

**BOND PRICING**

**City of Manitowoc (AA-/AA BAM Insured)  
Taxable General Obligation Promissory Notes - FINAL  
Callable 2/1/2028 or any Date Thereafter**

<b>Bond Component</b>	<b>Maturity Date</b>	<b>Amount</b>	<b>Rate</b>	<b>Yield</b>	<b>Price</b>
Serial Bond:					
	02/01/2021	175,000	1.650%	1.650%	100.000
	02/01/2022	185,000	1.750%	1.750%	100.000
	02/01/2023	190,000	1.850%	1.850%	100.000
	02/01/2024	195,000	2.000%	2.000%	100.000
	02/01/2025	200,000	2.100%	2.100%	100.000
	02/01/2026	200,000	2.200%	2.200%	100.000
	02/01/2027	205,000	2.300%	2.300%	100.000
	02/01/2028	210,000	2.400%	2.400%	100.000
	02/01/2029	215,000	2.500%	2.500%	100.000
	02/01/2030	225,000	2.600%	2.600%	100.000
		2,000,000			

Dated Date	05/05/2020	
Delivery Date	05/05/2020	
First Coupon	02/01/2021	
Par Amount	2,000,000.00	
Original Issue Discount		
Production	2,000,000.00	100.000000%
Underwriter's Discount	(20,000.00)	(1.000000%)
Purchase Price	1,980,000.00	99.000000%
Accrued Interest		
Net Proceeds	1,980,000.00	

**SOURCES AND USES OF FUNDS**

**City of Manitowoc (AA-/AA BAM Insured)  
Taxable General Obligation Promissory Notes - FINAL  
Callable 2/1/2028 or any Date Thereafter**

Dated Date                   05/05/2020  
Delivery Date               05/05/2020

**Sources:**

Bond Proceeds:	
Par Amount	2,000,000.00
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	2,000,000.00
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**Uses:**

Project Fund Deposits:	
Project Fund	1,957,916.11
Cost of Issuance:	
Q&B Bond Counsel	9,000.00
Q&B Disclosure Counsel	5,500.00
S&P Rating	2,430.00
Baird Official Statement & Clearing	720.00
Associated Trust Fiscal Agent	325.00
Day Loan Fee	55.56
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	18,030.56
Underwriter's Discount:	
Underwriter's Discount	20,000.00
Other Delivery Date Expenses:	
Bond Insurance - BAM	4,053.33
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	2,000,000.00
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**BOND DEBT SERVICE**

**City of Manitowoc (AA-/AA BAM Insured)  
Taxable General Obligation Promissory Notes - FINAL  
Callable 2/1/2028 or any Date Thereafter**

<b>Period Ending</b>	<b>Principal</b>	<b>Coupon</b>	<b>Interest</b>	<b>Debt Service</b>	<b>Annual Debt Service</b>
05/05/2020					
02/01/2021	175,000	1.650%	31,860.89	206,860.89	
08/01/2021			20,116.25	20,116.25	226,977.14
02/01/2022	185,000	1.750%	20,116.25	205,116.25	
08/01/2022			18,497.50	18,497.50	223,613.75
02/01/2023	190,000	1.850%	18,497.50	208,497.50	
08/01/2023			16,740.00	16,740.00	225,237.50
02/01/2024	195,000	2.000%	16,740.00	211,740.00	
08/01/2024			14,790.00	14,790.00	226,530.00
02/01/2025	200,000	2.100%	14,790.00	214,790.00	
08/01/2025			12,690.00	12,690.00	227,480.00
02/01/2026	200,000	2.200%	12,690.00	212,690.00	
08/01/2026			10,490.00	10,490.00	223,180.00
02/01/2027	205,000	2.300%	10,490.00	215,490.00	
08/01/2027			8,132.50	8,132.50	223,622.50
02/01/2028	210,000	2.400%	8,132.50	218,132.50	
08/01/2028			5,612.50	5,612.50	223,745.00
02/01/2029	215,000	2.500%	5,612.50	220,612.50	
08/01/2029			2,925.00	2,925.00	223,537.50
02/01/2030	225,000	2.600%	2,925.00	227,925.00	
08/01/2030					227,925.00
	2,000,000		251,848.39	2,251,848.39	2,251,848.39

**BOND SUMMARY STATISTICS**

**City of Manitowoc (AA-/AA BAM Insured)  
Taxable General Obligation Promissory Notes - FINAL  
Callable 2/1/2028 or any Date Thereafter**

Dated Date	05/05/2020
Delivery Date	05/05/2020
First Coupon	02/01/2021
Last Maturity	02/01/2030
Arbitrage Yield	2.349353%
True Interest Cost (TIC)	2.509722%
Net Interest Cost (NIC)	2.500266%
All-In TIC	2.734862%
Average Coupon	2.316321%
Average Life (years)	5.436
Weighted Average Maturity (years)	5.436
Par Amount	2,000,000.00
Bond Proceeds	2,000,000.00
Total Interest	251,848.39
Net Interest	271,848.39
Bond Years from Dated Date	10,872,777.78
Bond Years from Delivery Date	10,872,777.78
Total Debt Service	2,251,848.39
Maximum Annual Debt Service	227,925.00
Average Annual Debt Service	231,222.31

Bond Component	Par Value	Price	Average Coupon	Average Life	Average Maturity Date	Duration	PV of 1 bp change
Serial Bond	2,000,000.00	100.000	2.316%	5.436	10/11/2025	5.072	1,000.05
	2,000,000.00			5.436			1,000.05

	TIC	All-In TIC	Arbitrage Yield
Par Value	2,000,000.00	2,000,000.00	2,000,000.00
+ Accrued Interest			
+ Premium (Discount)			
- Underwriter's Discount	(20,000.00)	(20,000.00)	
- Cost of Issuance Expense		(18,030.56)	
- Other Amounts		(4,053.33)	(4,053.33)
Target Value	1,980,000.00	1,957,916.11	1,995,946.67
Target Date	05/05/2020	05/05/2020	05/05/2020
Yield	2.509722%	2.734862%	2.349353%

**PROOF OF ARBITRAGE YIELD**

**City of Manitowoc (AA-/AA BAM Insured)  
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<b>Date</b>	<b>Debt Service</b>	<b>PV Factor</b>	<b>Present Value to 05/05/2020 @ 2.3493526610%</b>
02/01/2021	206,860.89	0.982890125	203,321.53
08/01/2021	20,116.25	0.971478398	19,542.50
02/01/2022	205,116.25	0.960199166	196,952.45
08/01/2022	18,497.50	0.949050889	17,555.07
02/01/2023	208,497.50	0.938032049	195,577.34
08/01/2023	16,740.00	0.927141141	15,520.34
02/01/2024	211,740.00	0.916376681	194,033.60
08/01/2024	14,790.00	0.905737201	13,395.85
02/01/2025	214,790.00	0.895221249	192,284.57
08/01/2025	12,690.00	0.884827391	11,228.46
02/01/2026	212,690.00	0.874554210	186,008.93
08/01/2026	10,490.00	0.864400304	9,067.56
02/01/2027	215,490.00	0.854364289	184,106.96
08/01/2027	8,132.50	0.844444796	6,867.45
02/01/2028	218,132.50	0.834640472	182,062.21
08/01/2028	5,612.50	0.824949979	4,630.03
02/01/2029	220,612.50	0.815371998	179,881.25
08/01/2029	2,925.00	0.805905220	2,357.27
02/01/2030	227,925.00	0.796548355	181,553.28
	<b>2,251,848.39</b>		<b>1,995,946.67</b>

**Proceeds Summary**

Delivery date	05/05/2020
Par Value	2,000,000.00
Arbitrage expenses	(4,053.33)
Target for yield calculation	1,995,946.67

## FORM 8038 STATISTICS

**City of Manitowoc (AA-/AA BAM Insured)  
Taxable General Obligation Promissory Notes - FINAL  
Callable 2/1/2028 or any Date Thereafter**

Dated Date 05/05/2020  
Delivery Date 05/05/2020

Bond Component	Date	Principal	Coupon	Price	Issue Price	Redemption at Maturity
Serial Bond:						
	02/01/2021	175,000.00	1.650%	100.000	175,000.00	175,000.00
	02/01/2022	185,000.00	1.750%	100.000	185,000.00	185,000.00
	02/01/2023	190,000.00	1.850%	100.000	190,000.00	190,000.00
	02/01/2024	195,000.00	2.000%	100.000	195,000.00	195,000.00
	02/01/2025	200,000.00	2.100%	100.000	200,000.00	200,000.00
	02/01/2026	200,000.00	2.200%	100.000	200,000.00	200,000.00
	02/01/2027	205,000.00	2.300%	100.000	205,000.00	205,000.00
	02/01/2028	210,000.00	2.400%	100.000	210,000.00	210,000.00
	02/01/2029	215,000.00	2.500%	100.000	215,000.00	215,000.00
	02/01/2030	225,000.00	2.600%	100.000	225,000.00	225,000.00
		2,000,000.00			2,000,000.00	2,000,000.00

	Maturity Date	Interest Rate	Issue Price	Stated Redemption at Maturity	Weighted Average Maturity	Yield
Final Maturity	02/01/2030	2.600%	225,000.00	225,000.00		
Entire Issue			2,000,000.00	2,000,000.00	5.4364	2.3494%

Proceeds used for accrued interest	0.00
Proceeds used for bond issuance costs (including underwriters' discount)	42,083.89
Proceeds used for credit enhancement	4,053.33
Proceeds allocated to reasonably required reserve or replacement fund	0.00