City of Grand Rapids Police
Other Postemployment Benefits

Actuarial Valuation Report
June 30, 2020

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December 11, 2020

Ms. Molly Clarin
Chief Financial Officer
City of Grand Rapids
300 Monroe Avenue, N.W.
Grand Rapids, Michigan 49503

Re: City of Grand Rapids Police OPEB Actuarial Valuation as of June 30, 2020
Actuarial Disclosures

Dear Ms. Clarin:

The results of the June 30, 2020 Annual Actuarial Valuation of the Other Postemployment Benefits provided by the City of Grand Rapids for Police Employees are presented in this report.

This report was prepared at the request of the City of Grand Rapids and is intended for use by the Retirement System and those designated or approved by the City of Grand Rapids. This report may be provided to parties other than the City of Grand Rapids only in its entirety and only with the permission of the City of Grand Rapids. 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 June 30, 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.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report 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 June 30, 2020. The valuation was based upon information furnished by the City, Meritain, Blue Cross Blue Shield, and Advantage Benefits Group, concerning retiree health care 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 City, Meritain, Blue Cross Blue Shield, and Advantage Benefits Group.

This report was prepared using assumptions adopted by the City. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. Additional information about the actuarial assumptions is included in the section of this report entitled Actuarial Cost Method and Actuarial Assumptions.

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 Other Postemployment Benefits provided by the City of Grand Rapids for Police Employees 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, Abra D. Hill, and Michael D. Kosciuk are Members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

James D. Anderson

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

Abra D. Hill

Abra D. Hill, ASA, FCA, MAAA

Michael D. Kosciuk, ASA, EA, ACA, MAAA

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EXECUTIVE SUMMARY

Executive Summary

Actuarially Determined Contribution

Please note that beginning with the fiscal year ending June 30, 2017, GASB Statement No. 43 was replaced by GASB Statement No. 74. Also, beginning with the fiscal year ending June 30, 2018, GASB Statement No. 45 will be replaced by GASB Statement No. 75. The report dated September 11, 2020 complies with the actuarial requirements of GASB Statements No. 74 and No. 75 beginning with the fiscal year ending June 30, 2020. There is no longer an “Annual Required Contribution” (ARC) calculated in the valuation reports. Therefore, we have determined the “Actuarially Determined Contribution” for subsequent years.

We have calculated the Actuarially Determined Contribution for the fiscal year ending June 30, 2022 using an interest rate assumption of 5.0%. Below is a summary of the results.

The Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2022 was determined to be $1,201,211 ($1,075,712 for DB, $125,499 for RHSA). The expected employer portion of the claims and premium amounts paid during the fiscal year ending June 30, 2022 are estimated to be $2,873,925 for DB and $0 for RHSA. These amounts reflect the employer portion of the retiree only premium rates and the implicit subsidy for retirees and covered spouses.

For additional details, please see Section A of the report.

Liabilities and Assets

The present value of all benefits expected to be paid to current plan members as of June 30, 2020 is $49,107,141 ($47,572,314 for DB, $1,534,827 for RHSA). The actuarial accrued liability, which is the portion of the $49,107,141 attributable to service accrued by plan members as of June 30, 2020, is $45,603,850 ($44,894,048 for DB, $709,802 for RHSA). The actuarial value of assets currently set aside for OPEB purposes as of June 30, 2020 is $38,674,207. Assets are currently only allocated to the Defined Benefit portion of the plan. Thus, the Police DB plan is 86.1% funded.

SECTION A

VALUATION RESULTS

Development of the Actuarially Determined Contributions for the Other Postemployment Benefits

Contributions for	Police - Actuarially Determined Contribution		
	Defined Benefit[1]	RHSA[2]	Total
Normal Cost			
Normal Retirement	$ 399,366		
Termination Benefits	67,443		
Disability/Death-in-Service	102,476		
Total Normal Cost	$ 569,285	$ 63,193	$ 632,478
Amortization of Unfunded Actuarial Accrued Liabilities (Amortized over 18 years)	$ 506,427	$ 62,306	$ 568,733
Actuarially Determined Contribution for the Fiscal Year Ending June 30, 2022	**$ 1,075,712**	**$ 125,499**	**$ 1,201,211**

1 *For City budgeting purposes related to the Defined Benefit plan.*
2 *RHSA information reflects the ability of Defined Contribution RHSA participants to access the Health Care plan at reduced costs due to blended rates plus employer paid duty disability benefits.*

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over a closed period of 18 years beginning with the fiscal year ending June 30, 2022 and decreasing by 1 each year thereafter.

The assumptions used to calculate the results shown above include a 5.0% investment return rate.

Determination of Unfunded Actuarial Accrued Liability as of June 30, 2020

	Police		
	Defined Benefit[1]	RHSA[2]	Total
A. Present Value of Future Benefits			
1. Retirees and Beneficiaries	$20,443,314	$ 709,802	$21,153,116
2. Vested Terminated Members	8,383,581	0	8,383,581
3. Active Members	18,745,419	825,025	19,570,444
Total Present Value of Future Benefits	$47,572,314	$ 1,534,827	$49,107,141
B. Present Value of Future Employer Normal Costs	2,678,266	825,025	3,503,291
C. Actuarial Accrued Liability (A.-B.)	44,894,048	709,802	45,603,850
D. Actuarial Value of Assets	38,674,207	0	38,674,207
E. Unfunded Actuarial Accrued Liability (C.-D.)	$ 6,219,841	$ 709,802	$ 6,929,643
F. Funded Ratio (D./C.)	86.1%	0.0%	84.8%

[1] *For City budgeting purposes related to the Defined Benefit plan.*

[2] *RHSA information as required for GASB disclosure which reflects the ability of Defined Contribution RHSA participants to access the Health Care plan at reduced cost due to blended rates plus employer paid duty disability benefits.*

Illustrative Projections
as of June 30, 2020*

Year Ending June 30,	Asset Value BOY	Actuarially Determined Contribution	Health Care Benefits^	Investment Income	Asset Value EOY
2022	$ 39,274,068	$ 1,075,712	$ 2,873,925	$ 1,919,296	$ 39,395,151
2023	39,395,151	968,399	3,268,516	1,912,956	39,007,990
2024	39,007,990	876,622	3,672,292	1,881,360	38,093,680
2025	38,093,680	793,727	4,113,287	1,822,707	36,596,827
2026	36,596,827	721,241	4,424,989	1,738,377	34,631,456
2027	34,631,456	663,159	4,632,663	1,633,546	32,295,498
2028	32,295,498	617,811	4,739,089	1,513,000	29,687,220
2029	29,687,220	582,950	4,870,139	1,378,489	26,778,520
2030	26,778,520	556,914	4,999,106	1,229,226	23,565,554
2031	23,565,554	538,356	5,054,068	1,066,762	20,116,604
2032	20,116,604	525,530	4,777,212	900,835	16,765,757
2033	16,765,757	516,767	4,473,342	740,580	13,549,762
2034	13,549,762	510,747	4,310,179	583,661	10,333,991
2035	10,333,991	506,769	3,802,357	435,315	7,473,718
2036	7,473,718	504,231	2,931,974	313,733	5,359,708
2037	5,359,708	502,739	2,458,604	219,685	3,623,528
2038	3,623,528	501,921	1,968,059	144,970	2,302,360
2039	2,302,360	501,490	1,357,560	93,977	1,540,267
2040	1,540,267	130	851,930	55,978	744,445
2041	744,445	41	416,689	26,933	354,730
2042	354,730	8	247,823	11,617	118,532
2043	118,532	1	91,780	3,660	30,413
2044	30,413	-	31,164	751	-

* *The projected results above are based on the existing Defined Benefit active, deferred, and retired members on the valuation date. Any benefits and/or contributions associated with Defined Contribution RHSA members, or members hired after the valuation date have not been included in these results.*

^ *Health Care Benefit payments were loaded to reflect children's coverage.*

Unfunded actuarial accrued liabilities were amortized over an 18-year period.

Comments

Comment A: The Actuarially Determined Contributions (ADC) for the fiscal year ending June 30, 2022 increased slightly from the ADC determined in the previous valuation report. Factors contributing to this increase include, but are not limited to:

- Increasing the load for health care coverage of children of retirees from 4.0% to 7.0%; and
- Assumption changes:
  - Updating the mortality tables and other demographic assumptions to be consistent with the City of Grand Rapids Police and Fire Retirement System assumptions.

Offsetting these factors are decreases due to:

- Lower than expected claims experience;
- Resetting the health care trend rates with an initial rate of 7.70%; and
- Implementation of asset smoothing to help mitigate the impact of market volatility.

The combined impact of the various changes noted above increased the liability by approximately $1,642,000.

Comment B: Liabilities increased this year for the reasons stated in Comment A. Premiums developed in the trend report published October 13, 2020 are based on three years of experience. This horizon is reasonable for the purpose of developing near-term premium rates, as these rates are re-evaluated each year. Actuarial funding and accounting valuations serve a different purpose relating to long term stability and funding of the Health Care fund over a much longer time horizon. Due to this difference in time horizons, unexpected changes in the per capita claims will be magnified in the actuarial funding and accounting valuations. If claims costs increase unexpectedly in future years, significant increases in liabilities are possible.

Comment C: One of the key assumptions used in any valuation of the cost of postemployment benefits is the long-term rate of investment return on the plan assets that will be used to pay plan benefits. The June 30, 2020 valuation investment return assumption is 5.0%, as requested by the City.

Comment D: The contribution rates shown include amortization of the unfunded actuarial accrued liability over a closed period of 18 years beginning with the fiscal year ending June 30, 2022.

Comment E: The cost of health care coverage for the children of retirees has increased since the last measurement. A 7.0% load was applied to all health care liabilities and projections of benefits paid to value the additional cost of children's coverage.

Comment F: Projections presented in this report will differ from those provided in the Trend Report dated October 13, 2020 due to:

- Age-based projection methodology used in this report versus average-based projections used in the Trend Report;
- Data variances;
- Projected cash flows in this report are net of retiree contributions; and
- The valuation year starts July 1st while the rating year (for Trend Report purposes) starts January 1st.

Comments

Comment G: 100% of future eligible RHSA retirees were assumed to participate in the City of Grand Rapids Retiree Health Care Plan. The ADC for the RHSA was provided for GASB reporting purposes. The City of Grand Rapids decides whether to pre-fund the RHSA portion of the ADC, if at all. Active RHSA balances were not provided, and have not been used to offset benefits for future Duty Disability Retirements.

Comment H: The GASB issued Statement Nos. 74 and 75 for OPEB valuations similar to the pension accounting standards. GASB Statement No. 74 for the plan OPEB disclosures is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures is effective for employer fiscal years beginning after June 15, 2017. The GASB implementation guide for Statements No. 74 and No. 75 provides additional clarification related to the implementation of these Statements. The City has complied with GASB Statements No. 74 and No. 75 (please see the report dated September 11, 2020). The basis for the GASB Statement No. 74 and GASB Statement No. 75 information will be this valuation (as of June 30, 2020), where roll-forward techniques will be applied.

Comment I: The calculations within this report have been performed incorporating $38,674,207 in retiree health assets. We understand from the plan sponsor that these assets reside in a qualifying trust.

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

- The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; and
- The measure is inappropriate for assessing the need for or the amount of future employer contributions.

Comment K: Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. The information needed to satisfy PA 202 reporting requirements was supplied in the GASB 74/75 report issued September 11, 2020.

SECTION B

RETIREE PREMIUM RATE DEVELOPMENT

Retiree Premium Rate Development

The initial per capita health care costs are an important part of a retiree health valuation. The per capita health care costs used in this valuation are based on analysis performed in connection with the 2021 Trend Report prepared for the City dated October 13, 2020. The following process is used to determine per capita health costs for the valuation from the results provided in the Trend Report:

- The pre-65 retiree only "2021 Calculated Premium Rates" developed on page 19 of the 2021 Trend Report serve as the basis of pre-65 per capita costs used in the valuation. The per contract rates are converted to per member rates and then converted to age-graded rates.
- Beginning in 2019 the foundation of the participants contribution changed to be based on a percentage of the blended (active and pre-65 retiree) tier rate. This new scheme is more volatile since it is based on fewer participants in each tier and therefore to be conservative, the 2021 overall blended (pre-65 retiree and active composite rate) implemented rates (page 20 of the Trend Report) serve as the basis for pre-65 retiree contributions. For the next valuation, using the tiered rate structure as the basis of contributions will be evaluated further.
- The post-65 retirees pay 100% of the true cost developed on page 20 (2021 Implemented Premium Rates).

Please see the 2021 Trend Report for other important details regarding the rate setting process. A general description of the process follows.

Background

Eligible City retirees (and eligible spouses) receive benefits from the self-insured plan. For Non-Medicare retirees, there is one benefit option and for Medicare retirees, there is a choice of four options with the same medical benefits but differing drug copays.

Rate Development

For the self-insured medical plans and prescription drugs plans, initial per capita costs were developed separately for pre-65 and post-65 retirees using claims experience from July 2018 to June 2020 supplied by Advantage Benefits Group in conjunction with exposure data for the retired members of the health care program. These claims were projected on an incurred claim basis, adjusted for plan design changes, and loaded for administrative expenses. Due to unusual claim levels as a result of the coronavirus pandemic in 2020, claims for April through June, 2020 were modified.

The initial medical and drug premium rates used in the valuation are a weighted average cost of the 2-year experience period to smooth out any large year to year fluctuations.

Age graded and sex distinct per capita costs are utilized by this valuation. The initial costs developed 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. This process more accurately reflects health care costs in the retired population over the projection period.

Retiree Premium Rate Development

The table below shows the combined medical and prescription drug one-person monthly per capita costs at select ages.

Current and Future Retirees		
For Those Not Eligible for Medicare		
Age	Male	Female
45	$ 484.07	$ 668.09
50	630.32	776.49
55	829.43	905.62
60	1,071.26	1,054.82

The dental and vision per capita costs used in this valuation of the plan were not "age graded" since these claims do not vary significantly by age. The monthly dental per capita cost used in this valuation is $42.42 for single coverage and $82.73 for two-person or family coverage per month. The monthly vision per capita cost used in this valuation is $12.54 for single coverage and $24.45 for two-person or family coverage per month.

Retiree Premium Rate Development

Health Care Cost 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 healthcare sector would eventually consume the entire GDP. It is on this basis that we project premium rate increases will continue to exceed wage inflation for the next ten years, but by less each year until leveling off at an ultimate rate, assumed to be 3.50% in this valuation.

While experience is often the best starting point for future costs, GRS does not rely on a group's experience in setting the near-term trend assumptions since trends vary significantly from year to year and are not credible for most groups. Therefore, professional judgment, trends from GRS' book of business and industry benchmarks (e.g., trend reports from various Pharmacy Benefit Management (PBM) organizations and national healthcare benefit consulting firms) are used in conjunction with a group's historical experience to establish the trend assumptions.

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

Year	Medical and Prescription Drugs	Dental	Vision
2021	7.70 %	3.50 %	3.50 %
2022	7.20	3.50	3.50
2023	6.70	3.50	3.50
2024	6.20	3.50	3.50
2025	5.70	3.50	3.50
2026	5.20	3.50	3.50
2027	4.70	3.50	3.50
2028	4.20	3.50	3.50
2029	3.95	3.50	3.50
2030 & Later	3.50	3.50	3.50

Retiree Premium Rate Development

Actuarial Disclosures

The premium rates used in this valuation were developed using the proprietary Excel models which in James E. Pranschke's professional judgment provides the initial projected costs which are consistent with the purposes of the valuation. We perform tests to ensure that the models, in their entirety, reasonably represent that which is intended to be modeled.

Aging factors used in the premium development models were developed based on the information and data from a 2013 study commissioned by the Society of Actuaries entitled "Health Care Costs – From Birth to Death."

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. Pranschke

James E. Pranschke, FSA, FCA, MAAA

Consideration of Health Care Reform

On December 20, 2019, the "Further Consolidated Appropriations Act of 2020," H.R. 1865, was signed into law. The Act repeals the "Cadillac tax" which was a tax provision from the Affordable Care Act (ACA). As a result, any liability/provision analysis included as part of the prior funding valuation is no longer required. In addition, no further adjustments associated with the "Cadillac tax" are required. For purposes of the City of Grand Rapids Police OPEB funding valuation, the repeal of the "Cadillac tax" does not have an impact on plan liabilities because no load was applied as part of the June 30, 2019 funding valuation.

We have not identified any other specific provision of health care reform that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will review and monitor those impacts.

SECTION C

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

City of Grand Rapids Police Retiree Health Care Plan
Defined Benefit Health Care
Summary of Benefits as of June 30, 2020

Plan Participants

Police Officers, Sergeants, and Command Officers of the City of Grand Rapids Retiree Health Care Plan are eligible to receive retiree health care benefits. The City covers up to 100% of retiree health care coverage up to age 65.

Benefit Amount

Defined Benefit Retiree Health covers up to 100% of retiree health care coverage up to age 65 based on an accrual schedule. As of 12/17/2008 for Police Officers and Sergeants and as of 9/15/2009 for Police Command, future retirees will pay a minimum of 20% of BLENDED active/pre-65 retiree cost per contract. This is applied before the accrual schedule shown below. Active employees with less than 10 years are no longer eligible for the Defined Benefit plan.

Retiree Health Care Blended Composite Premium Sharing

		All GRPOA GRCOA Retiring after June 30, 2013				GRCOA Retiring before June 30, 2013			
		Contract	City	Blended Premium		Contract	City	Blended Premium	
Years	Months	City%	Maximum	City%	EE%	City%	Maximum	City%	EE%
10	120	40%	80%	32.0%	68.0%	55%	80%	44.0%	56.0%
11	132	44%	80%	35.2%	64.8%	58%	80%	46.4%	53.6%
12	144	48%	80%	38.4%	61.6%	61%	80%	48.8%	51.2%
13	156	52%	80%	41.6%	58.4%	64%	80%	51.2%	48.8%
14	168	56%	80%	44.8%	55.2%	67%	80%	53.6%	46.4%
15	180	60%	80%	48.0%	52.0%	70%	80%	56.0%	44.0%
16	192	64%	80%	51.2%	48.8%	73%	80%	58.4%	41.6%
17	204	68%	80%	54.4%	45.6%	76%	80%	60.8%	39.2%
18	216	72%	80%	57.6%	42.4%	79%	80%	63.2%	36.8%
19	228	76%	80%	60.8%	39.2%	82%	80%	65.6%	34.4%
20	240	80%	80%	64.0%	36.0%	85%	80%	68.0%	32.0%
21	252	84%	80%	67.2%	32.8%	88%	80%	70.4%	29.6%
22	264	88%	80%	70.4%	29.6%	91%	80%	72.8%	27.2%
23	276	92%	80%	73.6%	26.4%	94%	80%	75.2%	24.8%
24	288	96%	80%	76.8%	23.2%	97%	80%	77.6%	22.4%
25	300	100%	80%	80.0%	20.0%	100%	80%	80.0%	20.0%
Disability Retirement		100%	80%	80.0%	20.0%	100%	80%	80.0%	20.0%

City of Grand Rapids Police Retiree Health Care Plan
Defined Benefit Health Care
Summary of Benefits as of June 30, 2020

Normal Retirement Eligibility

Age 50 with 10 years.

Deferred Retirement Benefits

Deferred retiree health care is available to terminated Police Officers and Sergeants with 10 or more years of service. Deferred benefits begin at age 50.

Duty/Non-Duty Death-in-Service Retirement Benefits

Deceased member must be eligible for retirement at death. Surviving spouse pays any accrual and applicable premium sharing amount until such time as the covered person would have reached age 65.

Duty/Non-Duty Disabled Retirement Benefits

No age or service requirement. Benefits commence immediately for qualified disabled member.

Benefits for Spouses of Retired Employees

Spouses of retired employees are eligible to receive health care benefits as long as the retiree is eligible. Coverage continues to surviving spouses of deceased retirees until the earlier of when retiree would have reached age 65 or when the spouse reaches age 65.

Medicare-Eligible Provisions

Retirees are required to enroll in Medicare once eligible. Retiree is responsible for paying the full premium for retiree Medicare coverage offered through the City.

Dental/Vision Coverage

Same as Retiree Health Care Eligibility Conditions.

Life Insurance Coverage

The City does not provide life insurance for retirees.

Opt-Out

The City does not provide Opt-Out payments or payment in lieu of retiree health care coverage for retirees.

Other Employment and Compensation

A retiree, spouse or other dependent who has coverage from an employer who provides medical coverage should coordinate benefits, making the City's coverage secondary.

This is a brief summary of the City of Grand Rapids Retiree Health Care Plan 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.

City of Grand Rapids Police Retiree Health Care Plan
RHSA Members
Summary of Benefits as of June 30, 2020

Plan Participants

Police Officers, Sergeants, and Command Officers of the City of Grand Rapids Retiree Health Care Plan are eligible to purchase retiree health care benefits until Medicare eligible.

Benefit Amount

Defined Contribution RHSA members can purchase retiree health care coverage through the City by paying the full blended (active/pre-65 retiree) premium. For Duty Death-in-Service retirements and Duty Disability retirements, after RHSA is exhausted, the City will resume paying the premiums less any applicable premium sharing amount until such time as the covered person would have reached age 65.

Normal Retirement Eligibility

Age 50 with 10 years.

Deferred Retirement Benefits

Deferred retiree health care is available to terminated Police Officers and Sergeants with 10 or more years of service. Deferred benefits begin at age 50. RHSA Police Officers and Sergeant members can purchase retiree health care coverage through the City by paying the defined benefit accrual amount and employee cost share of blended (active/pre-65 retiree) premium.

Retiree health care is not available to deferred Police Command retirees whose coverage ceases during deferral period. RHSA Police Command members can purchase retiree health care coverage through the City by paying the full blended (active/pre-65 retiree) premium.

Duty Death-in-Service Retirement Benefits

Deceased member must be eligible for retirement at death. Surviving spouse benefits are immediate. Premiums shall be first paid to the City from funds in the employee's RHSA account if the surviving spouse and/or eligible dependents wish to continue to receive retiree health care. When RHSA is exhausted, the City shall resume paying the premiums, less any applicable premium sharing amount until such time as the covered person would have reached age 65.

Non-Duty Death-in-Service Retirement Benefits

No age or service requirement for Duty Death-in-Service. Benefits are immediate.

Duty Disabled Retirement Benefits

No age or service requirement. Benefits commence immediately for qualified disabled member. Premiums shall be first paid to the City from funds in the employee's RHSA account if the surviving spouse and/or eligible dependents wish to continue to receive retiree health care. When RHSA is exhausted, the City shall resume paying the premiums, less any applicable premium sharing amount until such time as the covered person would have reached age 65.

Non-Duty Disabled Retirement Benefits

No age or service requirement. Benefits commence immediately for qualified disabled member.

City of Grand Rapids Police Retiree Health Care Plan
RHSA Members
Summary of Benefits as of June 30, 2020

Benefits for Spouses of Retired Employees

Spouses of retired employees are eligible to receive health care benefits as long as the retiree is eligible. Coverage continues to surviving spouses of deceased retirees until the earlier of when retiree would have reached age 65 or when the spouse reaches age 65.

Medicare-Eligible Provisions

Retirees are required to enroll in Medicare once eligible. Retiree is responsible for paying the full premium for retiree Medicare coverage offered through the City.

Dental/Vision Coverage

Same as Retiree Health Care Eligibility Conditions.

Life Insurance Coverage

The City does not provide life insurance for retirees.

Opt-Out

The City does not provide Opt-Out payments or payment in lieu of retiree health care coverage for retirees.

Other Employment and Compensation

A retiree, spouse or other dependent who has coverage from an employer who provides medical coverage should coordinate benefits, making the City's coverage secondary.

This is a brief summary of the City of Grand Rapids Retiree Health Care Plan 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.

City of Grand Rapids Police
Active Member Demographic Data as of June 30, 2020

Age	Years of Service to Valuation Date							
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Total No.
20-24	25							25
25-29	34	12						46
30-34	27	19						46
35-39	8	8	9	3				28
40-44	1	4	8	21	12			46
45-49	1			8	41	7		57
50-54			1	4	20	14	1	40
55-59					1	3	3	7
60-64								
65 & Over							1	1
Totals	**96**	**43**	**18**	**36**	**74**	**24**	**5**	**296**

The active member counts above include current active employees who participate in the City's defined contribution plan and are eligible to purchase retiree health benefits through the City.

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

	DB	RHSA	Total
Count:	87	209	296
Age (Years):	49.3	34.3	38.7
Service (Years):	24.7	8.3	13.1

City of Grand Rapids Police
Retired and Deferred
Member Demographic Data as of June 30, 2020

Defined Benefit Police Retirees

Age	Number of Retirees		
	Male	Female	Total
Under 55	43	8	51
55-59	27	12	39
60-64	14	8	22
65 & Over	4	4	8
Totals	**88**	**32**	**120**

The above exhibit includes only defined benefit retirees receiving health care benefits from the City. In addition, there are five RHSA retirees purchasing health care through the City and one RHSA retiree receiving health care partially paid for by the City.

Police Vested Deferred

Age	Number of Deferred Members		
	Male	Female	Total
Under 40	0	0	0
40-44	2	1	3
45-49	10	5	15
50 & Over	3	3	6
Totals	**15**	**9**	**24**

Only retirees and vested deferred members valued in this report are shown in the exhibits above.

City of Grand Rapids – Police Other Postemployment Benefits
Reported Financial Information
(Market Value)

		June 30, 2020
Additions		
Contributions		
Employer	$	2,786,728
Nonemployer contributing entities		-
Active Employees		-
Other		-
Total Contributions	$	2,786,728
Investment Income		
Net Appreciation in Fair Value of Investments	$	933,428
Interest and Dividends		11,104
Less Investment Expense		-
Net Investment Income	$	944,532
Other		-
Total Additions	$	3,731,260
Deductions		
Benefit payments, including refunds of employee contributions*	$	2,170,815
OPEB Plan Administrative Expense		173,855
Other		-
Total Deductions	$	2,344,670
Net Increase in Net Position	$	1,386,590
Market Value of Assets for OPEB		
Beginning of Year (July 1, 2019)	$	36,571,540
End of Year (June 30, 2020)	$	37,958,130

** Benefit payments exclude $438,173 in retiree contributions.*

City of Grand Rapids – Police Other Postemployment Benefits
Development of Valuation Assets

Year Ended June 30	2019	2020	2021	2022	2023	2024
A. Funding Value Beginning of Year		$36,571,540				
B. Market Value End of Year	$36,571,540	37,958,130				
C. Market Value Beginning of Year		36,571,540				
D. Non-Investment Net Cash Flow		442,058				
E. Investment Income						
E1. Market Total: B - C - D		944,532				
E2. Assumed Rate of Investment Return		5.00%				
E3. Amount for Immediate Recognition		$1,839,628				
E4. Amount for Phased-In Recognition: E1 - E3		(895,096)				
F. Phased-In Recognition of Investment Income						
F1. Current Year: (1/5) x E4		(179,019)				
F2. First Prior Year		0	$ (179,019)			
F3. Second Prior Year		0	0	$ (179,019)		
F4. Third Prior Year		0	0	0	$ (179,019)	
F5. Fourth Prior Year		0	0	0	0	$ (179,020)
F6. Total Recognized Investment Gain		(179,019)	(179,019)	(179,019)	(179,019)	(179,020)
G. Funding Value End of Year A + D + E3 + F6		38,674,207				
H. Difference between Market & Funding Value		(716,077)				
I. Recognized Rate of Return		4.51 %				
J. Market Rate of Return		2.57 %				
K. Ratio of Funding Value to Market Value		101.89 %				

In the year of implementation, the Beginning of Year Funding Value of Assets is set equal to the Beginning of Year Market Value of Assets. The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (line E4) are phased-in over a closed 5-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. If assumed rates are exactly realized for 4 consecutive years, it will become equal to Market Value.

SECTION D

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Valuation Methods

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 Actuarial Cost Method** having the following characteristics:

(i) The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and

(ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded Actuarial Accrued Liabilities (UAAL) were amortized on a level dollar basis. The UAAL were determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment is the amount required to fully amortize the UAAL over the 18-year period beginning with the fiscal year ending June 30, 2022. This UAAL payment reflects payments expected to be made between the valuation date and the fiscal year for which the contributions in this report have been calculated. The 18-year amortization factor used is 11.9795.

Actuarial Value of Assets. Last year's valuation assets are increased by contributions, expected investment income on last year's valuation assets and non-investment net cash flow, and reduced by refunds, benefit payments and expenses. To this amount is added the phased-in recognition of investment income. The phased-in recognition is the sum over the five years ending on the valuation date of 20% of the difference between each year's expected return and actual market return.

Actuarial Assumptions

The rationale for the retirement rates, rates of merit and seniority salary increases, rates of separation from active membership, and disability rates used in this valuation is included in the 5-year experience study for the period January 1, 2015 through December 31, 2019 issued July 27, 2020. All assumptions are expectations of future experience, not market measures.

Rates of Investment Return used in the valuation was 5.0% per year, compounded annually, net of expenses. This assumption is used to equate the value of payments due at different points in time.

The total number of active defined benefit retiree health care participants is expected to decline in the future.

The rates of Price Inflation are not specifically used for this valuation. However, a rate of price inflation of 2.25% would be consistent with other assumptions in this report.

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

Service at	% Increase in Salary		
Beginning of Year	Merit & Seniority	Base (Economic)	Increase Next Year
1	17.00 %	3.00 %	20.00 %
2	7.00	3.00	10.00
3	6.00	3.00	9.00
4	5.00	3.00	8.00
5	4.00	3.00	7.00
6 & Beyond	1.00	3.00	4.00

Actuarial Assumptions (Continued)

The mortality tables

- **Health Pre-Retirement:** The Pub-2010 Amount-Weighted, Safety, Employee, Male and Female tables, a base year of 2010 and future mortality improvements projected using scale MP-2019.

- **Healthy Post-Retirement:** The Pub-2010 Amount-Weighted, Safety, Healthy Retiree, Male and Female tables, with a base year of 2010 and future mortality improvements projected using scale MP-2019.

- **Disability Retirement:** The Pub-2010 Amount-Weighted, Safety, Disabled Retiree, Male and Female tables, with a base year of 2010 and future mortality improvements projected using scale MP-2019.

Sample Age Now	Pre-Retirement Future Life Expectancy (Years)*		Healthy Post-Retirement Future Life Expectancy (Years)*		Disabled Retirement Future Life Expectancy (Years)*	
	Men	Women	Men	Women	Men	Women
50	38.73	41.25	35.59	37.59	34.12	36.22
55	33.61	36.10	30.51	32.47	29.25	31.35
60	28.57	31.01	25.63	27.57	24.58	26.77
65	23.67	25.98	21.02	22.93	20.24	22.45
70	18.93	21.01	16.73	18.52	16.20	18.31
75	14.41	16.22	12.80	14.43	12.47	14.40
80	10.19	11.72	9.37	10.83	9.24	10.83

* *Based on retirements in 2020. Retirements in future years will reflect improvements in life expectancy.*

These rates were first used for the June 30, 2020 valuation.

Actuarial Assumptions (Continued)

The rates of normal retirement used to measure the probability of eligible members retiring under normal retirement conditions during the next year, were as follows. These rates were first used for the June 30, 2020 valuation.

Retirement	Percent of Eligible Active Members Retiring within Next Year
Ages	Police
50	30 %
51	30
52	30
53	30
54	30
55	35
56	35
57	35
58	35
59	35
60	50
61	60
62	70
63	80
64	90
65	100

A member is eligible for pension retirement after attaining age 50 and completing 10 or more years of service. Prior to the above eligibility, members who are eligible for early reduced retirement are assumed to elect this option at a 3% rate per year until eligible for normal retirement.

Actuarial Assumptions (Continued)

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

Sample rates of separation from active employment are shown below. These rates were first used for the June 30, 2020 valuation.

Sample Ages	Police % of Active Members Separating within Next Year
25	3.45 %
30	2.85
35	1.95
40	1.35
45	1.05
50	0.90
55	0.90

Rates of disability among active members are used to estimate the incidence of member disability in future years. 75% of disabilities were assumed to be duty related and 25% of disabilities are assumed to be non-duty related.

Sample Ages	Percent Becoming Disabled within Next Year
20	0.12 %
25	0.12
30	0.12
35	0.27
40	0.59
45	1.05
50	1.68
55	2.51

Miscellaneous and Technical Assumptions

Decrement Operation:	Disability and mortality decrements do not operate during the first five years of service. Disability also does 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.
Marriage Assumption:	90% of Police males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Medicare Coverage:	Assumed to be available for all covered employees on attainment of age 65.
Covered Children:	A 7.0% load was applied for children's coverage.
Election Percentage:	(Police) It was assumed that 100% of retirees would choose to receive retiree health care benefits through the City. Of those assumed to elect coverage, 75% of retirees were assumed to elect two-person coverage, if eligible. For those that elect two-person coverage, it was assumed that coverage would continue to the spouse upon death of the retiree 100% of the time, if eligible. A load of 75% was applied to deferred member liabilities to reflect future election rates.
Retiree Opt-Outs:	Retirees and spouses who have opted-out of coverage are assumed to not re-enroll.
Patient Protection and Affordable Care Act:	In general, changes related to the Patient Protection and Affordable Care Act are reflected to the extent that they are already implemented in the Plan and future changes will be reflected as they become effective. Per the City, no load of was applied to the valuation results in anticipation of future cost increases resulting from this Act.
Deferred and Retired Members:	With the exception of six RHSA retirees, all retired members valued in this valuation were assumed to be part of the Defined Benefit plan. Current deferred members not electing to continue coverage through the deferral period are ineligible to participate in the Defined Benefit Retiree Health Care plan.

SECTION E

SUPPLEMENTARY INFORMATION

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

Supplementary Information

Valuation Date	June 30, 2020
Actuarial Cost Method	Individual Entry Age Normal Cost
Amortization Method	Level Dollar Closed
Remaining Amortization Periods	18 Years
Asset Valuation Method	5-Year Smoothed Value of Assets
Actuarial Assumptions:	
Discount Rate	5.0% Per Year
Projected Salary Increases	
Police	4.00% - 20.00%
Valuation Health Care Cost Trend Rate	
Medical and Drug	7.70% in 2021 grading to 3.50% in 2030
Dental and Vision	3.50% in All Years

Supplementary Information

Schedule of Funding Progress

Actuarial Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)
2011	$ 1,885,035	$ 55,430,263	$ 53,545,228	3.4 %
2012	5,800,843	50,604,054	44,803,211	11.5
2013	10,196,070	58,270,058	48,073,988	17.5
2014	15,217,860	63,443,368	48,225,508	24.0
2015	19,770,732	57,552,601	37,781,869	34.4
2016	24,090,346	61,553,466	37,463,120	39.1
2017	28,821,618	62,311,143	33,489,525	46.3
2018	33,750,459	55,387,943	21,637,484	60.9
2019	36,571,540	44,108,727	7,537,187	82.9
2020	38,674,207	45,603,850	6,929,643	84.8

The above exhibit shows results for both the Defined Benefit group and the RHSA group combined.

APPENDIX

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 is not generally available for other uses.

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

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