actuary #17-05668

PLAN DESCRIPTION

Summary of Significant Accounting Policies

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expenses, information about the fiduciary net position of the Shiawassee County Road Commission Employee OPEB Plan and additions to/deductions from the Road Commission's fiduciary net position have been determined on the same basis as they are reported by the Shiawassee County Road Commission. For this purposes, benefits payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Plan Description

Shiawassee County Road Commission Retiree Health Care Plan is a single employer plan established and administered by **Shiawassee County Road Commission** and can be amended at its discretion.

Benefits Provided

A summary of plan provisions is available on page 11.

Summary of Plan Participants

Retirement Plan membership consisted of the following:

	2016	2017
Inactive plan members receiving benefits	38	39
Active plan members	<u>8</u>	<u>1</u>
Total participants	46	40

Contributions

The Shiawassee County Road Commission OPEB Plan was established and is being funded under the authority of the County Road Commission and under agreements with the unions representing various classes of employees. The plan's funding policy is that the employer will make discretionary contributions in order to maintain a desired funded percentage as determined by and actuarial valuation. There are no long term contracts for contributions to the plan. The plan has no legally required reserves.

ASSUMPTIONS AND METHODS

The Road Commission's OPEB liability was measured as of as of December 31, 2017.

Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of December 31, 2017 and the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.22%
Salary increases	1.00%
Investment rate of return	6.73% (including inflation)
20-year Aa Municipal bond rate	3.15%
Mortality	2017 IRC 1.430(h) Annuitant and Non-annuitant (sex-distinct)

The long-term expected rate of return on retirement plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of retirement plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the retirement plan's target asset allocation as of December 31, 2017 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global equity	57.5%	5.02%
Global fixed income	20.0	2.18
Real assets	12.5	4.23
Diversifying strategies	10.0	6.56

The sum of each target allocation times its long-term expected real rate is 4.51%.
The long-term expected rate of return is 6.73% with inflation.

Discount Rate

The discount rate used to measure the total OPEB liability was **3.26%**. The projection of cash flows used to determine the discount rate assumed that no Road Commission contributions will be made as assets are drawn down to pay retiree benefits. Based on those assumptions, the retirement plan's fiduciary net position was projected to be sufficient to make projected future benefit payments of current plan members only through 2019. For projected benefits that are covered by projected assets, the long-term expected rate was used to discount the projected benefits. From the year that benefit payments were not projected to be covered by the projected assets (the "depletion date"), projected benefits were discounted at a discount rate reflecting a 20-year AA/Aa tax-exempt municipal bond yield. A single equivalent discount rate that yields the same present value of benefits is calculated. This discount rate is used to determine the Total OPEB Liability. As of December 31, 2016 the discount rate used to value OPEB liabilities was 6.73%

NET OPEB LIABILITY – GASB 74 PLAN ACCOUNTING

Changes in the Net OPEB Liability

	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balance at December 31, 2016	\$4,424,058	\$337,342	\$4,086,716
Changes during the Year			
Service Cost	12,782		12,782
Interest	288,055		288,055
Experience (Gains)/Losses	1,220,477		1,220,477
Change in plan terms	(3,489,440)		(3,489,440)
Change in actuarial assumptions	562,416		562,416
Contributions to OPEB trust			
Contributions/benefit paid from general operating funds		313,343	(313,343)
Net Investment Income		43,643	(43,643)
Benefit Payments; Including Refunds of Employee Contributions	(313,343)	(313,343)	
Administrative Expenses			
Other Changes			
Total Changes	(1,719,053)	43,643	(1,762,696)
Balance at December 31, 2017	2,705,005	380,985	2,324,020

Net OPEB Liability – Discount and Trend Rate Sensitivities

The following presents the net OPEB liability (NOL) of the Road Commission, calculated using trend and discount rates 1% higher and lower than base assumptions:

	1% Decrease	Current Rate	1% Increase
<u>Trend</u>			
Total OPEB Liability	2,551,597	2,705,005	2,715,760
Plan Fiduciary Net Position	<u>380,985</u>	<u>380,985</u>	<u>380,985</u>
Net OPEB Liability	2,170,612	2,324,020	2,334,775
<u>Discount</u>			
Total OPEB Liability	2,924,890	2,705,005	2,514,918
Plan Fiduciary Net Position	<u>380,985</u>	<u>380,985</u>	<u>380,985</u>
Net OPEB Liability	2,543,905	2,324,020	2,133,953

OPEB OBLIGATION AND EXPENSE - GASB 45 OPTION

Notes to Employer's Financial Statements

Annual Required Contribution for the Fiscal Year Ending December 31, 2017

1. Service Cost (end of year)	\$ 13,642
2. Unfunded Actuarial Accrued Liability (UAAL)	4,086,716
3. Amortization Factor	7.2908969
4. Amortization of UAAL = (2) / (3)	560,523
5. Annual Required Contribution (ARC) = (1)+(4)	\$ 574,165

Annual Cost for Other Post-Employment Benefits (OPEB)

	Fiscal Year Ending December 31,	
	2016 ¹	2017
1. Annual Required Contribution (ARC)	\$464,479	\$574,165
2. Interest on Net OPEB Obligation	173,449	182,566
3. Adjustment to ARC	<u>(107,732)</u>	<u>(372,070)</u>
4. Annual OPEB Cost = (1) + (2) + (3)	530,196	384,661
5. Contributions Made	(295,311)	(313,343)
6. Increase in Net OPEB Obligation = (4) – (5)	234,885	71,318
7. Net OPEB Asset (Beginning of Year)	2,477,839	2,712,724
8. Net OPEB Asset (End of Year) = (6) + (7)	2,712,724	2,784,042

OPEB EXPENSE - GASB 75 OPTION

Components of Road Commission's OPEB Expense for the Fiscal Year Ending December 31, 2017

Below are the components of the Total OPEB Expense:

	Fiscal Year Ending December 31, 2017
Service Cost	12,782
Interest on Total OPEB Liability	288,055
Experience (Gains)/Losses	1,220,477
Changes of Assumptions	562,416
Changes in plan terms	(3,489,440)
Employee Contributions	
Projected Earnings on OPEB Plan Investments	(22,703)
Investment Earnings (Gains)/Losses	(4,188)
Administrative Expenses	
Other Changes in Fiduciary Net Position	
Total OPEB Expense	(1,432,601)

¹ From Shiawassee County Road Commission 2016 Financial Statement

NET OPEB LIABILITY - GASB 75 OPTION

OPEB Plan Fiduciary Net Position

Detailed information about the OPEB plan's fiduciary net position is available in the separately issued financial report.

Deferred Inflows and Outflows of Resources Related to OPEB Plan

	Deferred Outflows Of Resources	Deferred Inflows Of Resources
Experience (Gains)/Losses	-	-
Changes of Assumptions	-	-
Investment Earnings (Gains)/Losses	-	<u>16,752</u>
Total	\$ -	\$16,752

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEBs will be recognized in OPEB expense as follows:

Year Ended MM DD,	Amount Recognized
2018	\$(4,188)
2019	(4,188)
2020	(4,188)
2021	(4,188)
2022	-
Thereafter	-

Reconciliation of Net OPEB Liability

Net OPEB Liability December 31, 2016	4,086,716
Total OPEB expense	(1,432,601)
Contributions	(313,343)
Deferred outflows of resources	-
Deferred inflows of resources	<u>(16,752)</u>
Net OPEB Liability December 31, 2017	\$2,324,020

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Changes in Net OPEB Liability and Related Ratios

	Fiscal Year Ending December 31,
	<u>2017</u>
Total OPEB Liability	
Service Cost	12,782
Interest	288,055
Changes of Benefit Terms	(3,489,440)
Difference between Expected and Actual Experience	1,220,477
Change of Assumptions	562,416
Benefit Payments (Including Refunds of Employee Contributions)	(313,343)
Net Change in Total OPEB Liability	(1,719,053)
Total OPEB Liability – Beginning	4,424,058
Total OPEB Liability – Ending (a)	2,705,005
Plan Fiduciary Net Position	
Contributions to OPEB trust	-
Contributions/benefit payments made from general operating funds	313,343
Net Investment Income	43,643
Benefit Payments (Including Refunds of Employee Contributions)	(313,343)
Administrative Expenses	
Other	
Net Change in Fiduciary Net Position	43,643
Plan Fiduciary Net Position – Beginning	337,342
Plan Fiduciary Net Position – Ending (b)	380,985
Net OPEB Liability – Ending (a)-(b)	2,324,020
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	14.1%
Employee Payroll	2,179,814
Net OPEB Liability as Percentage of Payroll	106.6%

Schedule of Employer Contributions

	Fiscal Year Ending December 31,	
	<u>2017</u>	<u>2018</u>
Service cost	13,642	2,565
Amortization of unfunded liability	415,962	197,146 ¹
Actuarially Determined Employer Contribution	429,603	199,711
Employer Contribution	313,343	TBD
Contribution Deficiency/(Excess)	116,260	TBD
Employee Payroll	2,179,814	TBD
Contribution as a Percentage of Covered Payroll	19.7%	TBD

¹ Based on 14 year, level percent of pay, amortization of unfunded liability; alternative funding scenarios could be considered

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Assumptions and methods used in Calculation of 2018 Actuarially Determined Contribution

Valuation date December 31, 2017

Actuarial Methods

Actuarial cost method Entry Age Normal (level percent)

Amortization method Level percent, closed

Remaining amortization period 14 years (average future lifetime)

Asset valuation method Market value

Actuarial Assumptions

Discount rate – 3.26%

Rationale – Based on methodology used to determine the discount rate under GASB 74

Salary scale – 1.0%

Rationale – Expected future pay increases for 2018 provided by client

Return on plan assets – 6.73%

Rationale – Based on methodology used to determine the long term rate of return under GASB 74

Mortality rate – 2017 IRC 1.430(h) Annuitant and Non-annuitant (sex-distinct)

Rationale – Reflects contemporary mortality studies and trends

Utilization – Eligible employees will elect coverage at retirement consistent with current active coverage; actual coverage used for non-active; actual coverage used for non-active

Rationale – Based on past employer experience

Turnover rates - Sample rates below

Rationale – Based on past employer experience

Age	Rate
30	4.8%
35	4.5
40	3.8
45	3.2
50	1.5

Retirement rates – Rates as shown below

Rationale – Based on past employer experience

Age	Rate	Age	Rate
55	18%	61-63	24%
56	15	64	27
57	10	65-69	30
58	15	70	100
59-60	20		

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Marital status – 75% of retirees are assumed to be married at retirement with males three years older than females; actual status used for retirees

Rationale – Based on past employer experience

Annual medical costs – see sample rates below

Rationale – actual annual pre-65 age-graded BCBS premiums for 2017; actual annual post-65 supplemental premiums for 2017

Age	Annual Medical Rate per covered person	Age	Annual Medical Rate per covered person
55	\$ 6,586	61	\$ 8,299
56	6,890	62	8,485
57	7,197	63	8,718
58	7,525	64	8,860
59	7,687	65+	3,579 ¹
60	8,015		

Vision costs – \$6.01 per month for single coverage, \$9.16 per month for double coverage

Rationale – Actual 2017 post-65 monthly vision premiums

Monthly HRA and administrative fee – \$1,000 HRA support with \$20.45 administrative fee per retiree

Rationale – Estimated HRA support with actual pre-65 HRA premium

Medical, vision and administration inflation rate – Pre-65: 8.0% in 2018 graded down 0.5% per year to an ultimate rate of 5.0%; Post-65: 5.0% in all years

Rationale – Based on market expectations for increases in the cost of medical care

Implicit Subsidy – Not applicable

Rationale – Actual premiums are age-graded

Impact of Healthcare Reform

40% excise tax on “high cost” group health coverage

When aggregated, premiums are not projected to exceed 2020 thresholds for more than 20 years; The thresholds were indexed by CPI plus 1% in 2021 and CPI only beginning in 2022; The CPI is assumed to be 3% in 2021 and following

Individual or plan sponsor decisions

No change in behavior on account of Healthcare Reform was anticipated

Assumption changes since prior valuation

- Discount rate changed from 6.73% to 3.2%

Data Collection

Date and form of data - All personnel and asset data was prepared by the plan sponsor or a representative and was generally relied upon as being correct and complete without audit by Watkins Ross, except as noted below.

¹ Does not include vision premium; Total Medicare costs limited to \$3,600 per person per year

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Difference between Actual and Expected Experience

Year Ended December 31,	Difference Between Expected and Actual Experience	Recognition Period (Years)	Amount Recognized in Year Ended MM DD,						Deferred Outflow of Resources	Deferred Inflow of Resources
			2017	2018	2019	2020	2021	2022+		
2017	1,220,477	1.0	<u>1,220,477</u>	-	-	-	-	-	-	-
Net Recognized in OPEB Expense			<u>1,220,477</u>	-	-	-	-	-	-	-

Schedule of Changes in Assumptions

Year Ended December 31,	Changes in Assumptions	Recognition Period (Years)	Amount Recognized in Year Ended MM DD,						Deferred Outflow of Resources	Deferred Inflow of Resources
			2017	2018	2019	2020	2021	2022+		
2017	562,416	1.0	<u>562,416</u>	-	-	-	-	-	-	-
Net Recognized in OPEB Expense			<u>562,416</u>	-	-	-	-	-	-	-

Schedule of Differences between Projected and Actual Earnings on OPEB Plan Investments

Year Ended December 31	Difference Between Expected and Actual Earnings on OPEB Assets	Recognition Period (Years)	Amount Recognized in Year Ended MM DD,						Deferred Outflow of Resources	Deferred Inflow of Resources
			2017	2018	2019	2020	2021	2022+		
2017	(20,940)	5.00	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>0</u>	<u>(16,752)</u>	
Net Recognized in OPEB Expense			<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>0</u>	<u>(16,752)</u>	

Total Deferred Outflow/(Inflow) of Resources

	Amount Recognized in Year Ended MM DD,				
	2018	2019	2020	2021	2022+
Total Deferred Outflow/(Inflow) of Resources	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	<u>(4,188)</u>	-

SUMMARY OF PLAN PROVISIONS

Plan name - Shiawassee County Road Commission Retiree Health Care Plan

Eligibility: Hired prior to 12/31/1998; minimum of Age 60 with 10 years of service for retiree benefits; minimum of Age 55 with 25 years of service required for retiree and spouse benefits

Employer benefits: Payment of medical and vision premiums for the retiree's lifetime; post-65 medical benefits are supplemental to Medicare and limited to \$300 per month per person; Pre-65 coverage is subsidized through a Health Reimbursement Arrangement

Spouse coverage

Retirement between
January 1, 1975 and December 31, 1991 No benefit¹

Retirement between
January 1, 1992 and December 31, 1998 Payment of medical and vision premiums for the spouse's lifetime

Retirement after December 31, 1998 Payment of medical and vision premiums for the spouse's lifetime for retirees with 25 or more years of service at retirement

Changes reflected in 2017 valuation One active employee granted grandfather status as of December 31, 2017; Else, no current active employees will receive retiree medical coverage through this arrangement; Medicare eligible costs limited to \$300 per month per person

Retiree contribution None

Changes since prior valuation One active employee granted grandfather status as of December 31, 2017; Else, no current active employees will receive retiree medical coverage through this arrangement

¹ Two spouses have paid coverage by special arrangement

GLOSSARY

A number of special terms and concepts are used in connection with OPEB plans and the OPEB accounting report. The following list reviews a number of these terms and provides a brief discussion of their meaning.

Accrued Benefit - Each participant has an accrued benefit under the plan. This is the amount of monthly benefit already earned. It is based on past employment with the Employer and is payable at normal retirement.

Actuarial Cost Method - This is a mathematical formula which is used to allocate the present value of projected benefits to past and future plan years.

Amortization – The difference between actual and expected investment returns, the difference between actual and expected experience, and the impact of any plan or assumption changes will be amortized and paid over future years.

Depletion Date (Cross-over Point) – The projected date (if any) where plan assets, including future contributions, are no longer sufficient to pay Projected Benefit Payments to current members.

Long-term expected rate of return – The rate of return based on the nature and mix of current and expected plan investments and over the time period from when an employee is hired to when all benefits to the employee have been paid.

Market Value of Assets – The market value of all assets in the fund including any accrued contribution for the previous plan year, which was not paid by the end of the year.

Measurement Date – The date the Total OPEB Liability, Fiduciary Net Position, and Net OPEB Liability are determined. For GASB 67, the measurement date is the plan's current fiscal year end.

Net OPEB Liability (NOL) – The Total OPEB Liability less the Plan Fiduciary Net Position.

Plan Fiduciary Net Position – The market value of plan assets as of the measurement date.

OPEB Expense (OE) – The change in the Net OPEB Liability (NOL) recognized in the current measurement period. Changes to the NOL not fully recognized in a given year's OPEB expense will be maintained as deferred inflows and deferred outflows. These will be recognized incrementally in the OPEB expense over time.

Present Value - The present value of a future payment or a series of payments is the amount of each payment, discounted to recognize the time value of money, and further reduced for the probability that the payment might not be made because of death, disability or termination of employment.

Present Value of Accumulated Benefits - The discounted value of all monthly benefit payments due in the future, based on current accrued benefits.

GLOSSARY

Present Value of Vested Accumulated Benefits - The discounted value of all monthly benefit payments due in the future, based on current vested benefits.

Projected Benefit Obligation - The value of benefits earned to the measurement date, but based on anticipated salary levels at retirement, computed in accordance with Generally Accepted Accounting Principles (GAAP) accounting rules.

Projected Benefit Payments – All benefits projected to be payable to current active and inactive participants as a result of their past service and their expected future service.

Real Rate of Return – The rate of return on an investment after the adjustment to eliminate inflation.

Service Cost - The value of benefits earned during the current year computed in accordance with GAAP accounting rules.

Single Equivalent Discount Rate – The single rate that gives the same total present value as discounting the Projected Benefit Payments with the long-term expected rate of return until the Depletion Date and discounting any remaining Projected Benefit Payments with the yield on a 20-year AA/Aa tax-exempt municipal bond index.

Total OPEB Liability (TOL) – The actuarial present value of the accrued benefit determined under the Entry Age actuarial cost method calculated using the blended Single Equivalent Discount Rate.