

City of Marietta

Consolidated Retirement Plan for Employees of the City of Marietta

Actuarial Report as of July 1, 2021

Setting Contribution Rates for the

Fiscal Years Ending June 30, 2023 and June 30, 2024

June 2022

Consolidated Retirement Plan for Employees of the City of Marietta

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Highlights

Below is a summary of the key results of the actuarial valuation for the Consolidated Retirement Plan for the City of Marietta as of July 1, 2021 and the prior valuation.

	July 1, 2021	July 1, 2019
Number of Active Members	679	730
Annual Compensation	\$36,656,048	\$37,153,135
Number of Retired Members and Beneficiaries	659	631
Annual Benefits	\$13,573,572	\$12,547,100
Number of Former Members entitled to Deferred Vested Benefits	273	281
Annual Benefits	\$2,205,437	\$2,114,987
Assets:		
Actuarial Value	\$137,541,398	\$107,542,150
Market Value	\$137,541,398	\$110,837,138
Unfunded Accrued Liability	64,919,391	88,619,569
Weighted Amortization Period	20.0	23.2
Funded Ratio on Actuarial Value Basis	67.93%	54.82%
Contribution Rates for Fiscal Years Ending:	June 30, 2023 / 2024	June 30, 2021 / 2022
Actuarial Determined Contribution Rate:		
Normal *	2.05%	3.18%
Unfunded Accrued Liability	<u>16.19%</u>	<u>15.74%</u>
Total	18.24%	18.92%

* Includes administrative expenses.

Note: 7/1/2019 values are from prior actuary's report.

Actuarially Determined Contribution

	July 1, 2021	July 1, 2019
1. Present Value of Projected Benefits	\$218,847,581	215,069,218
2. Present Value of Future Plan and Member Contributions	<u>16,386,792</u>	<u>18,907,499</u>
3. Accrued Liability: 1. - 2.	\$202,460,789	\$196,161,719
4. Actuarial Value of Assets	<u>137,541,398</u>	<u>107,542,150</u>
5. Unfunded Accrued Liability: 3. - 4.	\$64,919,391	\$88,619,569
6. Amortization of Unfunded Accrued Liability	6,141,927 *	6,053,311
7. Normal Cost, Including Administrative Expenses	<u>777,785</u>	<u>1,222,821</u>
8. Actuarially Determined Contribution, 6. + 7.	\$6,919,712	\$7,276,132
9. Total Estimated Payroll for Year	\$37,939,010 **	\$38,453,495
10. Actuarially Determined Contribution as a Percentage of Payroll:		
Normal Rate, 7. / 9.	2.05%	3.18%
Amortization Rate, 6. / 9.	<u>16.19%</u>	<u>15.74%</u>
Total Rate, 8. / 9.	18.24%	18.92%

* Assumed to be a midyear payment.

** Total payroll is assumed to grow by 3.5% annually.

Note: 7/1/2019 values are from prior actuary's report.

Projected Actuarially Determined Contribution

	July 1, 2022	July 1, 2023
1. Normal Cost w/Admin. Expenses	\$805,000	\$833,000
2. Amortization of Unfunded Accrued Liability	<u>6,142,000</u> *	<u>6,142,000</u> *
3. Actuarially Determined Contribution	\$6,947,000	\$6,975,000
4. Total Estimated Payroll for Year	39,267,000 **	40,641,000 **
5. Actuarially Determined Contribution as a Percentage of Payroll:		
Normal Rate, 1. / 4.	2.05%	2.05%
Amortization Rate, 2. / 4.	<u>15.64%</u>	<u>15.11%</u>
Total Rate	17.69%	17.16%

* Assumed to be a midyear payment

** Total payroll is assumed to grow by 3.5% annually

Amortization of Unfunded Accrued Liability

Amortization of 7/1/2021 Transitional Liability

<u>Valuation Date</u>	<u>Amortization Period</u>	<u>Balance of Transitional UAL</u>	<u>Annual Amortization Payment</u> *
7/1/21	20	\$64,919,391	\$6,141,927
7/1/22	19	63,420,260	6,141,927
7/1/23	18	61,808,694	6,141,927
7/1/24	17	60,076,261	6,141,927
7/1/25	16	58,213,895	6,141,927
7/1/26	15	56,211,852	6,141,927
7/1/27	14	54,059,655	6,141,927
7/1/28	13	51,746,044	6,141,927
7/1/29	12	49,258,912	6,141,927
7/1/30	11	46,585,245	6,141,927
7/1/31	10	43,711,053	6,141,927
7/1/32	9	40,621,297	6,141,927
7/1/33	8	37,299,809	6,141,927
7/1/34	7	33,729,209	6,141,927
7/1/35	6	29,890,814	6,141,927
7/1/36	5	25,764,540	6,141,927
7/1/37	4	21,328,795	6,141,927
7/1/38	3	16,560,369	6,141,927
7/1/39	2	11,434,311	6,141,927
7/1/40	1	5,923,799	6,141,926
7/1/41	0	0	0

* Assumed to be a midyear payment

Solvency Test

(\$ in thousands)

Valuation Date	(1)	(2)	(3)	Actuarial Value of Assets	Portion of Accrued Liabilities Covered By Reported Assets		
	Active Member Contributions	Inactive Members	Active Members (Er Portion)		(1)	(2)	(3)
7/1/2021	\$9,899.4	\$136,228.2	\$56,333.2	\$137,541.4	100%	93.7%	0%
7/1/2019 *	9,030.3	129,470.6	57,660.8	107,542.2	100%	76.1%	0%
7/1/2017	7,649.3	111,606.0	56,878.2	99,949.2	100%	82.7%	0%
7/1/2015	6,413.5	100,579.3	54,789.0	95,046.1	100%	88.1%	0%
7/1/2013	5,389.9	94,635.8	56,731.9	87,436.9	100%	86.7%	0%
7/1/2012	4,219.2	85,394.7	62,405.0	84,501.4	100%	94.0%	0%

* Includes assumption changes.

Note: 7/1/2019 and earlier values are from the prior actuary's report.

Asset Values

Market Value (MVA) Reconciliation

As of July 1, 2020	\$110,296,974
Employer Contributions	5,796,943
Employer Contributions Receivable	1,479,057
Member Contributions	1,479,057
Benefit Payments	(13,395,880)
Administrative Expenses	(167,836)
Investment Return	<u>32,053,083</u>
As of June 30, 2021	\$137,541,398
Rate of Return (mid year cash flows)	29.71%

Actuarial Value (AVA)

As of June 30, 2021, restarted at market value	\$137,541,398
Rate of Return (mid year cash flows)	N/A
AVA - MVA on June 30, 2021	\$0
Percent AVA exceeds (is less than) MVA	0.00%

Note: Market Value reconciliation is from prior actuary's 7/1/2021 Draft Report.

Financial Statement Information

The information required under GASB Statements No. 67 and 68 will be issued in a separate report. The following is being shown for informational purposes only.

Schedule of Funding Progress (dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Valuation of Assets	(AAL) Actuarial Accrued Liability	(UAAL) Unfunded AAL	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
7/1/12	\$84,502	\$152,019	\$67,517	55.6%	\$32,890	205.3%
7/1/13	87,437	156,758	69,321	55.8%	\$31,882	217.4%
7/1/15	95,046	161,782	66,736	58.7%	\$32,481	205.5%
1/1/17	99,949	176,133	76,184	56.7%	\$34,093	223.5%
7/1/19 *	107,542	196,162	88,620	54.8%	\$37,153	238.5%
7/1/21	137,541	202,461	64,919	67.9%	\$36,656	177.1%

* Includes assumption changes.

Note: 7/1/2019 and prior values are from the prior actuary's report.

Number of Members as of July 1, 2021

Retired Members and Beneficiaries currently receiving benefits	659
Terminated Participants and Beneficiaries entitled to future benefits	273
Active Members	<u>679</u>
Total	1,611

Actuarial Methods and Assumptions

Actuarial Method:	
Valuation date	7/1/21
Actuarial cost method	Entry Age
Amortization method	Level Dollar, Closed
Remaining amortization period	20
Asset valuation method	Five year smoothed market value
Actuarial Assumptions:	
Investment rate of return	7.50%
Projected salary increases	3.50% - 6.50%
Inflation	3.00%
Cost-of-living adjustments	3.00% for Plan 4022 Level 1

Census Data

The City supplied a census of all participants as of July 1, 2021.

	July 1, 2021	July 1, 2019
Retirees and Beneficiaries:		
- Number	659	631
- Average age	68.11	67.25
- Annual benefits		
- Total	\$13,573,572	\$12,547,100
- Average	\$20,597	\$19,884
Deferred Vested:		
- Number	273	281
- Average age	49.49	48.60
- Annual benefits		
- Total	\$2,205,437	\$2,114,987
- Average	\$8,079	\$7,527
Actives:		
- Number	679	730
- Average age	42.83	42.50
- Average past service	10.12	10.20
- Total Payroll	\$36,656,048	\$37,153,135
- Average Payroll	\$53,985.34	\$50,895

Note: 7/1/2019 values are from prior actuary's report.

Active Data SummariesDistribution of Active Members By Age and Service Groups

Attained Age	Completed Years of Service									Count	Average Payroll
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Over		
Under 25	14	27	1	0	0	0	0	0	0	42	\$40,807
25 to 29	14	49	11	0	0	0	0	0	0	74	\$42,057
30 to 34	15	35	37	6	0	0	0	0	0	93	\$48,581
35 to 39	6	16	27	21	12	0	0	0	0	82	\$56,320
40 to 44	3	18	13	20	31	6	0	0	0	91	\$57,707
45 to 49	2	11	10	8	15	14	5	0	0	65	\$60,157
50 to 54	2	16	10	11	15	23	8	2	0	87	\$58,676
55 to 59	3	10	8	7	14	15	2	6	3	68	\$59,551
60 to 64	2	16	11	5	6	11	1	1	3	56	\$55,636
65 to 69	0	2	1	3	1	1	1	2	0	11	\$58,085
70 & Up	0	1	2	3	3	0	0	0	1	10	\$62,329
Total Count	61	201	131	84	97	70	17	11	7	679	\$53,985

Active Data Summaries (Continued)History of Active Member Valuation Data

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Compensation</u>	<u>Average Compensation</u>	<u>Percentage Increase</u>
7/1/21	679	\$36,656,048	\$53,985	6.1%
7/1/19	730	37,153,135	50,895	3.9%
7/1/17	696	34,093,042	48,984	3.9%
7/1/15	689	32,480,676	47,142	3.8%
7/1/14	702	31,881,508	45,415	-2.3%
7/1/13	686	31,881,509	46,475	0.0%
7/1/12	708	32,890,116	46,455	0.6%

Note: 7/1/2019 and earlier values are from the prior actuary's report.

Inactive Data Summaries July 1, 2021

Retired Members

<u>Attained Age</u>	<u>Number</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
50 - 54	12	\$ 494,415	\$ 41,201
55 - 59	83	2,000,354	24,101
60 - 64	147	3,214,748	21,869
65 - 69	136	2,888,344	21,238
70 - 74	99	1,829,557	18,480
75 - 79	62	1,088,570	17,558
80 - 84	43	764,734	17,785
85 - 89	20	329,380	16,469
90 & Over	3	166,419	55,473
Total	605	\$ 12,776,522	\$ 21,118

Disabled Members

<u>Attained Age</u>	<u>Number</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
50 - 54	2	\$ 40,107	\$ 20,054
55 - 59	2	43,565	21,783
60 - 64	3	48,762	16,254
65 - 69	4	108,313	27,078
70 - 74	2	35,601	17,800
75 - 79	1	24,543	24,543
80 - 84	1	14,458	14,458
85 - 89	1	9,171	9,171
90 & Over	0	-	-
Total	16	\$ 324,521	\$ 20,283

Inactive Data Summaries July 1, 2021 (Continued)Beneficiaries

<u>Attained Age</u>	<u>Number</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
Under 50	1	\$ 4,909	\$ 4,909
50 - 54	2	23,400	11,700
55 - 59	0	-	-
60 - 64	6	45,037	7,506
65 - 69	7	72,105	10,301
70 - 74	4	29,118	7,279
75 - 79	10	196,772	19,677
80 - 84	6	79,335	13,223
85 - 89	1	11,736	11,736
90 & Over	1	10,118	10,118
Total	38	\$ 472,529	\$ 12,435

Deferred Vesteds

<u>Attained Age</u>	<u>Number</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
Under 35	2	\$ 25,489	\$ 12,745
35 - 39	28	248,122	8,862
40 - 44	43	392,307	9,123
45 - 49	55	491,604	8,938
50 - 54	75	617,459	8,233
55 - 59	49	328,385	6,702
60 - 64	17	90,439	5,320
90 & Over	3	7,975	2,658
Total	272	\$ 2,201,781	\$ 8,095

Actuarial Assumptions and Methods

The assumptions and methods used in the valuation other than the changes made effective 7/1/2021 were selected by the former actuary and adopted by the Board following the most recent experience study for the 5-year period ending June 30, 2018. Methods that were changed with Board approval and assumptions that changed as of 7/1/2021 are noted with an asterisk.

Investment Rate of Return 7.5% per year, compounded annually, net of investment expenses.

Cost of Living Increases 3.0% per year for Plan 4022 Level 1 members; None for Consolidated Plan Members.

Wage Base Growth 3.5% per year for the Wage Base used to calculate covered compensation.

Administrative Expenses * Annual amount of 0.17% of payroll.

Salary Increases * The annual rates of salary increases are:

<u>Age</u>	<u>General Ees</u>	<u>Uniformed Officers</u>
18-30	4.60%	3.80%
31-39	4.25%	3.80%
40	4.25%	3.50%
41-70	4.00%	3.50%

Withdrawal *

The ultimate annual rates of withdrawal are:

<u>Age</u>	<u>General Ees</u>	<u>Uniformed Officers</u>
18-29	11.00%	8.00%
30	11.00%	5.00%
31-34	9.00%	5.00%
35	4.00%	5.00%
36-54	4.00%	3.00%

The select rates of withdrawal are:

<u>Service</u>	<u>General Ees</u>	<u>Uniformed Officers</u>
0	24.00%	22.00%
1	21.00%	10.00%
2	16.50%	10.00%
3	13.50%	9.00%
4	12.50%	8.00%

Actuarial Assumptions and Methods (Continued)

Retirement

The annual rates of retirement for employees not eligible for Rule of 80 are:

<u>Years of Service</u>	<u>General Ees</u>	<u>Uniformed Officers</u>	<u>4022 Plan Officers</u>
45-49	0.00%	0.00%	5.00%
50	0.00%	0.00%	12.00%
51-53	0.00%	0.00%	20.00%
54	0.00%	0.00%	60.00%
55	10.00%	20.00%	60.00%
56-59	5.00%	10.00%	60.00%
60	10.00%	100.00%	100.00%
61	10.00%	100.00%	100.00%
62-66	25.00%	100.00%	100.00%
67-69	25.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%

The annual rates of retirement for employees eligible for Rule of 80 are:

<u>Age Plus Service</u>	<u>General Ees</u>	<u>Uniformed Officers</u>
80	35.00%	40.00%
81	35.00%	30.00%
82+	20.00%	30.00%

Disability

Representative values of the annual rates of disablement are:

<u>Age</u>	<u>Rate</u>
20	0.025%
25	0.025%
30	0.025%
35	0.035%
40	0.070%
45	0.115%
50	0.185%
55	0.300%
60	0.450%

Mortality

The PubS.H-2010(B) Mortality Table projected to 2025 with projection scale MP-2018, set forward 3 years for males and 4 years for females.

Percent Married

100% of active Members with wives assumed to be 3 years younger than husbands.

Form of Payment

All retiring Members are assumed to elect a life annuity. Optional forms are actuarially equivalent to the life annuity, and therefore have an insignificant impact.

Actuarial Assumptions and Methods (Continued)

Actuarial Cost Method	Entry Age Normal Level Percentage of Pay.
Asset Valuation Method *	<p>The actuarial value of assets recognizes a portion of the difference between the market value of assets and expected actuarial value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected actuarial value.</p> <p>The actuarial value was reset at the market value as of 7/1/2021.</p>
Amortization of Unfunded Actuarial Accrued Liability *	<p>UAAL is amortized over closed periods using level dollar payments. The amortization period is 15 years for Gains and Losses, 15 years for Plan Changes, and 30 years for Assumption Changes.</p> <p>The amortization of UAAL was restarted at 20 years effective 7/1/2021.</p>
Changes in Actuarial Assumptions and Methods since the Prior Valuation	<ol style="list-style-type: none"> The administrative expense load was changed from 0.50% to 0.17% of payroll based on recent plan experience. The actuarial value of assets was reset at market value at 7/1/2021, and changed from 10% to 20% per year recognition of the difference between market value and expected actuarial value. The amortization of UAAL was reset at 20 years at 7/1/2021, and changed from level percentage of pay to level dollar amount. The salary scale was changed to an age based table from a service based one. It is roughly equivalent. Turnover was changed from an service related assumption to an age based select and ultimate table.
Assets and Census Data	The Enrolled Actuary used asset data supplied by the City. The census data was gathered by the City and presumed correct by the Actuary.

Summary of Principal Plan Provisions

Eligibility for Membership	All employees of the City of Marietta.
Membership Service Credit	Full time service for all periods of employment with the City of Marietta subject to the break in service rules of the plan.
Final Average Earnings	A Member's average monthly compensation for the highest 3 consecutive years if hired before January 1, 2009, and highest 5 consecutive years if hired on or after January 1, 2009. For elected officials, amount is based on the plan's average salary.
Covered Compensation	Average Social Security Wage Base by year of birth as published annually by the IRS, assuming the Member was born 10 years earlier than his actual year of birth.
Accrued Benefit	The monthly amount of retirement earned by a Member computed based on his Membership Service Credit and Final Average Earnings.
Normal Retirement Benefit	
Eligibility	Age 65 with 10 years of service if hired on or after January 1, 2009. The service requirement is 7 years if hired between 3/18/2008 and 12/31/2008, and 5 years if hired before 3/18/2008.
Benefit	Monthly benefit of 2.1% of Final Average Earnings, multiplied by Membership Service Credit capped at 35 years.
Early Retirement Benefit	
Eligibility	Age 55 with 10 years of service. The service requirement is 5 years if hired before 3/18/2008 and 7 years if hired between 3/18/2008 and 12/31/2008.
Benefit	Accrued Benefit reduced by 5.004% per year (3% per year if hired prior to 1/1/2009) for each year benefits commence prior to age 65. Unreduced if age plus service is at least 80, subject to a minimum age requirement of 55 if hired on or after 3/18/2008.
Plan 4022 Level 1 Normal Retirement Benefit	
Eligibility	Age 55 with 5 years of service.
Benefit	Monthly benefit is greater of (a) and (b): (a). 1.33% of final average earnings multiplied by Membership Service Credit. (b). 1.1% of final average earnings (based on highest 36 consecutive months),

Summary of Principal Plan Provisions (continued)

Disability Retirement Benefit

Eligibility	1 day of service if injury is work-related or 1 year if injury is non-work-related.
Benefit	The larger of the Accrued Benefit at disability and 50% of average monthly earnings in the prior year, offset by Workers' Compensation benefits, if any.

Death Benefit

Eligibility	Death in active service.
Benefit	Return of Member Contributions without interest.

Plan 4022 Death Benefit

Eligibility	Death in active service.
Benefit	Benefit payable to beneficiary based on Plan 4022 Tables applied to Accrued Benefit.

Optional Forms of Benefit

Options	(a). 100%, 75%, or 50% joint and survivor annuity. (b). Joint and survivor annuity with a pop-up provision. (b). Social Security leveling option
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Cost of Living Increases

Eligibility	Provided to Plan 4022 Level 1 Members only.
Amount	Benefit adjusted by the CPI increase capped at 4% annually following commencement.

Member Contributions

4% of compensation for Members other than Plan 4022.
Upon termination of employment, the Member may elect to receive these contributions without interest.

Medium of Funding

Benefits are funded through contributions to a trust.

Changes in Plan Provisions Since the Prior Valuation

There were no plan provision changes from the prior valuation. .

Risk Assessment

Actuarial Standard of Practice (ASOP) No. 51 issued by the Actuarial Standards Board (ASB) addresses risk assessment and disclosure associated with pension plan funding.

In this section we will analyze investment risk and interest rate sensitivity, which are two primary measures of risk.

Investment Risk

The Asset Volatility Ratio (AVR) is defined as the market value of assets divided by covered payroll. The AVR measures one of the most significant risks in funding a pension plan. (See below.)

(\$ in thousands)

Valuation Date	Market Value of Assets	Covered Payroll	Asset Volatility Ratio
7/1/2015	\$97,315	\$32,481	3.00
7/1/2017	\$102,909	\$34,093	3.02
7/1/2019	\$110,837	\$37,153	2.98
7/1/2021	\$137,541	\$36,656	3.75

Note: 7/1/2019 and earlier values are from the prior actuary's report.

Greater AVR's will result in greater funding volatility for a given percentage deviation in actual investment return versus expected investment return.

Investment Return Assumption Sensitivity

Sensitivity tests can measure the potential impact of a change in an assumption on the plan's funding. The table below shows the impact of a 1% increase and a 1% decrease in the investment return assumption on key plan funding measures.

(\$ in thousands)

At July 1, 2021	Current Discount Rate (7.50%)	+1 % Discount Rate (8.50%)	-1 % Discount Rate (6.50%)
Plan Normal Rate	2.05%	0.60%	3.48%
Accrued Liability	\$202,461	\$183,606	\$219,113
Unfunded Liability	\$64,919	\$46,065	\$81,572
Funded Ratio	67.93%	74.91%	62.77%

Note: 7/1/2019 and earlier values are from the prior actuary's report.

Actuarial Certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The actuarial assumptions and methods employed in the development of the recommended contribution have been selected by the Actuary, with the concurrence of the plan sponsor. Accounting Standards require the use of assumptions each of which is reasonable.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, WRS performed no analysis of the potential range of such future differences.

The independent actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, and certifies that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the Actuarial Calculations were performed by qualified actuaries based on current provisions and on actuarial assumptions that are internally consistent and reasonable based on the actual experience of the Plan.

A handwritten signature in black ink, appearing to read 'Clark H. Weeks', is written over a horizontal line.

Clark H. Weeks, A.S.A., E.A.

WRS

June 2022