Kent County Retiree Health Care Plan

Actuarial Valuation Report December 31, 2020



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May 14, 2021

Mr. Jeff Dood Fiscal Services Director Kent County Retiree Health Care Plan 300 Monroe Avenue, N.W. Grand Rapids, Michigan 49503-2222

Dear Mr. Dood:

Submitted in this report are the results of an Actuarial Valuation of the assets and benefit values associated with the employer financed retiree health benefits provided by Kent County. The date of the valuation was December 31, 2020.

This report was prepared at the request of the Board and is intended for use by the Retiree Health Care Plan and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Plan's funding progress and to determine the employer contribution rate for the fiscal year ending December 31, 2022. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different. This report does not satisfy the disclosure requirements of GASB Statements No. 74 and No. 75, which are issued in a separate report.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section E of this report. This report includes risk metrics on pages A-7 through A-9 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through December 31, 2020. The valuation was based upon information furnished by the County concerning Retiree Health Care Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the County.

This report was prepared using assumptions adopted by the Board. The assumptions are established by the Board after consulting with the actuary. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. The actuarial methods and assumptions used in the actuarial valuation are summarized in Section E of this report.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Kent County Retiree Health Care plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

James D. Anderson, Derek Henning, and Abra D. Hill are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,

Jaroes D. Anderson, FSA, EA, FCA, MAAA

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Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution (ADC) for the fiscal year ending December 31, 2022 is \$3,416,926 or 3.04% of projected payroll. Actual claims and premiums paid on behalf of retirees from outside of the plan assets may be treated as employer contributions in relation to the ADC. The expected employer portion of the claims and premium amounts paid is estimated to be \$3,707,703 for the fiscal year ending December 31, 2022. This amount reflects the retiree only premium rates and the implicit subsidy for retirees and covered spouses. The expected employer portion is comprised of \$2,051,877 in County benefits to retirees and \$1,655,826 in retiree health care costs in excess of the premiums charged.

If the employer portion of premiums for existing retirees is paid from existing plan assets, the County can still treat the associated implicit subsidy as contributions toward the ADC. Therefore, if the actual premiums and flat dollar subsidies paid from plan assets turn out to be equal to the estimate of \$2,051,877 and the County contributes \$1,761,100 (the difference between the total ADC of \$3,416,926 and \$1,655,826) to the trust, then the ADC will be met.

Per capita costs and illustrative rates were developed from the premiums, claims and enrollment data provided to us. The process used to determine these per capita costs and the results of these calculations are provided in Section B.

Additional OPEB Reporting Requirements

Please note that beginning with the fiscal year ending December 31, 2017, GASB Statement No. 43 was replaced by GASB Statement No. 74. Also, beginning with the fiscal year ending December 31, 2018, GASB Statement No. 45 was replaced by GASB Statement No. 75. The report dated April 30, 2021 complies with the actuarial requirements of GASB Statement No. 74 and Statement No. 75 for the fiscal year ending December 31, 2020.

Liabilities and Assets

The present value of all benefits expected to be paid to current plan members as of December 31, 2020 is \$75,558,611. The actuarial accrued liability, which is the portion of the \$75,558,611 attributable to service accrued by plan members as of December 31, 2020, is \$64,164,023. As of December 31, 2020, there is \$38,450,952 in valuation assets available to offset the liabilities of the plan.

The funded status of the plan, which is the ratio of plan assets to actuarial accrued liability, as of December 31, 2020 is 59.9%. This is an increase from 53.7% as of December 31, 2019.

At the February 20, 2019 Board Meeting, the VEBA board adopted a 4-year asset smoothing method. Please see page D-4 for the development of the funding value of assets.



Executive Summary

Assumption Changes

The health care trend assumption was updated in accordance with the Uniform Assumption reporting requirements for the Fiscal Year 2020. The non-Medicare initial trend rate was reduced from 8.5% to 8.25%. The Medicare initial trend rate was reduced from 7.0% to 6.5%. The health care trend assumption is described on page B-3.

The actuarial assumptions reflected in the December 31, 2020 valuation are in accordance with the Uniform Assumption reporting requirements for Fiscal Year 2020 under Public Act 202.

Benefit Change

There were no benefit changes reflected in the December 31, 2020 valuation.



SECTION A

VALUATION RESULTS

Development of the Actuarially Determined Contribution for Other Postemployment Benefits Fiscal Year Ending December 31, 2022

| Contributions for | Development of the Actuarially Determined Contribution for January 1, 2022 - December 31, 2022 |
|--|--|
| Normal Cost | |
| Normal Retirement | \$ 1,236,388 |
| Early Retirement | 191,078 |
| Death-in-Service | 44,960 |
| Disability | 67,439 |
| Future Refund of Member Contributions | 0 |
| Total Normal Cost | \$ 1,539,865 |
| Annual Active Member Contribution | 0 |
| Employer Normal Cost | \$ 1,539,865 |
| Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 20 years) | \$ 1,877,061 |
| Actuarially Determined Contribution (ADC) | \$ 3,416,926 |
| Projected Payroll for the Fiscal Year | |
| Ending December 31, 2022 | \$112,398,878 |
| ADC as a Percentage of Projected Payroll | 3.04% |
| ADC Per Active Participant (1,586 Actives) | \$ 2,154 |

The unfunded actuarial accrued liabilities were amortized as a level percent of active member payroll over a period of 20 years.



Determination of Unfunded Actuarial Accrued Liability as of December 31, 2020

| А. Р | resent Value of Future Benefits 1. Retirees and Beneficiaries | \$30,910,275 |
|------|--|-----------------------------------|
| | 2. Vested Terminated Members3. Active Members | 0 |
| | Total Present Value of Future Benefits | <u>44,648,336</u> \$75,558,611 |
| | Total Flesent value of Future Benefits | \$75,558,011 |
| В. | Present Value of Future Employer Normal Costs | 11,394,588 |
| C. | Present Value of Future Contributions from Current Active Members | 0 |
| D. | Actuarial Accrued Liability (ABC.) | 64,164,023 |
| E. | Funding Value of Assets | 38,450,952 |
| F. | Unfunded Actuarial Accrued Liability (DE.) | \$25,713,071 |
| G. | Funded Status (E./D.) | 59.9% |

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



Direct and Indirect Components of Actuarial Accrued Liability as of December 31, 2020 and Normal Cost Projected to Fiscal Year Ending December 31, 2022

| | Actuarial Accrued Liability | | | Normal Cost | | |
|------------------|-----------------------------|---------------|---------------|--------------|------------|--------------|
| Group | Indirect | Direct | Total | Indirect | Direct | Total |
| Active | \$ 19,831,350 | \$ 13,422,398 | \$ 33,253,748 | \$ 1,000,350 | \$ 539,515 | \$ 1,539,865 |
| Pre-65 Retirees | 8,830,076 | 3,770,735 | 12,600,811 | | | |
| Post-65 Retirees | | 18,309,464 | 18,309,464 | | | |
| Total | \$ 28,661,426 | \$ 35,502,597 | \$ 64,164,023 | \$ 1,000,350 | \$ 539,515 | \$ 1,539,865 |

For this purpose, "direct" costs represent the plan provided employer subsidy (e.g., \$400/mo). "Indirect" costs represent additional employer costs due to the difference between the total cost of retiree benefits and the portion covered by the sum of "direct" costs and retiree contributions.



Comments

COMMENT A: One of the key assumptions used in any valuation of the cost of postemployment benefits is the long-term rate of investment return on plan assets. We have calculated the actuarial accrued liability and the resulting Actuarially Determined Contribution (ADC) using an assumed investment return of 6.75%, as adopted by the Board.

COMMENT B: Due to the Board's use of a four-year smoothed market asset valuation method, higher than expected market returns were only 25% recognized, and combined with the scheduled phase-in of the prior three years unrecognized investment income. As a result, the market value of assets returned 14.4% in 2020 while the return on valuation assets was 8.7%.

Given annual investment returns of 6.75% going forward, net investment gains are scheduled for the next three years (see page D-4 for further details). This will exert downward pressure on computed County contribution rates and upward pressure on the funded ratio.

Selected comparative Retiree Health Care Plan metrics follow:

| Valuation Date | 12/31/2020 | 12/31/2019 |
|-----------------------------|----------------|----------------|
| Funded Status = AAL - FVA | \$25.7 million | \$27.5 million |
| Funded Percentage = FVA/AAL | 59.9% | 53.7% |
| Funded Percentage = MVA/AAL | 64.4% | 55.0% |
| Employer Contribution | 3.04% | 3.19% |
| Employer Contribution – MVA | 2.85% | 3.14% |
| FVA/MVA | 93.1% | 97.6% |

AAL = Actuarial Accrued Liability, FVA = Funding Value of Assets, MVA = Market Value of Assets

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

COMMENT D: The contribution rates shown include amortization of the unfunded actuarial accrued liability over 20 years.

COMMENT E: Retirees who are currently waiving coverage through the County are assumed to continue waiving coverage indefinitely.

COMMENT F: If the employer portion of premiums for existing retirees is paid from existing plan assets, the County can still treat the associated implicit subsidy as contributions toward the ADC. Therefore, if the actual premiums and flat dollar subsidies paid from plan assets turn out to be \$2,051,877 and the County contributes \$1,761,100 (the difference between \$3,416,926 and \$1,655,826) to the trust, then the ADC will be met.



Comments (Concluded)

COMMENT G: Currently, no trend is being applied to the monthly flat dollar subsidy, as it is not expected to be increased in the future. If the amount of the flat dollar subsidy is expected to increase, then application of a trend may be appropriate.

COMMENT H: Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. Section F of this report satisfies the Public Act 202 uniform assumptions reporting for Fiscal Year 2020.



Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected System Contributions and Funded Status

Given the Plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the Plan earning 6.75% on the funding value of assets), it is expected that:

- (1) The employer normal cost as a percentage of pay will be sufficient to finance benefits accruing each year;
- (2) The Unfunded Actuarial Accrued Liabilities (UAAL) will be fully amortized after 20 years (December 31, 2041); and
- (3) The funded status of the plan will increase gradually towards a 100% funded ratio.

The above statements assume that the full Actuarially Determined Employer Contribution (ADC) is contributed each year.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the funding value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of System assets to cover the estimated cost of settling the System's benefit obligations, for example: transferring the liability to an unrelated third party in a market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the System's amortization policy (funding policy), affects the timing and amounts of future contributions. The amounts of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon the actuarial assumptions. Even if the funded status measurement in this report was 100%, it would not be synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).



Risks Associated with Measuring the Accrued Liability and **Actuarially Determined Contribution**

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

- 1. **Investment Risk** actual investment returns may differ from the expected returns;
- 2. Asset/Liability Mismatch Risk changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
- 3. Contribution Risk actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
- 4. Salary and Payroll Risk actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
- 5. Longevity Risk members may live longer or shorter than expected and receive benefits for a period of time other than assumed; and
- 6. Other Demographic Risks members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.



Plan Maturity Measures

Risks facing a retiree health plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

| | Health Care Plan | |
|--|------------------|-------|
| | 2020 | 2019 |
| Ratio of the market value of assets to total payroll | 0.39 | 0.34 |
| Ratio of actuarial accrued liability to payroll | 0.61 | 0.61 |
| Ratio of actives to retirees and beneficiaries | 2.20 | 2.19 |
| Ratio of net cash flow to market value of assets | 8.7% | 4.5% |
| Duration of the actuarial accrued liability | 12.42 | 12.56 |

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.



Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, a duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.





RETIREE PREMIUM RATE DEVELOPMENT

Retiree Premium Rate Development

For the self-insured plans, initial premium rates were developed for pre-65 retirees only. The rates were calculated by using actual claims and exposure data for the period of January 2018 through December 2020, plus the load for administration fees. The self-insured medical and prescription drug data were provided by the County. Prescription drug claims and the medical claims were analyzed separately since they exhibit different trends and claim payment patterns.

For the fully-insured plans, initial premium rates were developed for the two classes of retirees (pre-65 and post-65). The January 1, 2021 fully-insured rates provided by Kent County were utilized to determine the appropriate per capita costs. The pre-65 fully-insured medical premiums are blended rates based on the combined experience of active and pre-65 retired members; therefore, there is an implicit employer subsidy for the non-Medicare eligible retirees since the average costs of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees. The true per capita cost for the pre-65 retirees is developed by adjusting the demographic differences between the active employees and retirees to reflect this implicit rate subsidy for the retirees. For the post-65 retirees, the fully-insured premium rate is used as the basis of the initial per capita cost without adjustments since the rate reflects the demographics of the post-65 retiree group.

The medical and prescription drug claims experience was better than expected leading to lower than expected self-insured medical per capita costs. Fully-insured drug premiums decreased since the last valuation. The aggregate effect of these elements has led to lower than expected increases in the per capita rates used in the valuation.

The per capita costs shown on the following page are the weighted average costs of the fully-insured and self-insured premiums based on the actual enrollment by plan as of the valuation date. The Medicare Supplemental Plan F (Transamerica) and Part D Prescription Drug (Humana) plans are only available to retirees eligible for Medicare as of January 1, 2020. Therefore, the post-65 per capita claims costs are different for current retirees versus future retirees.



Retiree Premium Rate Development

Age graded and sex distinct premiums are utilized in this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific costs more accurately reflect the health care utilization and cost at that age.

The tables below show the resulting medical and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below reflect the use of age grading.

| For Those Not Eligible for Medicare | | | | |
|-------------------------------------|----------|----------|--|--|
| Age Male Female | | | | |
| 45 | \$558.24 | \$770.45 | | |
| 50 | 726.90 | 895.46 | | |
| 55 | 956.51 | 1,044.37 | | |
| 60 | 1,235.39 | 1,216.43 | | |

| For Those Eligible for Medicare (Current Retirees) | | | | |
|--|----------|----------|--|--|
| Age Male Female | | | | |
| 65 | \$256.57 | \$242.00 | | |
| 70 | 279.50 | 270.46 | | |
| 75 | 300.19 | 292.92 | | |

| For Those Eligible for Medicare (Future Retirees) | | | | |
|--|----------|----------|--|--|
| Age Male Female | | | | |
| 65 | \$151.27 | \$142.68 | | |
| 70 | 164.79 | 159.46 | | |
| 75 | 176.99 | 172.70 | | |



Retiree Premium Rate Development

Health Care Trend Assumption

The health care cost trend rate is the rate of change in per capita health care claims over time as a result of factors such as medical inflation, utilization of health care services, plan design, and technological improvements. It is a crucial economic assumption that is required for measuring retiree health care benefit obligations.

Retiree health care valuations use a health care cost trend assumption (trend vector) that changes over the years. The trend vector used in this valuation begins with a near-term trend assumption and declines over a time to an ultimate trend rate. The near-term rates reflect the increases in the current cost of health care goods and services. The process of trending down to a lower ultimate trend relies on the theory that premiums will moderate over the long term; otherwise, the health care sector would eventually consume the entire GDP. The health care trend assumption was updated in accordance with the Michigan Public Act 202 Uniform Assumption reporting requirements for the Fiscal Year 2020.

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

| _ | Medical and Drug Trend Rates | | |
|--------------|------------------------------|----------|--|
| Year | Non-Medicare | Medicare | |
| 2021 | 8.25% | 6.50% | |
| 2022 | 8.00 | 6.25 | |
| 2023 | 7.75 | 6.00 | |
| 2024 | 7.50 | 5.75 | |
| 2025 | 7.25 | 5.50 | |
| 2026 | 7.00 | 5.25 | |
| 2027 | 6.75 | 5.00 | |
| 2028 | 6.50 | 4.75 | |
| 2029 | 6.25 | 4.50 | |
| 2030 | 6.00 | 4.50 | |
| 2031 | 5.75 | 4.50 | |
| 2032 | 5.50 | 4.50 | |
| 2033 | 5.25 | 4.50 | |
| 2034 | 5.00 | 4.50 | |
| 2035 | 4.75 | 4.50 | |
| 2036 & Later | 4.50 | 4.50 | |

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.

James E. Branschke
ames E. Pranschke, FSA, FCA, MAAA

5/14/2021 Date





SUMMARY OF BENEFIT PROVISIONS

Summary of Benefit Provisions as of December 31, 2020

Plan Participants

Members of Kent County with continued employee/retiree participation in employer sponsored health care plans are eligible to receive retiree health care benefits.

Health Care Benefit Provided

| | | Monthly Flat |
|---------|------------------------------|-----------------------|
| Pension | | Dollar Subsidy |
| Group | OPEB Group | Amount |
| 35 | POLC – Captains/ Lieutenants | \$400 |
| 11 | APAA – Prosecuting Attorneys | \$400 |
| 20 | UAW | \$400 |
| 22 | TPOAM | \$400 |
| 55 | Teamsters - Parks | \$400 |
| 50 | Teamsters - PHN | \$400 |
| 31 | FOP | \$400 |
| 30 | KCDSA | \$400 |
| 60 | MPP | \$400 |
| 65 | Judges | \$400 |
| 70 | Elected Officials | \$400 |
| 75 | Commissioners | \$400 |
| 60 | Non- Exempt MPP | \$400 |
| 17 | Circuit Court Referees | \$400 |
| | | |

Subsidy prorated for service less than 25 years.

Pension Groups 11, 20, 35, 50, 60, 65, 70, and 75 – Employees hired on or after January 1, 2016 (January 1, 2015 for Pension Groups 17, 31 and 55), upon their retirement, will be in a separate group for retiree health premium rating purposes.

Pension Groups 22 and 30 – Employees hired on or after July 1, 2016, upon their retirement, will be in a separate group for retiree health premium rating purposes.

Normal Retirement Eligibility

Age 60 with 5 years of service or 25 years of service regardless of age. Military service may be purchased.

For members hired on or after January 1, 2011, age 62 with 5 years of service or age 60 (age 55 for Captains/Lieutenants) with 25 years of service, for the following groups: MPP, Judges, Elected Officials, Commissioners, UAW, TPOAM, and Prosecuting Attorneys.

For members hired on or after January 1, 2012, age 62 with 5 years of service or age 60 with 25 years of service, for the following groups: Teamsters-Parks, Teamsters-PHN, and Circuit Court Referees.

For KCDSA members hired on or after January 1, 2013, age 60 with 5 years of service or age 50 with 25 years of service.

For FOP members hired on or after January 1, 2015, age 60 with 5 years of service or age 50 with 25 years of service.



Summary of Benefit Provisions as of December 31, 2020

Early Retirement Eligibility

Members who retire at age 55 or older with 15 or more years of service are eligible for the flat dollar subsidy above, pro-rated for service less than 25 years.

Deferred Retirement Eligibility

Retirees who terminate employment prior to eligibility for early or normal retirement are not eligible for retiree health care benefits.

Duty Disability Eligibility

Employees who retire under a duty disability retirement are immediately eligible for full subsidy. The County pays a pro-rated amount of the flat dollar subsidy on page C-1 for groups 35, 60, 65, 70 and 75.

Non-Duty Disability Eligibility

Members who become disabled with ten or more years of service will receive the flat dollar on page C-1, pro-rated for service less than 25 years for groups 30, 31 and 35. All other employees are covered by the Long-Term Disability Plan.

Death-in-Service Eligibility

Survivors of employees who become deceased while employed are eligible to purchase retiree health care benefits at full rates.

Benefit for Spouses of Retired Members

Spouses of retired employees are eligible to purchase health care through the County. Surviving spouses of deceased retirees are also eligible to purchase health care through the County if receiving a pension benefit from the Kent County Retirement Plan.

Non-Medicare and Medicare-Eligible Provisions

Retiree and spouse are required to enroll in Medicare once eligible. Retiree and spouse pay the Medicare Part B premiums.

Vision and Dental Insurance Eligibility

The County offers fully-insured retiree vision and dental plans to retirees. Retirees pay full cost of premiums.

Life Insurance Eligibility

The County does not offer life insurance coverage for retirees or their dependents.

This is a brief summary of the Kent County provisions. In the event that any description contained herein differs from the actual eligibility or benefit, the appropriate employee contract or governing document will prevail.



Designated MPP Parks Unit Members Summary of Benefit Provisions as of December 31, 2020

Plan Participants

Designated Members of Kent County MPP Parks Bargaining Unit with continued employee/retiree participation in employer sponsored health care plans are eligible to receive retiree health care benefits.

Health Care Benefit Provided

The County pays 80% of the retiree health care premiums for eligible retirees and spouse named at retirement. Dental and Drug coverage ceases at age 65.

Normal Retirement Eligibility

Members are eligible for retiree health care at age 55 with 20 years of service or at age 55 if the sum of age and service is 75 or greater.

Early Retirement Eligibility

Members who retire under early retirement are eligible for a reduced benefit.

Age 55 and service sum to 70-74 Age 55 and service sum to 65-69

Benefit Paid by County

75% of premium 50% of premium

Benefit for Spouses of Retired Members

Spouses of retired employees are eligible to purchase health care through the County.

Non-Medicare and Medicare-Eligible Provisions

Retiree and spouse are required to enroll in Medicare once eligible. Retiree and spouse pay the Medicare Part B premiums.

Dental Eligibility

The County provides 100% paid dental until the age of 65.

Vision Insurance Eligibility

The County offers a fully insured retiree vision plan to retirees. Retirees pay full cost of premiums.

Life Insurance Eligibility

The County does not offer life insurance coverage for retirees or their dependents.

This is a brief summary of the Kent County provisions for the designated MPP Parks Unit. In the event that any description contained herein differs from the actual eliqibility or benefit, the appropriate employee contract or governing document will prevail.





SUMMARY OF VALUATION DATA

Total Active Members as of December 31, 2020 by Attained Age and Years of Service

| | Years of Service to Valuation Date | | | | | | Totals | | |
|-----------------|------------------------------------|-----|-------|-------|-------|-------|---------|-------|----------------------|
| Attained Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30 Plus | No. | Valuation Payroll |
| | | | | | | | | | , |
| 20-24 | 24 | | | | | | | 24 | \$ 1,013,623 |
| 25-29 | 136 | 18 | | | | | | 154 | 8,082,295 |
| 30-34 | 135 | 76 | 13 | 3 | | | | 227 | 13,302,726 |
| 35-39 | 78 | 54 | 51 | 19 | | | | 202 | 12,849,560 |
| 40-44 | 53 | 39 | 42 | 81 | 33 | 1 | | 249 | 17,554,594 |
| 45-49 | 26 | 28 | 21 | 58 | 95 | 15 | | 243 | 18,014,896 |
| 50-54 | 30 | 15 | 24 | 39 | 75 | 30 | 3 | 216 | 15,745,861 |
| 55-59 | 21 | 12 | 25 | 27 | 31 | 10 | 12 | 138 | 9,203,304 |
| 60-64 | 13 | 7 | 7 | 20 | 23 | 14 | 12 | 96 | 6,646,144 |
| 65 & Over | 2 | 4 | 3 | 6 | 9 | 6 | 7 | 37 | 2,512,552 |
| | | | | | | | | | |
| Totals | 518 | 253 | 186 | 253 | 266 | 76 | 34 | 1,586 | \$104,925,555 |

There is 1 MPP member in the above totals.

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

Age: 43.4 years Service: 12.2 years

Annual Pay: \$66,157



Total Retired Members as of December 31, 2020 by Attained Age

| Attained | Number of Re | tirees and Surv | Average Flat | |
|-----------|--------------|-----------------|--------------|--------------------------|
| Age | Male | Female | Total | Dollar Subsidy (Monthly) |
| Under 55 | 22 | 19 | 41 | \$329.69 |
| 55-59 | 28 | 42 | 70 | 314.57 |
| 60-64 | 41 | 83 | 124 | 291.77 |
| 65 & Over | 225 | 260 | 485 | 173.82 |
| Totals | 316 | 404 | 720 | \$216.69 |

The number counts above only include those retirees who receive retiree health care coverage through the Kent County Retiree Health Care Plan. However, some of the retirees included above are paying the full "premium" for health care coverage.



Asset Information

Balance Sheet

| Reported Assets – Market Value | | | | |
|--------------------------------|-------------------|--|--|--|
| | December 31, 2020 | | | |
| Cash & equivalents | \$ 2,023,378 | | | |
| Receivables & accruals | 389,112 | | | |
| Stocks | 24,484,570 | | | |
| Bonds & government securities | 13,849,057 | | | |
| Real Estate | 1,028,691 | | | |
| Other -Accounts Payable | (477,917) | | | |
| Total Current Assets | \$ 41,296,891 | | | |

Revenues and Expenditures

| | 2020 |
|--|--|
| Balance – December 31, 2019 Adjustment | \$ 32,734,859 - |
| Balance – January 1 | \$ 32,734,859 |
| Revenues: Employees' contributions Employer contributions | - \$ 5,429,793 |
| Investment income Total | 5,121,879 \$10,551,672 |
| Expenditures: Benefit payments Refund of member contributions Administrative and investment expenses Total | \$ 1,845,545 - 144,095 \$ 1,989,640 |
| Balance - December 31 Rate of Return | \$41,296,891 14.4% |



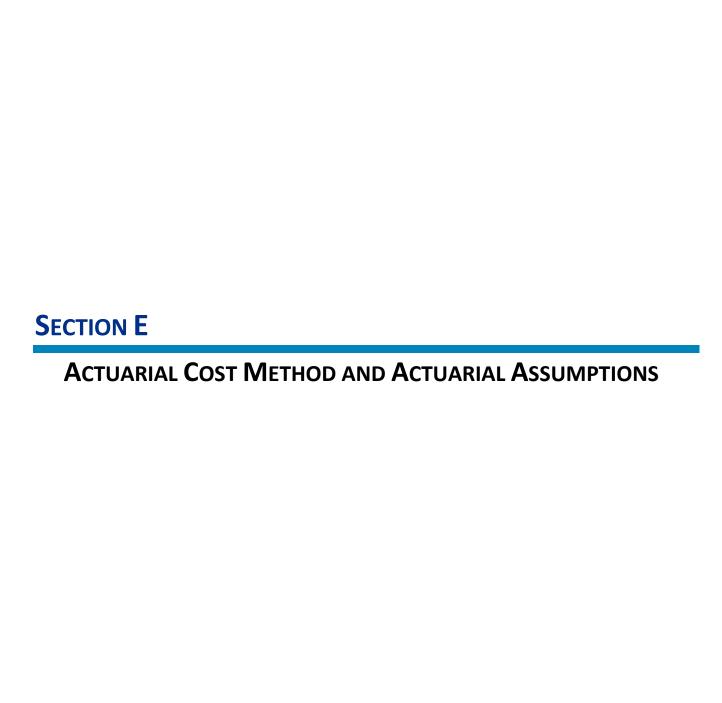
Development of Funding Value of Assets

| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------|---|---|---|---|---|
| \$ 25,315,572 | \$ 28,509,900 | \$ 31,940,824 | | | |
| 25,891,112 | 32,734,859 | 41,296,891 | | | |
| 25,315,572 | 25,891,112 | 32,734,859 | | | |
| 2,217,553 | 1,482,760 | 3,584,248 | | | |
| | | | | | |
| 7.00% | 6.75% | 6.75% | 6.75% | 6.75% | 6.75% |
| (1,642,013) | 5,360,987 | 4,977,784 | | | |
| 1,849,704 | 1,974,461 | 2,276,974 | | | |
| (3,491,717) | 3,386,526 | 2,700,810 | | | |
| | | | | | |
| (872,929) | 846,632 | 675,203 | | | |
| - | (872,929) | 846,632 | \$ 675,203 | | |
| - | - | (872,929) | 846,632 | \$ 675,203 | |
| - | - | - | (872,930) | 846,630 | \$ 675,201 |
| (872,929) | (26,297) | 648,906 | 648,905 | 1,521,833 | 675,201 |
| 28,509,900 | 31,940,824 | 38,450,952 | | | |
| (2,618,788) | 794,035 | 2,845,939 | | | |
| 3.7% | 6.7% | 8.7% | | | |
| (6.2)% | 20.1% | 14.4% | | | |
| 110.1% | 97.6% | 93.1% | | | |
| | \$ 25,315,572 25,891,112 25,315,572 2,217,553 7.00% (1,642,013) 1,849,704 (3,491,717) (872,929) - - (872,929) 28,509,900 (2,618,788) 3.7% (6.2)% | \$ 25,315,572 \$ 28,509,900 25,891,112 32,734,859 25,315,572 25,891,112 2,217,553 1,482,760 7.00% 6.75% (1,642,013) 5,360,987 1,849,704 1,974,461 (3,491,717) 3,386,526 (872,929) 846,632 - (872,929) (872,929) (26,297) 28,509,900 31,940,824 (2,618,788) 794,035 3.7% 6.7% (6.2)% 20.1% | \$ 25,315,572 \$ 28,509,900 \$ 31,940,824 25,891,112 32,734,859 41,296,891 25,315,572 25,891,112 32,734,859 2,217,553 1,482,760 3,584,248 7.00% 6.75% 6.75% (1,642,013) 5,360,987 4,977,784 1,849,704 1,974,461 2,276,974 (3,491,717) 3,386,526 2,700,810 (872,929) 846,632 675,203 6872,929) 7 (26,297) 648,906 28,509,900 31,940,824 38,450,952 (2,618,788) 794,035 2,845,939 3.7% 6.7% 8.7% (6.2)% 20.1% 14.4% | \$ 25,315,572 \$ 28,509,900 \$ 31,940,824 25,891,112 32,734,859 41,296,891 25,315,572 25,891,112 32,734,859 2,217,553 1,482,760 3,584,248 7.00% 6.75% 6.75% 6.75% (1,642,013) 5,360,987 4,977,784 1,849,704 1,974,461 2,276,974 (3,491,717) 3,386,526 2,700,810 (872,929) 846,632 675,203 - (872,929) 846,632 \$ 675,203 - (872,929) 846,632 \$ 675,203 - (872,929) 846,632 \$ 675,203 (872,930) (872,930) 648,906 648,905 28,509,900 31,940,824 38,450,952 (2,618,788) 794,035 2,845,939 3.7% 6.7% 8.7% (6.2)% 20.1% 14.4% | \$ 25,315,572 \$ 28,509,900 \$ 31,940,824 |

^{*} Unaudited amount.

The Funding Value of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. The Funding Value of Assets is **unbiased** with respect to Market Value. At any time it may be either greater or less than Market Value. If actual and assumed rates of investment income are exactly equal for 3 consecutive years, the Funding Value will become equal to Market Value.





Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an individual *entry-age normal cost* method having the following characteristics:

- The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Asset Valuation Method. Valuation assets are the funding value of assets smoothed over 4-years as of the valuation date.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over a closed period of 20 years. The 20-year amortization factor used was 14.6636.



Actuarial Assumptions

The rate of investment return was 6.75% a year, compounded annually net of expenses. The assumed real rate of return (the net return in excess of the wage inflation rate) is 3.25%.

The wage inflation assumption, or base rate of salary increase, used for individual members was 3.5% per year.

The price inflation assumption was 2.5% (not explicit in the valuation).

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

If the number of active members remains constant, then the total active payroll is expected to increase 3.5% annually, the base portion of the individual salary increase assumptions. The payroll growth rate for financing Unfunded Actuarial Accrued Liabilities was assumed to be 3.5% per year.

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

| | Salary Increase Assumptions | | | | |
|--------|-----------------------------|----------------|-----------|--|--|
| | For ar | ı Individual M | ember | | |
| Sample | Merit & | Base | Increase | | |
| Ages | Seniority | (Economic) | Next Year | | |
| 20 | 7.0 % | 3.5 % | 10.5 % | | |
| 25 | 5.8 | 3.5 | 9.3 | | |
| 30 | 3.5 | 3.5 | 7.0 | | |
| 35 | 2.1 | 3.5 | 5.6 | | |
| 40 | 1.4 | 3.5 | 4.9 | | |
| 45 | 1.1 | 3.5 | 4.6 | | |
| 50 | 0.8 | 3.5 | 4.3 | | |
| 55 | 0.5 | 3.5 | 4.0 | | |
| 60 | 0.2 | 3.5 | 3.7 | | |
| 65 | 0.0 | 3.5 | 3.5 | | |



Actuarial Assumptions (Continued)

The mortality table used was the RP-2014 Mortality Tables with 2-dimensional, fully generational improvements projected with the MP-2018 Mortality Improvement Scales. The projection tables were first used for the December 31, 2018 valuation.

| Attained Age in | Percent Dying Next Year | | | e Life cy (Years) |
|--------------------|--------------------------|---------|-------|----------------------|
| 2020* | Men | Women | Men | Women |
| 50 | 0.4110% | 0.2744% | 34.29 | 36.92 |
| 55 | 0.5814% | 0.3884% | 29.57 | 32.00 |
| 60 | 0.8243% | 0.5880% | 25.04 | 27.26 |
| 65 | 1.1883% | 0.8593% | 20.74 | 22.74 |
| 70 | 1.7438% | 1.3027% | 16.70 | 18.44 |
| 75 | 2.7492% | 2.1266% | 12.96 | 14.42 |
| 80 | 4.6152% | 3.6476% | 9.61 | 10.80 |

Mortality and life expectancy for a person retired in 2020. Retirements in future years will reflect improvements in life expectancy.

This assumption is used to measure the probabilities of each benefit payment being made after retirement. A margin for future mortality improvements is included in these tables.



Actuarial Assumptions (Continued)

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

| Service Based | | | | | |
|---------------|--------------------|--|--|--|--|
| Years of | Active Members | | | | |
| Service | Retiring Next Year | | | | |
| 25 | 25% | | | | |
| 26 | 20 | | | | |
| 27 | 15 | | | | |
| 28 | 15 | | | | |
| 29 | 20 | | | | |
| 30 | 20 | | | | |
| 31 | 20 | | | | |
| 32 | 30 | | | | |
| 33 | 40 | | | | |
| 34 | 40 | | | | |
| 35 | 60 | | | | |
| 36 | 60 | | | | |
| 37 | 60 | | | | |
| 38 | 60 | | | | |
| 39 | 60 | | | | |
| 40 | 100 | | | | |

| Age and Service Based | | | | | | |
|-----------------------|-----------------------------------|-----------|-------|--|--|--|
| | Active Members Retiring Next Year | | | | | |
| | No | rmal | | | | |
| Retirement | Eligible | Eligible | | | | |
| Ages | At Age 60 | At Age 55 | Early | | | |
| 55 | | 25% | 5% | | | |
| 56 | | 20 | 5 | | | |
| 57 | | 15 | 5 | | | |
| 58 | | 15 | 5 | | | |
| 59 | | 20 | 5 | | | |
| 60 | 20% | 20 | 5 | | | |
| 61 | 20 | 20 | 5 | | | |
| 62 | 20 | 30 | | | | |
| 63 | 20 | 40 | | | | |
| 64 | 20 | 40 | | | | |
| 65 | 20 | 60 | | | | |
| 66-69 | 30 | 60 | | | | |
| 70-74 | 35 | 100 | | | | |
| 75 | 100 | 100 | | | | |

For members Captains and Lieutenants, KCDSA and FOP members hired after a certain date who are subject to the 55 & 25 or 50 & 25 retirement eligibility conditions, the "age and service" retirement rates for these groups be set to the "service based" retirement rates shown above.



Actuarial Assumptions (Concluded)

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire). This assumption measures the probabilities of members remaining in employment.

| Sample | Years of | % of Active Members |
|--------|----------|-----------------------------|
| Ages | Service | Separating Within Next Year |
| ALL | 0 | 18.00 % |
| | 1 | 13.00 |
| | 2 | 10.00 |
| | 3 | 8.00 |
| | 4 | 7.00 |
| 25 | 5 & Over | 5.40 |
| 30 | | 5.40 |
| 35 | | 4.86 |
| 40 | | 3.96 |
| 45 | | 3.33 |
| 50 | | 3.00 |
| 55 | | 3.00 |
| 60 | | 3.00 |

Rates of disability among active members.

| Sample | % of Active Members Becoming | | | | | |
|--------|----------------------------------|--|--|--|--|--|
| Ages | Disabled Within Next Year | | | | | |
| 20 | 0.02 % | | | | | |
| 25 | 0.03 | | | | | |
| 30 | 0.04 | | | | | |
| 35 | 0.07 | | | | | |
| 40 | 0.10 | | | | | |
| 45 | 0.14 | | | | | |
| 50 | 0.23 | | | | | |
| 55 | 0.38 | | | | | |
| 60 | 0.55 | | | | | |

Twenty-five percent of disabilities were assumed to be duty related.



Miscellaneous and Technical Assumptions

Decrement Operation: Disability and mortality decrements do not operate during the first

5 years of service. Disability and withdrawal do not operate during

retirement eligibility.

Decrement Timing: Decrements of all types are assumed to occur mid-year.

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the decrement

is assumed to occur.

Incidence of Contributions: Contributions are assumed to be received continuously throughout

the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are

made.

Marriage Assumption: Male spouses are assumed to be three years older than female

spouses for active member valuation purposes.

Pay Increase Timing: Beginning of (Fiscal) year. This is equivalent to assuming that

reported pays represent amounts paid to members during the year

ended on the valuation date.

Medicare Coverage: Assumed to be available for all covered employees on attainment

of age 65. Disabled retirees were assumed to be eligible for

Medicare coverage at age 65.

Election Percentage: It was assumed that 37% of female retirees and 52% of male

retirees would choose not to receive retiree health care benefits through the County. Of those assumed to elect coverage, 33% of males and 21% of females were assumed to elect two-person coverage, if eligible. For those that elect two-person coverage, it was assumed that coverage would continue to 10% of the surviving

spouses upon death of the retiree, if eligible.

Employer Cost: The employer's portion of the per capita cost is assumed to be the

implicit subsidy and the applicable flat dollar subsidy. All flat dollar

subsidies are assumed to remain level.



SECTION **F**

MICHIGAN PUBLIC ACT 202

State Reporting Assumptions as of December 31, 2020

The Protecting Local Government Retirement and Benefits Act, Public Act 202 of 2017 (PA 202), was put into law effective December 20, 2017. One outcome of the law is the requirement for the local unit of government to provide select reporting disclosures to the State. Section 5(1) of the Act provides the State treasurer with the authority to annually establish uniform actuarial assumptions for purposes of developing the requisite disclosures. Below you will find information which may be used to assist the local unit of government with required reporting.

Uniform Assumptions, as applicable to the measurement and the required disclosures under uniform assumptions are denoted below. Additional discussion of the PA 202 and uniform assumptions may be found on the State website.

| Uniform Assumption | PA 202 | Valuation Assumption Used | Uniform Assumption Used |
|--|---|---|---|
| Investment Rate of Return Discount Rate | Maximum of 7.00%^ | 6.75% | 6.75% |
| Minimum of 3.50% or based on experience study within last 5 years | | 3.50% + Merit and longevity (based on experience study dated November 8, 2018) | 3.50% + Merit and longevity (based on experience study dated November 8, 2018) |
| Mortality | Version of Pub-2010 or based on experience study within last 5 years | A version of RP-2014 (Based on experience study dated November 8, 2018) | A version of RP-2014 (Based on experience study dated November 8, 2018) |
| Healthcare Inflation (for Medical and Drug) | Non-Medicare: Initial rate of 8.25% decreasing 0.25% per year to a 4.50% long-term rate Medicare: Initial rate of 6.50% decreasing 0.25% per year to a 4.50% long-term rate | Non-Medicare: Initial rate of 8.25% decreasing 0.25% per year to a 4.50% long-term rate Medicare: Initial rate of 6.50% decreasing 0.25% per year to a 4.50% long-term rate | Non-Medicare: Initial rate of 8.25% decreasing 0.25% per year to a 4.50% long-term rate Medicare: Initial rate of 6.50% decreasing 0.25% per year to a 4.50% long-term rate |
| Amortization of the Unfunded Accrued Actuarial Liability: Period | Maximum Period of 29 Years | 20 years for all groups | 20 years for all groups |
| Method | Closed Plans: Level Dollar Open Plans: Level Percent of Payroll or Level Dollar | Level Percent of Payroll | Level Percent of Payroll |
| Туре | Closed | Closed | Closed |

[^] A blended rate calculated using GASB Statement No. 75 methodology. For periods in which projected plan assets are sufficient to make projected benefit payments – maximum of 7.00%; for periods in which projected plan assets are NOT sufficient to make projected benefit payments – 3.00%.



State Reporting as of December 31, 2020

The following information has been prepared to provide some of the information necessary to complete the pension reporting requirements for the State of Michigan's Local Government Retirement System Annual Report (Form No. 5572). Additional resources are available on the State website.

| Line | Descriptive Information | |
|------|--|-------------------|
| 19 | Actuarial Assumptions | |
| 20 | Assumed Rate of Investment Return ¹ | 6.75% |
| 21 | Enter discount rate | 6.75% |
| 22 | Amortization method utilized for funding the system's unfunded actuarial accrued liability, if any | Level Percent |
| 23 | Amortization period utilized for funding the system's unfunded actuarial accrued liability, if any | 20 |
| 24 | Is each division within the system closed to new employees? | No |
| 25 | Health care inflation assumption for the next year | 8.25% |
| 26 | Health care inflation assumption - Long-Term Trend Rate | 4.50% |
| 27 | Uniform Assumptions ² | |
| 28 | Enter retirement pension system's actuarial value of assets using uniform assumptions | \$38,450,952 |
| 29 | Enter retirement pension system's actuarial accrued liabilities using uniform assumptions | \$64,164,023 |
| 30 | Funded ratio using uniform assumptions | Auto ³ |
| 31 | Actuarially Determined Contribution (ADC) using uniform assumptions 4 | \$ 3,416,926 |
| 32 | All systems combined ADC/Governmental fund revenues | Auto ³ |

¹ Net of administrative expenses.



² Information on lines 27-32 is based on assumptions listed on the prior page as of the most recent valuation date, December 31, 2020, after reflecting uniform assumptions.

³ Automatically calculated by State of Michigan Form 5572.

⁴ 3.04% Percent-of-Payroll contribution rate multiplied by projected pay for the fiscal year ending December 31, 2022.

Supplementary Information

Valuation Date

Actuarial Cost Method

Amortization Method

Remaining Amortization Periods

Asset Valuation Method

Actuarial Assumptions:

Investment Rate of Return

Projected Salary Increases

Health Care Cost Trend Rate Non-Medicare

Medicare

December 31, 2020

Individual Entry Age

Level Percent-of-Payroll Closed

20 Years

4-Year Smoothed

6.75%

3.5% - 10.5%

8.25% Initial decreasing by 0.25% per year to 4.5% Ultimate 6.5% Initial decreasing to 0.25% per year to 4.5% Ultimate



Schedule of Funding Progress and Schedule of Employer Contributions

Schedule of Funding Progress

| Actuarial Valuation Date | Actuarial Value of Assets* (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ([b-a]/c) |
|--------------------------------|---|---|------------------------------------|--------------------------|---------------------------|---|
| 12/31/2006 | \$ - | \$ 40,650,129 | \$ 40,650,129 | 0.0% | \$ 91,300,604 | 44.5% |
| 12/31/2007 | 2,522,191 | 31,652,880 | 29,130,689 | 8.0% | 91,856,607 | 31.7% |
| 12/31/2008 | 4,201,774 | 38,377,399 | 34,175,625 | 10.9% | 94,065,929 | 36.3% |
| 12/31/2009 | 6,467,528 | 39,171,891 | 32,704,363 | 16.5% | 95,198,853 | 34.4% |
| 12/31/2010 | 9,003,067 | 45,864,042 | 36,860,975 | 19.6% | 92,734,218 | 39.7% |
| 12/31/2011 | 10,531,436 | 44,257,602 | 33,726,166 | 23.8% | 91,139,213 | 37.0% |
| 12/31/2012 | 12,605,625 | 48,975,067 | 36,369,442 | 25.7% | 91,421,357 | 39.8% |
| 12/31/2013 | 15,178,339 | 50,174,616 | 34,996,277 | 30.3% | 91,589,536 | 38.2% |
| 12/31/2014 | 16,705,220 | 52,899,776 | 36,194,556 | 31.6% | 90,860,847 | 39.8% |
| 12/31/2015 | 17,140,234 | 55,167,726 | 38,027,492 | 31.1% | 96,580,053 | 39.4% |
| 12/31/2016 | 19,656,145 | 53,997,661 | 34,341,516 | 36.4% | 88,846,626 | 38.7% |
| 12/31/2017 | 25,315,572 | 52,996,963 | 27,681,391 | 47.8% | 92,095,534 | 30.1% |
| 12/31/2018 | 28,509,900 | 58,948,727 | 30,438,827 | 48.4% | 98,195,782 | 2 31.0% |
| 12/31/2019 | 31,940,824 | 59,480,568 | 27,539,744 | 53.7% | 97,692,497 | 7 28.2% |
| 12/31/2020 | 38,450,952 | 64,164,023 | 25,713,071 | 59.9% | 104,925,555 | 24.5% |

Incorporating asset smoothing effective with the 12/31/2018 valuation.

Schedule of Employer Contributions

| | Fiscal | Actuarially | | |
|------------------|------------|--------------|--|--|
| Valuation | Year | Determined | | |
| Date | Ending | Contribution | | |
| | | | | |
| 12/31/2006 | 12/31/2008 | \$ 3,940,154 | | |
| 12/31/2007 | 12/31/2009 | 2,811,665 | | |
| 12/31/2008 | 12/31/2010 | 3,367,650 | | |
| 12/31/2009 | 12/31/2011 | 3,284,650 | | |
| 12/31/2010 | 12/31/2012 | 3,600,818 | | |
| 12/31/2011 | 12/31/2013 | 3,193,869 | | |
| 12/31/2012 | 12/31/2014 | 3,401,518 | | |
| 12/31/2013 | 12/31/2015 | 3,318,618 | | |
| 12/31/2014 | 12/31/2016 | 3,351,181 | | |
| 12/31/2015 | 12/31/2017 | 3,394,981 | | |
| 12/31/2016 | 12/31/2018 | 3,151,965 | | |
| 12/31/2017 | 12/31/2019 | 2,908,628 | | |
| 12/31/2018 | 12/31/2020 | 3,513,339 | | |
| 12/31/2019 | 12/31/2021 | 3,338,355 | | |
| 12/31/2020 | 12/31/2022 | 3,416,926 | | |



SECTION G

GLOSSARY

Glossary

Accrued Service - The service credited under the plan, which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability - The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions - Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method - A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent - A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value - The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarially Determined Contribution (ADC) - The ADC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ADC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

Amortization - Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Governmental Accounting Standards Board (GASB) - GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Medical Trend Rate (Health Care Inflation) - The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

Normal Cost - The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.



Glossary (Concluded)

Other Postemployment Employee Benefits (OPEB) - OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other health care benefits.

Reserve Account - An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability - The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

Valuation Assets - The value of current plan assets recognized for valuation purposes.

