AGENDA

Special Meeting of Council

November 21, 2023
9:00 am
Municipal Operations Centre
408 James Street South, St. Marys
YouTube Link - https://www.youtube.com/channel/UCzuUpFqxcEl8OG-dOYKteFQ

Pages

1. CALL TO ORDER

2. DECLARATION OF PECUNIARY INTEREST

3. AMENDMENTS AND APPROVAL OF AGENDA

RECOMMENDATION
THAT the November 21, 2023 special meeting of Council agenda be accepted as presented.

4. SPECIAL MATTERS OF COUNCIL

4.1 2024 Budget Introduction

4.1.1 Chief Administrative Officer Comments

See budget introductory letter in budget package for further details

4.1.2 Director of Corporate Services / Treasurer Comments 5

4.2 Review Draft Capital Budget

4.2.1 COR 57-2023 Capital Plan Overview 21

RECOMMENDATION
THAT COR 57-2023 Capital Plan Overview report be received.

4.2.2 COR 58-2023 Rate-funded Capital Financing 29

RECOMMENDATION
THAT COR 58-2023 Rate-funded Capital Financing report be received; and

THAT Council consider a one-time transfer of $600,000 from the General Capital reserve to the Landfill reserve; and

THAT Council consider approving the following short term promissory notes for the construction financing of the Wastewater Treatment Plan upgrades; to be funded by the wastewater reserve and development charges:

1. Promissory Note – up to $2,600,000 from PUC Fund, Interest rate 5% per annum, accrued at time of draw, interest paid quarterly, to be converted to term loan in 2024 (details to be confirmed at time of conversion)
2. Promissory Note – up to $2,000,000 from the Water reserve, Interest rate 5% per annum, accrued at time of draw, interest paid quarterly, to be partly converted to term loan in 2024 (details to be confirmed at time of conversion)
3. Promissory Note – up to $4,400,000 from general reserves, Interest rate 5% per annum, accrued at time of draw, interest paid quarterly.

THAT Council direct the Director of Corporate Services/Treasurer to report back in the 3rd quarter of 2024 to confirm and receive final Council approval to secure long-term debt as described within COR 58-2023 report.

4.2.3 2024 Capital Projects Review

4.2.3.1 DCS 53-2023 Aquatics Centre Natatorium Report 34

DEI Consulting Engineers to attend meeting as delegation

RECOMMENDATION

THAT DCS 53-2023 Aquatics Centre Natatorium report be received; and

THAT Capital project #41 Aquatics Centre Renovation be approved to be included in the 2024 capital budget with a net total budget cost of $1,675,000.

4.2.3.2 Review of List of 2024 Capital Projects

4.3 Review Draft Operating Budget

4.3.1 Administration

4.3.2 Building and Development

4.3.3 Community Services

4.3.4 Corporate Services

4.3.5 Fire

4.3.6 Human Resources

4.3.7 Public Works

4.3.8 Self-Funded (water, wastewater, and landfill)

4.3.9 Library

4.4 External Transfer Requests

Hospital Foundation

UTRCA

5. PUBLIC INPUT

Public input received by the Clerks Department prior to 4:30pm on the day prior to the meeting will be read aloud during this portion of the agenda.

Submissions will be accepted via email at clerksoffice@town.stmarys.on.ca or in the drop box at Town Hall, 175 Queen Street East, lower level.

6. UPCOMING MEETINGS

*All meetings are open to the public to attend in-person and may be live streamed to the Town's YouTube channel

2024 Budget Meetings

December 5, 2023 - 9:00 am, Special Meeting of Council (budget), Municipal Operations Centre Boardroom

7. BY-LAWS 54

RECOMMENDATION
THAT By-Law 120-2023, being a by-law to confirm the proceedings of the November 21, 2023 special meeting of Council, be read a first, second and third time; and be finally passed by Council, and signed and sealed by the Mayor and the Clerk.

8. ADJOURNMENT

RECOMMENDATION
THAT this special meeting of Council be adjourned at _____ pm.

2024 Draft Budget
Preliminary Information

2024 Major Budget Factors

Major Budget Factors:	Net Budget Impact	Comments
Wages & Benefits	$611,000	Includes estimated cost of living increase, staff step increases, and 14% increase in health benefit premiums
External Transfers	$304,000	Actuals to be determine, estimates based on available information from outside boards, partners, and agencies. Incudes Conservation Authority, Public Health Unit, Stratford Social Services, and County EMS
Bill 23 – Development Charge discounts	$52,000	Adjustment for phase-in of new development charge per Provincial Bill 23
Childcare Funding adjustment	-$150,000	New funding agreement, adjusted budget to reflect agreement revenue being received
Investment Income	-$90,000	Higher central bank interest rates will secure higher returns in 2024 and beyond for Town's fixed income investment portfolio
Other Operating Changes	-$159,000	Staff detailed review of revenue and expenditures to highlight more accurate estimates
Subtotal – Major Factors	**$568,000**	Estimated increase required to provide status quo service levels to community

Suggested Service Level Changes	Net Budget Impact	Comments
Convert Temp Clerks staff to Permanent	$53,000	Approved by Council in 2023 to assist with the Town's data governance, retention, and security strategies
PC Connect	$17,000	PC Connect contributions from Municipal partners now required – Town budgeted this increase in 2023; therefore 2024 impact reduced. Total Town commitment for 2024 = $160,000
New Childcare supervisor position	$0	Position to be funded with increased recognized revenue from Childcare funding agreement – estimated cost = $105,000
Increase Community Improvement Plan (CIP) grant	$25,000	CIP success growing, recommendation to increase the funding from $50k to $75k annually
Affordable Housing Initiatives	$15,000	Recommendation to increase annual Affordable Housing funds to $100k; recommend being partly funded by increased revenues ($85,000) from the PUC reserve fund
Added small events	$10,000	Tourism Events staff working on adding more value to small events throughout the year
Capital Reserve Funding	$160,000	As per policy, increased capital reserve funding by 5%, plus 25% of growth to ensure sustainable funding available for future capital asset needs
Subtotal – Service level changes	**$280,000**	Estimated increase for service level enhancements required to meet strategic priorities
Total Draft Budget Change	**$848,000**	Total estimated municipal levy increase required in 2024

What is the Draft Budget Impact?

TOWN OF ST. MARYS

2024 DRAFT BUDGET - October 31, 2023

		2023	2024	% Increase	$ Increase
	Total Tax Levy	14,066,922	14,915,055	**6.03%**	**$848,133**
1	Estimated 2023 Growth	190,000			
	Adjusted Tax Levy	14,256,922	14,915,055	**4.62%**	**$658,133**
	TOTAL MUNICIPAL BURDEN ON RESIDENTIAL DWELLING				
2	**Median Municipal Tax - Residential Dwelling**	3,430.05	3,588.39	**4.62%**	**$158**
	Wheelie Bin	138.16	144.03	**4.25%**	**$6**
3	**Education Tax**	400.86	400.86	**0.00%**	**$0**
	Total - Property Tax bill	**3,969.07**	**4,133.28**	**4.14%**	**$164**
4	**Water**	442.08	444.29	**0.50%**	**$2**
4	**Wastewater**	467.76	486.47	**4.00%**	**$19**
	Total - Utility bill	**909.84**	**930.76**	**2.30%**	**$21**
	TOTAL MUNICIPAL BURDEN	**4,878.91**	**5,064.04**	**3.79%**	**$185**

1 ***Growth estimated - final will be known in early January***

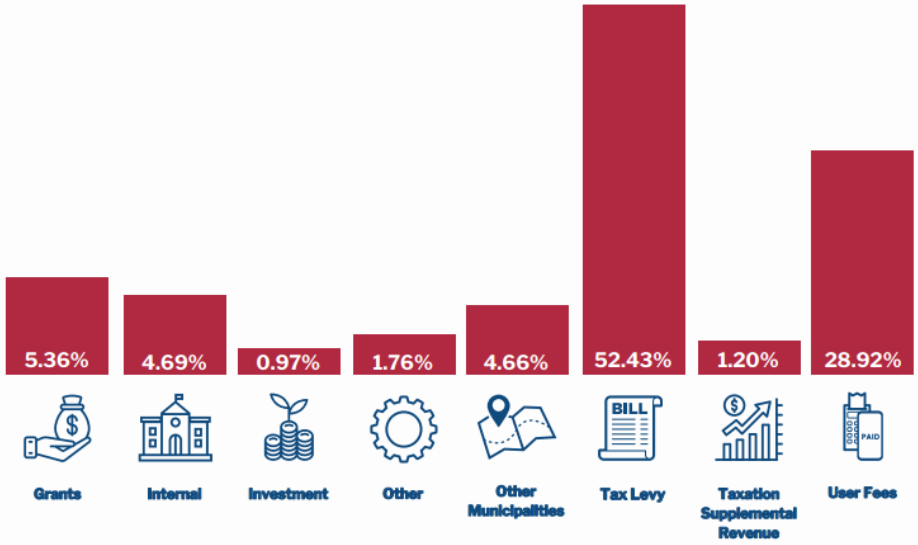
2 ***Municipal Tax (does not include education tax) based on Median Assessment of $262,000***

3 ***Education rates prescribed by Province - To be Confirmed***

4 ***Based on average use of 13 cubic meters per month***

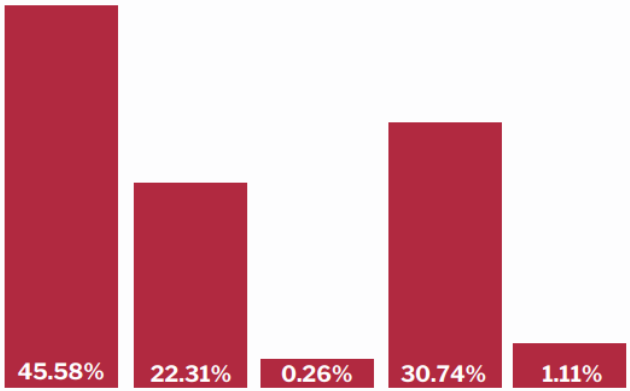
Revenue

Where does the money come from? (Operating)



Revenue - Capital

Where does the money come from? (2024 Capital)



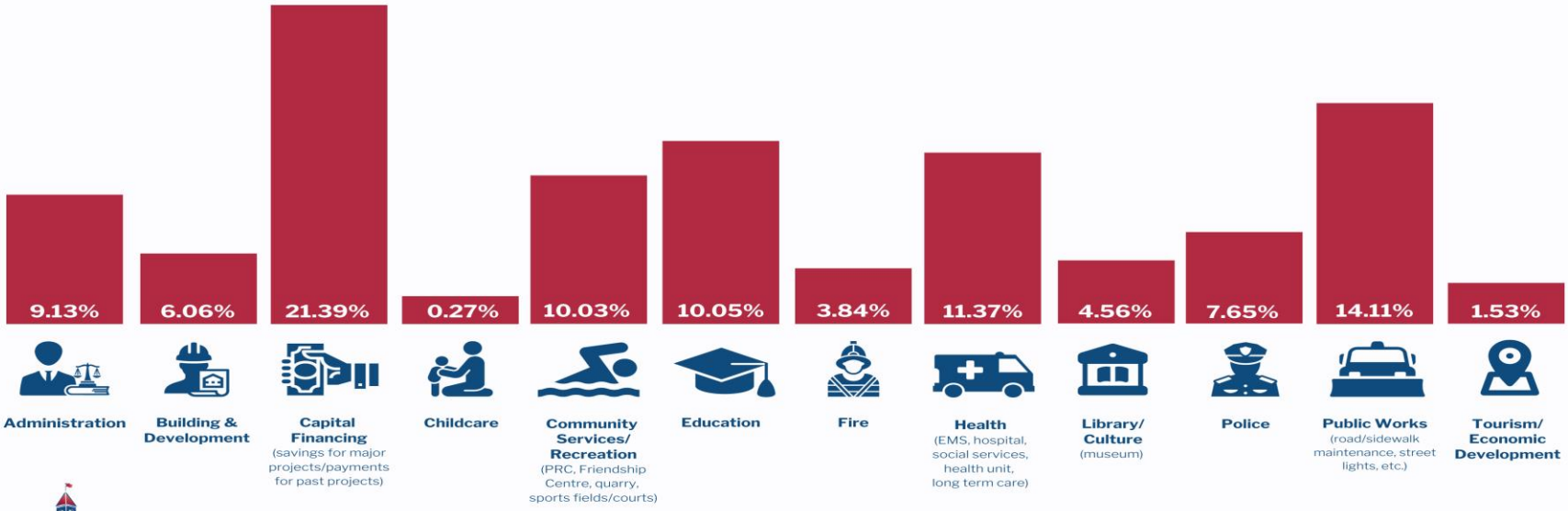
Expenditures

ONTARIO CANADA ST. MARYS

How are your taxes spent?

The taxes you pay support the services delivered by the municipality.

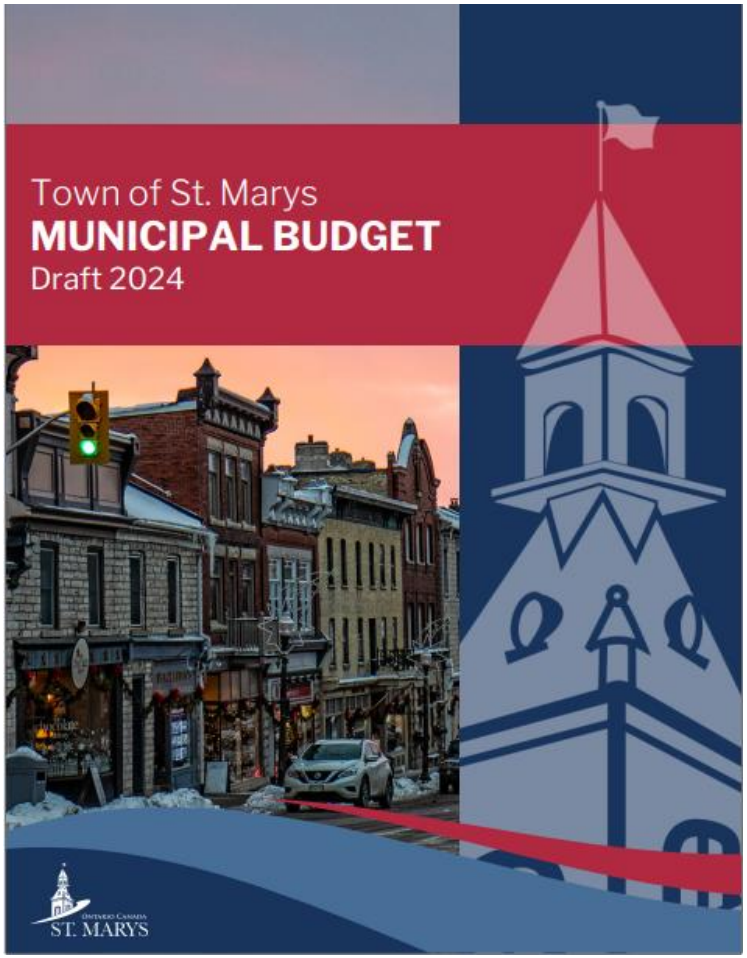
Different amounts are allocated to specific projects/departments based on the annual budget. The chart below shows how much of your taxes are allocated to each area/service.



ONTARIO CANADA ST. MARYS

Note: Water/wastewater and garbage/recycling are included in the budget but are not paid through property taxes. These fees are paid separately.

Operating Items to confirm:



- Shared Services final budget requests
- Stratford Police final budget request
- UTRCA final budget request
- OCIF Grant
- 2023 Assessment Growth

COR 57-2023 Capital Plan Overview Report

2024 DRAFT CAPITAL OVERVIEW

Non-Residential Construction Price Index

Construction Price Index - Toronto - Non-Residential building										
https//www.150.statcan.gc.ca										
	2019		2020		2021		2022		2023	
Quarter	Index	YR/YR %	Index	YR/YR %	Index	YR/YR %	Index	YR/YR %	Index	YR/YR %
1	107.4	5.19%	110.6	2.98%	112.1	1.36%	134.2	19.71%	150.6	12.22%
2	108.3	4.03%	111.1	2.59%	119.9	7.92%	140.9	17.51%	152.3	8.09%
3	109.2	3.31%	111.7	2.29%	125	11.91%	144.5	15.60%	154	6.57%
4	109.7	2.91%	112.1	2.19%	129.3	15.34%	148.1	14.54%		
Ann Avg	**108.7**	**3.86%**	**111.4**	**2.51%**	**121.6**	**9.13%**	**141.9**	**16.84%**	**152.3**	**8.96%**
Ann Avg. Qtr 1 - 3		4.18%		2.62%		7.06%		17.61%		8.96%

Impacts the following type of Capital Works:

- ❑ Building Renovations/large maintenance
- ❑ Infrastructure work
- ❑ Heavy Equipment (plow trucks, fire trucks, etc.)

NR(CPI) – What does this Mean?

Towns Infrastructure Assets:

	2018	2022
Replacement Value	$219,000,000	$296,000,000
Increase - $	$77,000,000	
Increase - %	35.16%	

Is the Town Investing Enough in Capital

TAX FUNDED	Grant Funding	Reserve Transfers	Total Funding Available	Average Annual Investment Required	Annual (Deficit)/Surplus	
2016 AMP	$ 603,000	$ 2,285,000	$ 2,888,000	$ 3,435,000	-547,000	**84.08%**
2018 AMP Update	$ 606,936	$ 2,209,694	$ 2,816,630	$ 3,486,057	-669,427	**80.80%**
2022 Estimate	$ 1,090,000	$ 2,638,000	$ 3,728,000	$ 4,453,550	-725,550	**83.71%**

RATE FUNDED (Water and Wastewater)	Grant Funding	Rates to Capital	Total Funding Available	Average Annual Investment Required	Annual (Deficit)/Surplus	
2016 AMP	$ -	$ 488,000	$ 488,000	$ 923,000	-435,000	52.87%
2018 AMP Update		$ 522,046	$ 522,046	$ 939,467	-417,421	55.57%
2022 Estimate		$ 1,686,137	$ 1,686,137	$ 1,518,223	167,914	111.06%

2024 Asset Management Continuous Improvement

5% Increase to Capital Reserve Transfer	• $112,792
25% of net growth allocated to AMP	• $47,500
Investment Returns for Capital Reserves	• $300,000
Debt payments to AMP once matured	• 2028 - $393,000 • 2029 - $876,500

10 Year Capital Plan

10 Year Capital Expenditures

Row Labels	Sum of 2024	Sum of 2025	Sum of 2026	Sum of 2027	Sum of 2028	Sum of 2029	Sum of 2030	Sum of 2031	Sum of 2032
Administration	969,459.00	110,000.00		80,000.00	75,000.00	80,000.00	226,000.00	80,000.00	75,000.00
Community Services	1,103,000.00	964,500.00	407,500.00	414,000.00	2,619,000.00	579,000.00	1,051,000.00	272,000.00	134,000.00
Corporate Services	340,000.00	55,000.00	55,000.00	92,730.00	305,000.00	305,000.00	55,000.00	555,000.00	805,000.00
Facilities	443,000.00	264,000.00	3,011,500.00	2,549,500.00	232,000.00	152,000.00	131,000.00	762,000.00	216,000.00
Fire	83,000.00	25,000.00	11,000.00	10,000.00	717,000.00	18,000.00	22,000.00	25,000.00	11,000.00
Fleet	1,146,000.00	55,000.00	310,000.00	595,000.00	750,000.00	175,000.00	498,000.00	200,000.00	205,000.00
Library									
Planning		62,400.00					90,000.00		
Roads	2,946,000.00	1,680,000.00	621,000.00	2,018,000.00	2,975,600.00	4,484,000.00	2,844,000.00	2,001,200.00	1,242,300.00
SAN	9,365,513.00	1,735,000.00	90,000.00	670,000.00	2,862,666.67	4,232,666.67	3,237,666.67	750,000.00	500,000.00
Waste	415,000.00	120,000.00	3,925,000.00		25,000.00		25,000.00	1,250,000.00	525,000.00
Water	670,000.00	1,585,000.00	1,365,000.00	545,000.00	130,000.00	1,148,000.00	602,000.00	370,000.00	515,000.00
Grand Total	**17,480,972.00**	**6,655,900.00**	**9,796,000.00**	**6,974,230.00**	**10,691,266.67**	**11,173,666.67**	**8,781,666.67**	**6,265,200.00**	**4,228,300.00**

Includes 2023 Carryforward

10 Year Capital Funding Sources

Total $82 Million

Row Labels	Sum of 2024	Sum of 2025	Sum of 2026	Sum of 2027	Sum of 2028	Sum of 2029	Sum of 2030	Sum of 2031	Sum of 2032
Donations	25,000.00								
Government Grants	1,905,000.00	500,000.00	3,000,000.00	850,000.00	2,538,000.00	1,138,000.00	970,000.00	720,000.00	
Res Fds - Dev Charge	5,015,000.00		1,324,000.00	598,700.00	2,753,333.33	4,640,333.33	4,015,833.33	1,210,200.00	185,300.00
Reserve - Fire	83,000.00	25,000.00	11,000.00	10,000.00	717,000.00	18,000.00	22,000.00	25,000.00	11,000.00
Reserve - General Cap	2,771,459.00	1,375,900.00	2,416,000.00	2,556,230.00	1,723,000.00	797,000.00	1,327,000.00	1,179,000.00	1,241,000.00
Reserve - Landfill	415,000.00	120,000.00	950,000.00		25,000.00		25,000.00	1,250,000.00	525,000.00
Reserve - Police		80,000.00		80,000.00		80,000.00		80,000.00	
Reserve - PW Equipm	1,146,000.00	55,000.00	55,000.00	595,000.00	695,000.00	175,000.00	498,000.00	200,000.00	205,000.00
Reserve - Roads	1,045,000.00	1,180,000.00	585,000.00	1,098,000.00	1,762,600.00	1,460,000.00	756,500.00	481,000.00	1,046,000.00
Reserve - Wastewater	4,365,513.00	1,735,000.00	90,000.00	670,000.00	347,333.33	1,717,333.33	722,333.33	750,000.00	500,000.00
Reserve - Water	670,000.00	1,585,000.00	1,365,000.00	516,300.00	130,000.00	1,148,000.00	445,000.00	370,000.00	515,000.00
Developer	40,000.00								
Grand Total	**17,480,972.00**	**6,655,900.00**	**9,796,000.00**	**6,974,230.00**	**10,691,266.67**	**11,173,666.67**	**8,781,666.67**	**6,265,200.00**	**4,228,300.00**

Capital Reserve Balance Continuity Schedule

Year	Fire	General Capital	Landfill	Police	PW Equipment	Roads	Wastewater	Water	DCs	Total
2023	(154,292)	4,687,945	260,459	88,000	1,094,616	511,535	89,061	2,477,370	2,638,697	**11,693,390**
2024	(83,292)	3,682,281	12,710	118,000	284,220	333,492	180,139	2,694,966	3,045,605	**10,268,122**
2025	47,708	4,150,063	54,474	68,000	546,746	59,051	(863,813)	2,052,514	3,332,312	**9,447,055**
2026	194,708	2,803,888	198,835	98,000	843,860	410,101	(276,751)	1,633,061	2,458,264	**8,363,967**
2027	344,708	2,256,358	383,139	48,000	639,242	318,682	(181,325)	2,059,223	2,288,636	**8,156,664**
2028	(210,292)	2,536,860	550,051	78,000	320,922	(9,820)	303,058	2,863,625	(23,377)	**6,409,026**
2029	(64,292)	4,225,880	750,393	28,000	524,716	485,623	(506,645)	2,680,728	692,562	**8,816,965**
2030	79,708	5,970,084	933,044	58,000	427,406	875,895	(285,139)	3,193,740	(3,383,691)	**7,869,048**
2031	222,708	7,955,171	(105,508)	8,000	641,533	1,602,731	(19,175)	3,790,116	(4,627,362)	**9,468,213**
2032	381,708	9,977,792	(434,117)	38,000	872,711	1,832,443	569,349	4,256,361	(4,823,528)	**12,670,720**

Fire

Landfill

Wastewater

Development Charges

Next Steps

- November 21, 2023
  - ✓ Capital
- December 5, 2023
  - ✓ Operating
- January 9, 2024
  - ✓ Public Meeting
- January 23, 2024
  - ✓ Final Budget for Council consideration

Questions

FORMAL REPORT

To:	Mayor Strathdee and Members of Council
Prepared by:	André Morin, Director of Corporate Services / Treasurer
Date of Meeting:	21 November 2023
Subject:	**COR 57-2023 Capital Plan Overview**

PURPOSE

To highlight the Town's long-term capital plan and the funding sources associated with our capital plan: reserves, debt financing, user fees, and government grants.

RECOMMENDATION

THAT COR 57-2023 Capital Plan Overview report be received.

BACKGROUND

Town staff have tabled the 2024 draft budget with Council for deliberation. The detailed information can be found on the Town's website. As part of the 2024 draft budget, staff have summarized the anticipated 10-year capital expenditures along with the funding sources.

REPORT

To provide some further context on the sustainability of our capital plan, the following is a reiteration of information shared at our 2024 pre-budget meeting held in August 2023:

Capital inflation in many cases has been more severe than the consumer price index increases. The Town uses the Non-Residential Construction Price Index (Toronto) as guide – below are the average annual increases:

Construction Price Index - Toronto - Non-Residential building

https//www.150.statcan.gc.ca

	2019		2020		2021		2022		2023	
Quarter	**Index**	**YR/YR %**	**Index**	**YR/YR %**	**Index**	**YR/YR %**	**Index**	**YR/YR %**	**Index**	**YR/YR %**
1	107.4	5.19%	110.6	2.98%	112.1	1.36%	134.2	19.71%	150.6	12.22%
2	108.3	4.03%	111.1	2.59%	119.9	7.92%	140.9	17.51%	152.3	8.09%
3	109.2	3.31%	111.7	2.29%	125	11.91%	144.5	15.60%	154	6.57%
4	109.7	2.91%	112.1	2.19%	129.3	15.34%	148.1	14.54%		
Ann Avg	**108.7**	**3.86%**	**111.4**	**2.51%**	**121.6**	**9.13%**	**141.9**	**16.84%**	**152.3**	**8.96%**
Ann Avg. Qtr 1 - 3		4.18%		2.62%		7.06%		17.61%		8.96%

To put this into perspective, below is a comparison of the estimated value of the Town's replacement value of all its assets in 2018 versus 2022:

	2018	2022
Tax Supported – Replacement Value	$219,000,000	$296,000,000
Increase - $	$77,000,000	
Increase - %	35.16%	

NOTES:

- Includes capital additions, replacements, and disposals from 2018 – 2022
- 2022 updated replacement value based on using historical cost indexes using Non-residential construction price index (Toronto) for construction-based assets and CPI (Canada) for all other assets
- Does not include growth related capital assets
- Does not include service level increases or asset enhancements
- Does not include asset lifecycle events

The large increase in replacement value brings into question the recent gains made in investing into our assets and infrastructure. The best practice in Ontario is to measure the municipality's current annual capital investment (annual capital allocation, capital reserve transfers, ongoing capital grants, and other stable capital funding) against the municipality's recommended investment requirement (replacement value divided by adjusted useful life of assets). The chart below compares the annual investment requirement to the Town's funding available for the 2016 AMP, the 2018 AMP update, and the updated 2022 replacement values:

Tax Funded Assets:

TAX FUNDED	Grant Funding	Reserve Transfers	Total Funding Available	Average Annual Investment Required	Annual (Deficit)/Surplus	
2016 AMP	$ 603,000	$ 2,285,000	$ 2,888,000	$ 3,435,000	-547,000	**84.08%**
2018 AMP Update	$ 606,936	$ 2,209,694	$ 2,816,630	$ 3,486,057	-669,427	**80.80%**
2022 Estimate	$ 1,090,000	$ 2,638,000	$ 3,728,000	$ 4,453,550	-725,550	**83.71%**

- Grant funding increase is due to OCIF (Provincial) funding changes and annual allocation
- Reserve transfers include general capital, fire capital, and public works equipment

It is positive to see the Town's annual investment deficit remain around the 84% mark, even with the extreme inflation increases factored in. Furthermore, it is important to note that the 2023 budget included a larger transfer to capital reserve transfer of $155,000. The reserve policy change to allocate investment income to the capital reserve will result in an increase of approximately $270,000 in 2023. Both should lead to an improvement in 2023, barring further excessive capital cost increases.

Rate Funded (Water and Wastewater) Assets:

RATE FUNDED (Water and Wastewater)	Grant Funding	Rates to Capital	Total Funding Available	Average Annual Investment Required	Annual (Deficit)/Surplus	
2016 AMP	$ -	$ 488,000	$ 488,000	$ 923,000	-435,000	52.87%
2018 AMP Update		$ 522,046	$ 522,046	$ 939,467	-417,421	55.57%
2022 Estimate		$ 1,686,137	$ 1,686,137	$ 1,518,223	167,914	111.06%

- Rates to Capital increased due to increased water and wastewater rates, debt payments being completed, and more accurate budgeting of reserve transfers.

Although the average annual investment requirement increased substantially, the 2022 estimated amount of capital funding available from rates has also increased drastically to a point where the funding is in a surplus position. It is important to note that the annual investment required does not include growth related investments, which for wastewater is expected to be significant within the next 5 – 10 years. Further to that, the Town has seen the reserve transfer available for capital shrink over the last couple of years due to operating cost increases.

As part of our asset management process, by next July 2024, staff will be bringing forward to Council an update of the asset management plan that will include current service level parameters.

The Town places funds into capital reserves each year, which are used to fund all our capital projects. Four strategies are in place to bring our capital funding to a sustainable level and have been included in our long-term financing strategy:

1. A 5% increase to the annual capital reserve transfer is added each year – for 2024 that increase is $112,792.
2. An increase of 25% of the annual net growth is added to the capital reserve transfer – for 2024 that increase is estimated at $47,500 (The rationale is that added growth involves added infrastructure that is funded typically through development charges – the replacement of that infrastructure in the future is 100% on the municipality – this added amount to the reserve transfer will help fund those future costs)
3. The capital reserves beginning in 2023 now earn their own investment income – for 2024, the returns are expected to be approximately $300,000. This change will assist with managing inflation on capital/infrastructure costs.
4. Debt payments are part of the Town's capital contribution; as such, as debt matures, those annual contributions will be placed into the annual capital contribution as either transfer to reserve or payments for new debt obligations.

Next step is to look at our 10-year draft capital plan – summarized below:

Row Labels	Sum of 2024	Sum of 2025	Sum of 2026	Sum of 2027	Sum of 2028	Sum of 2029	Sum of 2030	Sum of 2031	Sum of 2032
Administration	969,459.00	110,000.00		80,000.00	75,000.00	80,000.00	226,000.00	80,000.00	75,000.00
Community Services	1,103,000.00	964,500.00	407,500.00	414,000.00	2,619,000.00	579,000.00	1,051,000.00	272,000.00	134,000.00
Corporate Services	340,000.00	55,000.00	55,000.00	92,730.00	305,000.00	305,000.00	55,000.00	555,000.00	805,000.00
Facilities	443,000.00	264,000.00	3,011,500.00	2,549,500.00	232,000.00	152,000.00	131,000.00	762,000.00	216,000.00
Fire	83,000.00	25,000.00	11,000.00	10,000.00	717,000.00	18,000.00	22,000.00	25,000.00	11,000.00
Fleet	1,146,000.00	55,000.00	310,000.00	595,000.00	750,000.00	175,000.00	498,000.00	200,000.00	205,000.00
Library									
Planning		62,400.00					90,000.00		
Roads	2,946,000.00	1,680,000.00	621,000.00	2,018,000.00	2,975,600.00	4,484,000.00	2,844,000.00	2,001,200.00	1,242,300.00
SAN	9,365,513.00	1,735,000.00	90,000.00	670,000.00	2,862,666.67	4,232,666.67	3,237,666.67	750,000.00	500,000.00
Waste	415,000.00	120,000.00	3,925,000.00		25,000.00		25,000.00	1,250,000.00	525,000.00
Water	670,000.00	1,585,000.00	1,365,000.00	545,000.00	130,000.00	1,148,000.00	602,000.00	370,000.00	515,000.00
Grand Total	**17,480,972.00**	**6,655,900.00**	**9,796,000.00**	**6,974,230.00**	**10,691,266.67**	**11,173,666.67**	**8,781,666.67**	**6,265,200.00**	**4,228,300.00**

NOTE: The 2024 expenditures include both the 2024 draft budget capital items and the 2023 carry forward projects.

As shown, there is an estimated $80M required to be spent over the next 10 years.

Based on the capital expenditure plan, the proposed funding sources are as follows:

Row Labels	Sum of 2024	Sum of 2025	Sum of 2026	Sum of 2027	Sum of 2028	Sum of 2029	Sum of 2030	Sum of 2031	Sum of 2032
Donations	25,000.00								
Government Grants	1,905,000.00	500,000.00	3,000,000.00	850,000.00	2,538,000.00	1,138,000.00	970,000.00	720,000.00	
Res Fds - Dev Charge	5,015,000.00		1,324,000.00	598,700.00	2,753,333.33	4,640,333.33	4,015,833.33	1,210,200.00	185,300.00
Reserve - Fire	83,000.00	25,000.00	11,000.00	10,000.00	717,000.00	18,000.00	22,000.00	25,000.00	11,000.00
Reserve - General Ca	2,771,459.00	1,375,900.00	2,416,000.00	2,556,230.00	1,723,000.00	797,000.00	1,327,000.00	1,179,000.00	1,241,000.00
Reserve - Landfill	415,000.00	120,000.00	950,000.00		25,000.00		25,000.00	1,250,000.00	525,000.00
Reserve - Police		80,000.00		80,000.00		80,000.00		80,000.00	
Reserve - PW Equipm	1,146,000.00	55,000.00	55,000.00	595,000.00	695,000.00	175,000.00	498,000.00	200,000.00	205,000.00
Reserve - Roads	1,045,000.00	1,180,000.00	585,000.00	1,098,000.00	1,762,600.00	1,460,000.00	756,500.00	481,000.00	1,046,000.00
Reserve - Wastewate	4,365,513.00	1,735,000.00	90,000.00	670,000.00	347,333.33	1,717,333.33	722,333.33	750,000.00	500,000.00
Reserve - Water	670,000.00	1,585,000.00	1,365,000.00	516,300.00	130,000.00	1,148,000.00	445,000.00	370,000.00	515,000.00
Developer	40,000.00								
Grand Total	**17,480,972.00**	**6,655,900.00**	**9,796,000.00**	**6,974,230.00**	**10,691,266.67**	**11,173,666.67**	**8,781,666.67**	**6,265,200.00**	**4,228,300.00**

Placing all that information together, below is a summary of the expected capital reserves ending balances by year:

Year	Fire	General Capital	Landfill	Police	PW Equipment	Roads	Wastewater	Water	DCs	Total
2023	(154,292)	4,687,945	260,459	88,000	1,094,616	511,535	89,061	2,477,370	2,638,697	**11,693,390**
2024	(83,292)	3,682,281	12,710	118,000	284,220	333,492	180,139	2,694,966	3,045,605	**10,268,122**
2025	47,708	4,150,063	54,474	68,000	546,746	59,051	(863,813)	2,052,514	3,332,312	**9,447,055**
2026	194,708	2,803,888	198,835	98,000	843,860	410,101	(276,751)	1,633,061	2,458,264	**8,363,967**
2027	344,708	2,256,358	383,139	48,000	639,242	318,682	(181,325)	2,059,223	2,288,636	**8,156,664**
2028	(210,292)	2,536,860	550,051	78,000	320,922	(9,820)	303,058	2,863,625	(23,377)	**6,409,026**
2029	(64,292)	4,225,880	750,393	28,000	524,716	485,623	(506,645)	2,680,728	692,562	**8,816,965**
2030	79,708	5,970,084	933,044	58,000	427,406	875,895	(285,139)	3,193,740	(3,383,691)	**7,869,048**
2031	222,708	7,955,171	(105,508)	8,000	641,533	1,602,731	(19,175)	3,790,116	(4,627,362)	**9,468,213**
2032	381,708	9,977,792	(434,117)	38,000	872,711	1,832,443	569,349	4,256,361	(4,823,528)	**12,670,720**

The estimates show that the Town capital reserves are adequate to fund the 10-year plan and the total reserve balance will be in line with our current total reserve balances by the end of the 10-year period. Having said that; there are a few areas to point out and staff will be reviewing and possibility modifying as new information becomes available. Those items are discussed below:

- Fire reserve fund has been in a negative position but is properly funded long term, with a dip in 2028. Future budgets will likely need to consider a slight annual increase to assist with inflationary costs.
- Landfill reserve will be impacted by the changes to the producer pay model for waste diversion – while estimates have been assumed, these estimates will need to be revisited once more information is available on how the new program works and how the costs for Municipalities is reduced.
- Wastewater reserve is balanced using long-term debt but will have some deficit positions through the years. Staff are expecting to receive the revised water and wastewater plans from our engineering consultants within the next few months. This will assist in our estimates and early discussions include temporary funding assistance from the Water reserve to the Wastewater reserve.
- Development Charges (DCs) are expected to be used up by 2028, with large projects estimated in 2030 bringing the fund to a negative position. Development charges are volatile at the moment and are not raising the amount of funds predicted in the 2022 study based on a sharp decline in residential new building starts. As development trends start to become more predictable, a more robust financial strategy will be developed – there will likely be a need for more external financing as large growth projects are required.

For both Wastewater and DCs – the WWTP capacity upgrade required in 2029 or sooner is a large portion of the strain on the financing plan. The Provincial government recently announced $200M over three years for a new Housing-Enabling Water Systems Fund. Eligible municipalities will be able to apply for funding for the repair, rehabilitation and expansion of core water, wastewater, and stormwater projects that promote growth and enable housing development. This project may be a perfect candidate for this funding and would immensely improve both these reserve outlooks. As information becomes available, staff will analyze in order to be in a position to apply for these funds.

With all this information, the key question remains: is the Town in a financially sustainable position to continue to offer the services to the community at the current levels expected? Based on the next 10 years, with the information currently available, the Town can afford the capital plan; but there is still some work to do to in the following areas:

- Building reserves for future needs - much of the Town's major underground infrastructure was built in the 1970s, as such, continued increases in the capital reserves will be necessary.
- Better budgeting for needed major maintenance or lifecycle events to ensure assets meet their expected useful lives.
- Regular condition assessment be performed to avoid unexpected expenditures – most have been completed with the PRC condition assessment proposed for 2024.

A good indicator of how well the Town is doing is benchmarking against our peers. As municipal asset management plans are completed using different parameters it becomes difficult to compare apples to apples, however having reviewed many plans within Ontario I would suggest our current financial capital position is better than average. Using the Financial Information Returns (FIR) as a historical data set, the following capital benchmarking information can be extracted:

Capital Financial Indicators	2018 - 2022 avg St. Marys	2021 Provincial Avg		Commentary
Captial Expenses per Hshld	1,484	1,940		*Capital expenses fluctuate from year to year - St. Marys is based on 5-year average*
Total Capital Grant per Hshld	70	337		*Capital grants fluctuate from year to year - St. Marys is based on 5-year average. Grants include Provincial and/or Federal government grants*
Debt per Hshld	2,361	4,261		*Total debt per household*
Asset Sustainability Ratio	194.07%	171.75%		*An approximation of the extent to which a municipality is replacing, renewing or acquiring new assets as the existing infrastructure being managed by the municipality are reaching the end of their useful lives. St. Marys based on 5 year average.*
Asset Consumption Ratio	33.13%	36.78%		*Measures the age of a municipality's physical assets. It measures the extent to which depreciable assets have been consumed by comparing the amount of the assets that have been used up and their cost. (< 25% - Relatively NEW infrastructure, 26% to 50% - Moderately NEW infrastructure, 51% to 75% - Moderately OLD infrastructure, >75% - OLD infrastructure). St. Marys based on 5 year average.*

SOURCE: Ministry of Municipal Affairs Financial Information Return open data

This information provides some further evidence that the Town has made some good strives with its capital sustainability. An area where the Town differs quite drastically from the provincial average is total capital grants per household. One reason is that the Town's two major grant funding sources (Canada Community Building Fund and Ontario Community Infrastructure Fund) allows the municipality to accumulate funds and spend in the future – in the Town's case, there is a total $2,800,000 accumulated, with $600,000 planned to be utilized in 2023, $1.8M in 2024, $500k in 2025, and $3M in 2026. The debt per household, asset sustainability ratio, and asset consumption ratio are all very positive for the Town. This data will be collected and compared annually to monitor the trends. The large risks inherit with this plan are the changes in service levels the Town may be required to provide in the future – either legislated or community needs based.

Staff will discuss this information in more detail during the budget deliberations and should provide Council with a good capital outlook to assist in deliberating the 2024 proposed capital budget.

FINANCIAL IMPLICATIONS

Financial implications are noted above and listed within the draft 2024 budget documents.

SUMMARY

The Town of St. Marys has an extensive capital plan that is expected to cost over $80M over the next 10 years. To ensure sustainability, staff have proposed a long-term financing strategy that takes into account strong financial stewardship, use of all available financing tools, and following best practices to ensure the Town can continue to offer the service levels currently being offered.

STRATEGIC PLAN

☒ This initiative is supported by the following priorities, outcomes, and tactics in the Plan.

- Pillar #1 Asset Management
    - Develop financial plan

OTHERS CONSULTED

Denise Feeney, Manager of Finance/Deputy Treasurer

Report Approval Details

Document Title:	COR 57-2023 Capital Plan Overview.docx
Attachments:	
Final Approval Date:	Nov 14, 2023

This report and all of its attachments were approved and signed as outlined below:

Brent Kittmer

FORMAL REPORT

To:	Mayor Strathdee and Members of Council
Prepared by:	André Morin, Director of Corporate Services / Treasurer
Date of Meeting:	21 November 2023
Subject:	**COR 58-2023 Rate-funded Capital Financing**

PURPOSE

To provide Council with information on capital financing items related to our rate-funded departments: Landfill and Wastewater.

RECOMMENDATION

THAT COR 58-2023 Rate-funded Capital Financing report be received; and

THAT Council consider a one-time transfer of $600,000 from the General Capital reserve to the Landfill reserve; and

THAT Council consider approving the following short term promissory notes for the construction financing of the Wastewater Treatment Plan upgrades; to be funded by the wastewater reserve and development charges:

1. Promissory Note – up to $2,600,000 from PUC Fund, Interest rate 5% per annum, accrued at time of draw, interest paid quarterly, to be converted to term loan in 2024 (details to be confirmed at time of conversion)
2. Promissory Note – up to $2,000,000 from the Water reserve, Interest rate 5% per annum, accrued at time of draw, interest paid quarterly, to be partly converted to term loan in 2024 (details to be confirmed at time of conversion)
3. Promissory Note – up to $4,400,000 from general reserves, Interest rate 5% per annum, accrued at time of draw, interest paid quarterly.

THAT Council direct the Director of Corporate Services/Treasurer to report back in the 3rd quarter of 2024 to confirm and receive final Council approval to secure long-term debt as described within COR 58-2023 report.

BACKGROUND

The Town of St. Marys has two significant projects impacting our rate-funded departments – Solid Waste and Wastewater:

Solid Waste:

Solid waste (which includes landfill, recycling, and other waste diversion programs) is self-funded within the Town – meaning the user fees pay for the 100% of the operating and capital cost. A full user pay solid waste structure is a best practice that is not achieved by many Municipalities in Ontario. The Town has been working on an environment assessment for several years to expand the current landfill.

The cost of this process has well exceeded previous projections causing the landfill reserve to be in a negative position.

Wastewater:

Wastewater services are fully funded by user fees. In 2023, the Town approved and began work on a new wastewater treatment plant administration building along with major rehabilitation to the grit removal and odour control systems. The project award in June 2023 was for approximately $10,000,000. Work has begun, and the funding model was to be confirmed at a future date.

REPORT

Solid Waste:

The balance of the solid waste reserve at the beginning of 2023 was - $439,500. Based on estimated operating and capital requirements, this negative balance is estimated to continue. In creating the 10-year plan, there are two recommendations staff are suggesting helping alleviate this deficit.

1. A portion ($1,000,000) of the future expansion works (estimated to be completed in 2026) be funded by the Canada community revitalization fund (formerly Federal Gas Tax).
2. Provide a one-time cash injection of $600,000 from our general capital reserve to the solid waste reserve.

Based on these changes, the 10-year reserve balances are estimated as follows:

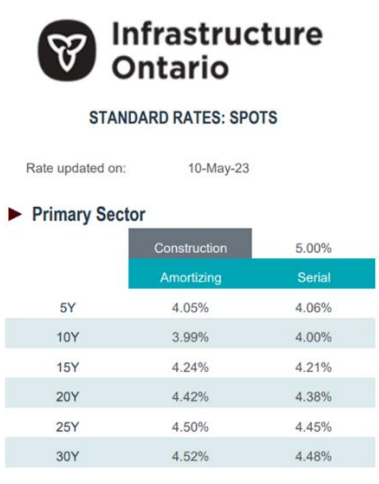
Year	Landfill
2023	260,459
2024	48,405
2025	92,225
2026	238,627
2027	424,538
2028	591,961
2029	792,570
2030	975,358
2031	(63,026)
2032	(390,909)

As shown, positive balances are expected until 2031 - at that point, due to the next large expansion project expected, the reserve dips into the negative again. Staff and Council will have an opportunity at that point to consider further options – likely using long term debt or grant funding to mitigate the negative reserve balances estimated in 2031/2032. These mitigation tactics have not been assumed in our current long-term plan.

Wastewater:

The current wastewater project is a very large expenditure that is to be funded by both wastewater fees and development charges. In both cases there are not enough funds to fully cash flow this size of project and debt will be utilized as a primary funding source for the project.

Long-term borrowing rates have been volatile over the last couple of years. Below are the spot rates for Infrastructure Ontario loans at different time periods during 2023:



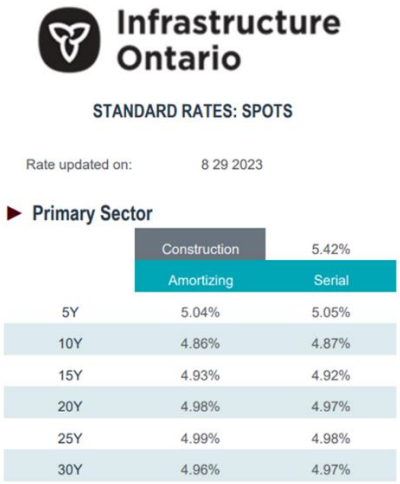
Infrastructure Ontario

STANDARD RATES: SPOTS

Rate updated on: 10-May-23

▶ Primary Sector

	Construction	5.00%
	Amortizing	Serial
5Y	4.05%	4.06%
10Y	3.99%	4.00%
15Y	4.24%	4.21%
20Y	4.42%	4.38%
25Y	4.50%	4.45%
30Y	4.52%	4.48%



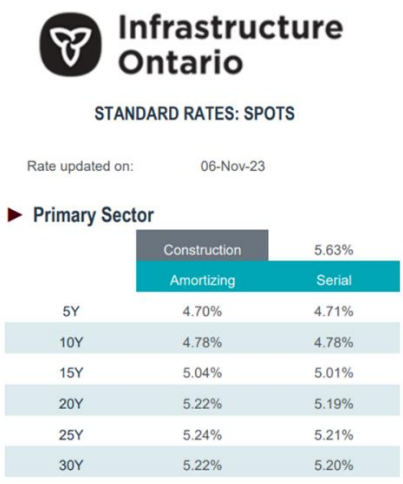
Infrastructure Ontario

STANDARD RATES: SPOTS

Rate updated on: 8 29 2023

▶ Primary Sector

	Construction	5.42%
	Amortizing	Serial
5Y	5.04%	5.05%
10Y	4.86%	4.87%
15Y	4.93%	4.92%
20Y	4.98%	4.97%
25Y	4.99%	4.98%
30Y	4.96%	4.97%



Infrastructure Ontario

STANDARD RATES: SPOTS

Rate updated on: 06-Nov-23

▶ Primary Sector

	Construction	5.63%
	Amortizing	Serial
5Y	4.70%	4.71%
10Y	4.78%	4.78%
15Y	5.04%	5.01%
20Y	5.22%	5.19%
25Y	5.24%	5.21%
30Y	5.22%	5.20%

This shows interesting trends in the debt financing market that appears to be normalizing recently. While it is difficult to predict, many economists are predicting the Bank of Canada will begin to reduce the policy interest rate by mid 2024.

With falling and/or steadying central bank interest rates, fixed income investment returns should see a decline and long-term debt interest rates should also see a decline. Therefore, strategically we want to lock in any invested funds that will not be needed over the next six months, while cash flowing debt related projects until better debt interest rates are available.

Below are the details of the recommending financing plan for the WWTP upgrades:

Total net cost of the project: $10,000,000 ($5M from WW, $5M from DCs)

(note that staff have already been working with the contractor and confirmed several cost saving change orders – final cost will be detailed when the project is completed).

Estimated cash flow timing:

Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 - 2024	Q1 - 2025
1,200,000	850,000	3,350,000	3,100,000	1,000,000	500,000

The recommended action plan is to cashflow the project with internal funds – similar to construction financing, using an interest only promissory note until which time the long-term debt is secured (3rd quarter 2024) as described below:

First $1,000,000	Funded by Wastewater reserve
Next $2,600,000	PUC Reserve Fund - Interest only promissory note – interest rate 5% per annum, paid quarterly
Next $2,000,000	Water Reserve – Interest only promissory note – interest rate 5% per annum, paid quarterly
Remainder up to $4,400,000	General reserves – Interest only promissory note – interest rate 5% per annum, paid quarterly

The long-term debt will be confirmed in 3rd quarter of 2024 – as follows:

Amount	Funding Source	Debt Source	Annual Payment	Terms
$5,000,000	Development Charges	Bank	$353,758	4% int., 5-year term, 20 year amortization
$2,600,000	Wastewater	PUC Reserve Fund	$232,785	4.5% int., 15-year term
$1,000,000	Wastewater	Water Reserve	$86,482	4.0% int, 15-year term
$8,600,000	**(Subtotal)**			
$1,400,000	Wastewater – direct funding			
$10,000,000	**(Total)**			

The exact details may differ based on the final change orders and current interest rates in the 3rd quarter of 2023.

This funding model will allow the Town to secure current generous fixed income investment returns, use own funds to finance the cash flow, and properly use debt as a financing tool when interest rates are possibly expected to soften. The combination of long-term financing through both internal and external sources will provide flexibility to shorten or extend any payment terms if the economic environment changes, or if different needs arise.

FINANCIAL IMPLICATIONS

The financial implications are included in the body of the report.

SUMMARY

The Town is committed to long-term financial sustainability. With some big projects ahead, staff are recommending Council consider two financial proposals:

1. A transfer of funds from the General Capital reserve to the Landfill reserve
2. A short-term cash flow funding model for the WWTP upgrades, with a long-term debt plan through a combination of external and internal funding sources

STRATEGIC PLAN

☒ Not applicable to this report.

OTHERS CONSULTED

Dave Blake, Environmental Services Manager

Denise Feeney, Finance Manager/Deputy Treasurer

Report Approval Details

Document Title:	COR 58-2023 Rate-funded Capital Financing.docx
Attachments:	
Final Approval Date:	Nov 13, 2023

This report and all of its attachments were approved and signed as outlined below:

Brent Kittmer

FORMAL REPORT

To:	Mayor Strathdee and Members of Council
Prepared by:	Doug LaPointe, Recreation Operations Manager
Date of Meeting:	21 November 2023
Subject:	**DCS 53-2023 Aquatics Centre Natatorium Report**

PURPOSE

As Council will recall, on Friday February 3rd a 5-foot-long x 4-inch-wide piece of vinyl corner fascia fell into the pool from the bulkhead spanning across the pool under the high bay windows. The PRC was immediately closed to allow for investigations to occur to determine if the facility was safe to be open. Once the facility was deemed safe by BM Ross and reopened, DEI consulting was hired to complete a detailed investigation into the cause of the issue and to recommend necessary upgrades to prevent similar issues in the future.

This report is to provide Council with a high-level summary of the condition report and summary letter of recommendations provided by the consulting firm, DEI Consulting Engineers, Inc. The report and letter are attached, and the consulting engineer will be present at the November 21, 2023 budget meeting to present further information. The consultant is prepared to provide detailed explanations of their recommendations to proceed with necessary upgrades, the Aquatics Centre Natatorium and on the steps needed moving forward to ensure the long-term viability of the Centre.

RECOMMENDATION

THAT DCS 53-2023 Aquatics Centre Natatorium report be received; and

THAT Capital project #41 Aquatics Centre Renovation be approved to be included in the 2024 capital budget with a net total budget cost of $1,675,000.

BACKGROUND

Natatorium is defined as a building or complex that contains one or more swimming pools.

The Aquatics Centre opened in 2008. From the outset, issues were present with moisture and the design architect was brought in to review the cause and to recommend solutions. At the time, the interior moisture issues were thought to be caused by a roof leak as the dripping was generally observed to be in one location. There were various patches to the roof attempted until the roof was finally replaced in 2016. However, this did not correct the issue, and dripping persisted until circulating fans were installed in 2020 to assist with drying the windows. The circulation fans helped to reduce the dripping, but did not stop it entirely, with it being present during periods of very cold weather outside.

In addition to the above, upon start-up of the HVAC equipment in 2008, deficiencies were noted by the start-up company, some of which remain today. These issues are managed through operating contingencies to operate the facility as best as possible, but humidity on the pool deck continues to be an issue.

One factor which has helped slow deterioration of the interior of the facility and helped to better manage the indoor air quality was the removal of the salt system in 2019. The chemistry of the indoor air has

improved with newer water chemistry technology, improved patron experience, and has removed a significant corroding factor. However, due to the length of time the saltwater system was used there is salt corrosion present throughout the Aquatics Centre and residue visible on all steel surfaces and piping. The salt system operating was a compounding factor with the higher humidity, accelerating the deterioration of many of the mechanical components in the facility. The consequence was these mechanical components having to be replaced earlier and more often than anticipated, leading to higher operating costs. Since the salt system has been removed, many pieces of mechanical equipment which have been replaced are expected to remain in better condition for longer. This includes Dectron components, pumps, piping, heat exchangers, valves, pool hot water supply boilers, electrical disconnects, wiring and motor drives. There are many mechanical components still in need of replacement or repair due to historical corrosion within the natatorium. These include railings, lifeguard chairs, lane starter platforms, sprinkler heads, and other metal surfaces.

After all the technical modifications to the Aquatics Centre including roof replacement, new equipment and removal of the salt, moisture and humidity in the natatorium continued to be an issue. Various proposals to correct the issue have been considered over time, with some being tried or noted (i.e., additional HVAC equipment to research, adjustments to Dectron operation such as exhaust and air exchange, adjustments to pool water temperature, etc.) and some being dismissed (i.e., large ceiling fans, additional circulating fans).

A contributing factor to the increased humidity in the Aquatics Centre has been public influence. Patron comfort and reducing complaints about cold water have always been considered, and water temperatures were directed by Council at a point in time to be kept warmer to ensure the public was happy. However, this was detrimental to indoor air quality as the warmer pool temperatures and cooler air temperatures only exacerbated internal humidity issues.

In February of 2023, the deterioration of the facility became evident in a very visible way with the failure of material mounted to the section of wall which spans the width of the pool and debris falling into the pool just prior to the scheduled opening for the first program of the day. Upon further inspection it was discovered that the entire wall makeup was at risk of falling due to deterioration from moisture being present on the inside of the wall. This moisture was determined to be the initial source of the dripping experienced near the location mentioned above.

Following this incident, these steps were taken:

- The pool was immediately closed for the removal of the material at risk of falling. In addition, the facility was thoroughly inspected by a qualified engineer to confirm it was safe to reopen and to provide suggestions on strategies for repair.
- The facility was deemed structurally safe, with short term repairs completed to be able to reopen in a safe manner without risk to the safety of workers or patrons. This continues to be the current state of repair for the area where the wall failed.
- DEI Consulting Firms Inc. was recommended by several firms in the aquatics industry to be brought in and assess the damage and make recommendations to appropriately renovate the natatorium. This assessment was completed and is attached to this report.

REPORT

A review was completed by DEI Consulting Firms Inc. of the current condition of the natatorium. The primary scope of work was how the facility was built to manage and maintain proper indoor air quality and humidity control, what is causing the current issues, and recommendations to improve the situation. Included in their review was a review of facility design drawings compared to the current as-built condition. The assessment also included a review of the construction materials and HVAC/exhaust systems installed to ensure the natatorium was properly insulated to manage the indoor air

environment. Finally, the assessment also included consideration of dewpoint control within the necessary parameters.

Upon a review of the facility design and as-built drawings, shortcomings were flagged that have existed since completion of the centre in 2008. A summary of the findings is provided below, and a more detailed summary of the review is attached to this report titled “St. Marys Rec Centre Review May 2, 2023.”

- First, the insulation within the roof structure was below industry recommended requirements for aquatics facilities, prior to the roof being replaced in 2016. As it currently stands, the roof is now insulated above the minimum requirement and requires no further action. However, for the 8-year period prior to replacing the roof, excess moisture and humidity would have penetrated through the roof contributing to premature deterioration of materials within the natatorium when combined with other factors mentioned in their report.
- Second, there was additional HVAC equipment with duct work included in the design of the facility to ensure proper indoor air quality at the higher levels of the natatorium near the ceiling, which includes high bay windows on the north and east sides of the facility. This HVAC and ductwork system was never installed, and there are no notes on drawings or in project files explaining why. The result is the natatorium only having about half of the HVAC capacity required to properly maintain the space. This deficit in HVAC capacity is the main contributing factor in excessive humidity throughout the natatorium.
- Third, the lack of HVAC capacity also includes underperforming exhaust design which falls below minimum standards for an aquatics facility, affecting indoor air quality related to fresh air intake as well as humid air outtake.

These factors combined have led to an inability to properly manage the dewpoint and remove excess humidity, causing condensation to occur on and within the walls of the facility on all sides. This is the leading cause of the deterioration seen in the high bay wall spanning over the pool. The condition changes seasonally, with the cold winter months being the most concerning as cold outdoor temperatures well below freezing oppose the warm indoor air temperature in the natatorium which range from 28-29 degrees Celsius. It is these conditions which cause the most moisture which needs to be removed.

It is the consultant’s recommendation to install additional equipment to improve the indoor air quality of the Centre and stop the deterioration of the natatorium. The attached letter dated September 21st includes the recommended scope of work to make these improvements, with a second phase to begin restoring areas of the Centre which have experienced excessive deterioration. The priorities would be to first make the necessary corrections to improve indoor air quality, followed by replacing components of the Centre which are deteriorated.

To summarize, we require additional mechanical HVAC equipment to remove excess humidity as well as to push forced air to increase the temperature of the windows in the high bay to prevent moisture. This would coincide with the necessary repairs to materials and equipment damaged or deteriorated due to salt corrosion, excess humidity, and surface moisture. The timeline for the project to be completed would be dependent on when the project is approved. Currently, lead times for delivery of materials, equipment, and supplies averages 30 weeks to arrive after ordering. Once the equipment is received, the project work would take approximately 6 months to complete. Realistically, this project would begin in late 2024, or into 2025 depending on approval and procurement timelines.

The consultant expressed it is critical to act now to make repairs before there are critical failures caused by corrosion. If these failures were to occur it would require the facility to shut down for more extensive repairs. One example of note is the current condition of the sprinkler piping with corrosion and salt residue present on the surface of all piping. Should the piping fail, a leak would occur causing the facility to immediately close to replace the entire sprinkler piping system. The cost of this repair is

estimated to be well over $200,000 as opposed to restoring the existing piping by painting and replacing the sprinkler heads for significantly less cost. There is no indication a failure of this system is imminent, however it is impossible to determine the interior condition of the piping which will continue to deteriorate at an accelerated rate if the interior humidity issues persist. This is just one of many examples of components which could fail if nothing is done.

Also of note, the excessive humidity present in the natatorium will continue to worsen if no action is taken. This impacts the work environment for the Lifeguards. If the recommended upgrades are not made, the Town would have to consider a contingency plan to ensure the Lifeguards do not face any adverse effects from prolonged exposure to the hot and humid conditions.

Finally, it is the consultant's recommendation that the facility is fully assessed by a qualified consulting firm annually at a minimum to determine the condition of the interior.

FINANCIAL IMPLICATIONS

The renovation would be completed during a scheduled maintenance shutdown for an estimated 6 months to complete all the necessary repairs once all materials, equipment, and supplies are delivered. The first phase would encompass the mechanical equipment being installed to ensure the indoor air environment was within the correct parameters prior to replacing components within the natatorium. This would ensure the materials within the natatorium were optimally protected from excessive humidity and free from condensation. During this phase, repairs would be made to the walls that failed in February 2023. The second and third phases would include the restoration and replacement of materials and equipment within the natatorium. The recommended scope is as follows:

PHASE 1:

To be completed during a scheduled shutdown period once all materials and supplies have been secured for installation:

- New rooftop air handling unit complete with exterior exposed ductwork and new gas line.
- New remote condensing unit (serving new air handling unit).
- New rooftop exhaust fan and associated low level exhaust.
- New high level exposed aluminum supply duct and mid return duct routed through existing change room ceiling space.
- New BAS controls for all new equipment.
- Remove and replace existing drywall ceiling and reinstate waterproofing and painting.
- New roof curbs (air handling unit, exhaust fan, duct penetration), new sleepers, and associated re-roofing.
- Structural reinforcement of existing beams in changeroom ceiling space.
- Rework of existing curtain wall to suit new duct penetration.
- Repair of existing East high-level stud wall (new insulation, siliconized GWB, finish coating)
- Tie new air handling unit drain into existing sanitary main.
- Modify/demolish existing ductwork systems to suit layout/ceilings.
- Modify existing sprinkler system to suit new layout/ceilings.

Sub Total = $1,354,250.00
Contingency (10%) = $135,425.00
Total Phase 1 Estimated Probable Cost = $1,489,675.00 HST Extra

PHASE 2:

It is recommended to complete this work once phase 1 is complete, within the same scheduled maintenance shutdown:

- Clean and repaint roof beams and sprinkler piping.
- Replace sprinkler heads.

- Repaint the remainder of interior walls.
- New acoustic wall panels.

Subtotal = $142,350.00
Contingency (10%) = 14,235.00
Total Phase 2 Estimated Probable Cost = $156,585.00 HST Excluded

Total Phase 1 and 2 Probable Cost = $1,646,260 HST Excluded

PHASE 3:

Additional previously anticipated and planned capital lifecycle maintenance/replacements to be completed during the same scheduled maintenance shutdown:

- Replacement of both main pool filters
- Replacement of lifeguard chairs
- Cleaning or replacement of stainless-steel railings as required
- Replacement of starting blocks supporting swim team lane programs and meets
- Spot replacement of stained deck tile as needed from moisture damage.
- Removal of some previous spa equipment and materials from the mechanical room.

Subtotal = $200,450.00
Contingency (10%) = $20,045
Total Phase 3 Estimated Probable Cost = $220,495.00 HST Excluded

This work has been included in separate 2024 and 2025 recommended capital sheets

Consultant's note: The estimated probable costs for phases 1 and 2 are based on DEI Consulting Engineers Inc.'s best judgment. It is important to note that construction costs vary widely due to various factors outside of DEI Consulting Engineers Inc.'s control. Phase 3 probable costs are based on budget estimates provided to staff for capital planning and maintenance. Furthermore, the age of the existing infrastructure may necessitate significant, unforeseen costs that were not accounted for including, but not limited to, blocked underground conduit, direct buried cabling, etc.

If approved, the funding for this project could come from the following sources:

- General Capital Reserve
- Long-term debt
- Canada Community Building Fund (formerly Federal Gas Tax)
- Combination of the above

The Town's 10-year capital plan anticipated a $600,000 aquatics centre project; therefore, an additional $1,075,000 is not anticipated in the plan. The 10-year forecast could sustain this extra expense if approved. However, staff recommend that the funding plan for this project be finalized after staff have completed a full building condition assessment of the PRC. Based on any findings from that report, staff can update the full long term capital plan and properly adjust the funding model accordingly. For example, if there are no large unanticipated further PRC related expenditures imminent, the recommendation will be to fund this project using our General Capital reserve. Alternatively, if there

are further unexpected expenditures required, the recommendation may be to use long term debt or federal grants to properly create sustainability within the Town's long term capital plan.

SUMMARY

Since the construction of the Aquatics Centre, issues with moisture and humidity have been present. Soon after opening and numerous additional times over the years staff have continued seeking various solutions and called on several experts to help. Over time, attempts were made to correct the issues but the conditions either remained the same or relented to varying degrees. Based on the report from DEI, the cause of the moisture issue has stemmed from the original construction.

Should this renovation be completed following the consultant's recommendations, there would be immediate and long-term benefits. The Aquatics Centre would be restored to like-new condition and would be maintained and operated optimally as originally intended, providing a comfortable experience for patrons and staff. This design would ensure there is proper dehumidification for this area. The new equipment would mean the staff would have much greater flexibility to choose operating water temperatures in line with recreational pools ranging from 82-86 degrees Fahrenheit, provided the air temperature was maintained at 2 degrees higher. The reduction in humidity levels would mean a significant improvement on the deck, even at higher air temperatures. With a proper ongoing maintenance program and lifecycle replacement plan, the consultant sees no reason to doubt the facility would reach its anticipated lifespan of 50 years, recognizing these necessary costs can be significant.

The recommendations from DEI are the minimum requirement to bring the facility to ASHRAE standards for an indoor Aquatics environment and do not include any extra items above and beyond the standard we must absolutely have. As such, there are no real cost savings available by cutting any items from phases 1 and 2 of the proposed recommendations. Phase 3 represents already-anticipated lifecycle replacements in line with the current age and condition of the component to be replaced or items in need of replacement due to the root cause at hand. It should also be noted that this proposal considers the existing Dectron HVAC unit is in ideal condition to remain and can be integrated into the updated design and HVAC operation. This will result in some cost savings versus a full replacement of this unit.

Should the project be completed, staff would then enter a 3-to-5-year partnership with a qualified firm to continue with condition assessments and ensure all Aquatics industry best practices are followed to protect the asset over the long term. A 2024 capital request has been included in the draft 2024 capital budget for this.

If the project does not move forward, it may result in the facility reaching an end of life within 5-10 years due to significant deterioration and costs involved to make major repairs. The Centre would experience more frequent, lengthier, and costlier shutdowns to make unbudgeted, emergent repairs before it would be necessary to close the facility due to its condition. This would progressively make up and possibly exceed a significant portion of the cost to complete the consultant's recommendations, in addition to lost revenue and negative feedback from patrons. A full replacement and new build of a modern Aquatics Centre would be more than $25 million for a similar facility, making the likelihood of ceasing to have an indoor Aquatics Centre a real possibility should we choose not to make the recommended repairs.

It is staffs' recommendation that the Town moves forward with the project as outlined by DEI.

STRATEGIC PLAN

☒ This initiative is supported by the following priorities, outcomes, and tactics in the Plan.

- Pillar #1 Infrastructure – Developing a comprehensive and progressive infrastructure plan.

- Outcome: St. Marys is committed to developing a progressive and sustainable infrastructure plan that meets the infrastructure needs of today and tomorrow. This will require a balance between building and regular maintenance.

OTHERS CONSULTED

- Andre Morin, Director of Corporate Services/Treasurer
- Grant Bouwer, Director of Building and Development

Report Approval Details

Document Title:	DCS 53-2023 Aquatics Centre Natatorium Consultant Report.docx
Attachments:	- Town of St. Marys Design Concept Sept 21 23.pdf - St. Marys Pyramid Rec Centre Review May 2 23.pdf
Final Approval Date:	Nov 15, 2023

This report and all of its attachments were approved and signed as outlined below:

Brent Kittmer

DEI Consulting Engineers
MECHANICAL | ELECTRICAL | AQUATIC

55 Northland Rd.
Waterloo, ON N2V 1Y8

Tel: 519-725-3555
www.deiassociates.ca

September 21, 2023

Town of St. Mary's Pyramid Recreation Centre
317 James St. S.
St. Mary's ON N4X 1B6

Attn.: Doug LaPointe

Re: Pyramid Recreation Centre
St. Mary's, ON
Natatorium Upgrades

Dear Doug:

The following is the phased design concept to provide architectural, structural, mechanical, and electrical services to renovate the Town of St. Mary's Pyramid Recreation Centre's pool ventilation system.

DESIGN CONCEPT

PHASE 1

- New rooftop air handling unit complete with exterior exposed ductwork and new gas line.
- New remote condensing unit (serving new air handling unit).
- New rooftop exhaust fan and associated low level exhaust.
- New high level exposed aluminum supply duct and mid return duct routed through existing change room ceiling space.
- New BAS controls for all new equipment.
- Remove and replace existing drywall ceiling and reinstate waterproofing and painting.
- New roof curbs (air handling unit, exhaust fan, duct penetration), new sleepers, and associated re-roofing.
- Structural reinforcement of existing beams in changeroom ceiling space.
- Rework of existing curtain wall to suit new duct penetration.
- Repair of existing East high-level stud wall (new insulation, siliconized GWB, finish coating)
- Tie new air handling unit drain into existing sanitary main.
- Modify/demolish existing ductwork systems to suit layout/ceilings.
- Modify existing sprinkler system to suit new layout/ceilings.

Sub Total = $1,354,250.00
Contingency (10%) = $135,425.00
Total Phase 1 Estimated Probable Cost = $1,489,675.00 HST Extra

DESIGN CONCEPT

PHASE 2

- Clean and repaint roof beams and sprinkler piping.
- Replace sprinkler heads.
- Repaint remainder of interior walls.
- New acoustic wall panels.

Subtotal = $142,350.00
Contingency (10%) = 14,235.00
Total Phase 2 Estimated Probable Cost = $156,585.00 HST Excluded

The estimated probable costs are based on DEI Consulting Engineers Inc.'s best judgment. It is important to note that construction costs vary widely due to various factors outside of DEI Consulting Engineers Inc.'s control. Furthermore, the age of the existing infrastructure may necessitate significant, unforeseen costs that were not accounted for including, but not limited to, blocked underground conduit, direct buried cabling, etc.

Matthew White, P.Eng.,
Partner
23178 Letter to Town of St. Marys re M&E Design Concept Sept 21 23.docx
mw/ma

DEI Consulting Engineers
MECHANICAL | ELECTRICAL | AQUATIC

55 Northland Rd.
Waterloo, ON N2V 1Y8

Tel: 519-725-3555
www.deiassociates.ca

May 2, 2023

Town of St. Marys
175 Queen Street East
PO Box 998
St. Marys, ON, N4X 1B6

Attn: Grant Brouwer
Director, Building and Development

RE: Pyramid Recreation Centre, Pool Review
St. Marys, ON

In follow up to a site visit on March 2, 2023, and ongoing discussions, DEI Consulting Engineers Inc. (DEI) has completed a review of the Pyramid Recreation Centre's pool facility with regards to the exterior wall moisture damage. Also attached is a report from Grace Wang Architects.

This review is meant to be only the first step as to what is the probable cause. A second part of this report also discusses indoor air quality improvements.

To get a complete understanding of the problem requires an HVAC system engineer and an architect to control the 'dew point' (the point where condensation will occur on a cold surface). To control the 'dew point' four (4) things are required:

1) Very good insulation values to keep the surface of the wall warm.
2) A very good vapour barrier so moisture cannot get into the wall.
3) A suitably sized HVAC system to dehumidify the air.
4) A warm airflow curtain on windows where the insulation is lower, and the interior surface temperature is below the dew point.

Part A: Mechanical HVAC Portion

Window 'Dew Point' Control:

One of the areas of damage that was noted was the upper windows (see Figure 1) where there is no supplied conditioned air. Because of the higher indoor air temperatures for indoor pools (in the range of 82-84°F (27-29°C) and 50-60% relative humidity) there is a very high dew point in the range of 62-69°F (16-20°C). This means anywhere there is a cooler surface condensation will occur and this is very present at the upper glazing areas.

Typically to ensure all windows/glazing remain above the dewpoint, supply air from the dehumidification unit is discharged at the glazing/windows (and the typical rate is 3-5 cfm/ft^2). Currently only the lower curved glazing is being conditioned by supply air from the existing pool area dehumidification unit (refer to Figure 2).

Supply air from the existing dehumidification unit is missing on the upper windows.

Existing Pool Dehumidification Unit Review:

A review of the existing pool's ventilation system (based on the missing existing as-built drawings and existing dehumidification unit shop drawings) was also completed.

Preliminary load calcs were completed based on an assumed average pool water temperature of 84°F, space temperature of 86°F and activity factor of 1.0 (this value is most associated with public facilities) to account for the correct amount of pool water evaporation. In terms of the current capacity of 139 lbs/hr moisture removal, the existing dehumidifier does not meet the calculated required dehumidification of 235 lbs/hr. Therefore, the equipment is not dehumidifying the space properly.

Changes to the current pool system settings were also reviewed to mitigate moisture build-up. If the pool water temperature was dropped to 80°F and the space temperature was maintained at 84°F, the required dehumidification is reduced to 193 lbs/hr. This is a temporary measure that could be introduced till the other issues are addressed.

In terms of the current airflow rate, the existing dehumidification unit has an air turnover rate that exceeds the minimum ASHRAE recommended rate of 4-6 air changes per hour.

The existing dehumidification unit is estimated to be operating with 10-15% outdoor air capacity. There currently is no optional 'purge cycle' on the unit. These 'purge cycles' have the ability to increase the outdoor air capacity for short time periods of 10-15 minutes. There are several limiting factors that would need to be addressed in order for the system to be adjusted to increase outdoor air capacity or add a purge cycle.

Many facilities have implemented a daily purge cycle with their air handling systems. This purge cycle allows for 100% outdoor air to replace the indoor air with fresh outdoor air. These facilities also allow the operator to manually start an air purge cycle. This manual purge override option allows the operator, during times of shock or breakpoint chlorination of the pools to purge out the 'bad' air to return the air quality back to an acceptable level.

Using the purge cycle has the ability to dehumidify the pool room in the winter season as well. This is because the cold outdoor air holds little moisture and when heated will absorb the moisture coming from the pool water evaporation. The negative side to using a purge cycle in winter is that the air needs to be heated (using natural gas) with additional operating costs.

Window Dew Point Control:

The peripheral duct work, louver openings, etc. would need to be reworked in order to supply sufficient air to the upper windows. By increasing the air supply to the upper windows, the dewing can be reduced in this area. See Figure 3 for a ductwork sample layout used in a similar project.

According to the existing architectural drawings and sections shown on the Grace Wang review there was to be a high-level radiator to raise the temperature on the high-level windows. The as-built mechanical drawings however do not show these systems (See Figure 1).

Two options are available to improve the dew point control at these locations. The first option is to introduce a new dehumidification unit located on the adjacent roof and ducted into the space at high level This would require minimal renovation to the existing mechanical systems but will require additional

structure to support the unit. The second option is to modify/replace the existing dehumidification unit. Modifying the existing unit to suit the required airflow and duct layout will require substantial renovations to the space and may not be practical due to its capacity, location & age. Further review of the existing system is required to determine the feasibility of this option.

Chloramine Exhaust:

Additionally, ASHRAE recommends low level capture (floor level exhaust) to ensure contaminants (like chloramines) are exhausted directly out of the space. This would require the addition of a separate low-level grille that ensures the air contaminants are not recirculated into the main dehumidification unit. Typically, these exhaust rates are considered quite large, so energy is usually recaptured through a 'heat recover ventilator' and transferred to preheat the incoming ventilation.

This low-level capture (floor level exhaust) will have minimal impact on the condensation within the space but will have a positive impact on the air quality in the space.

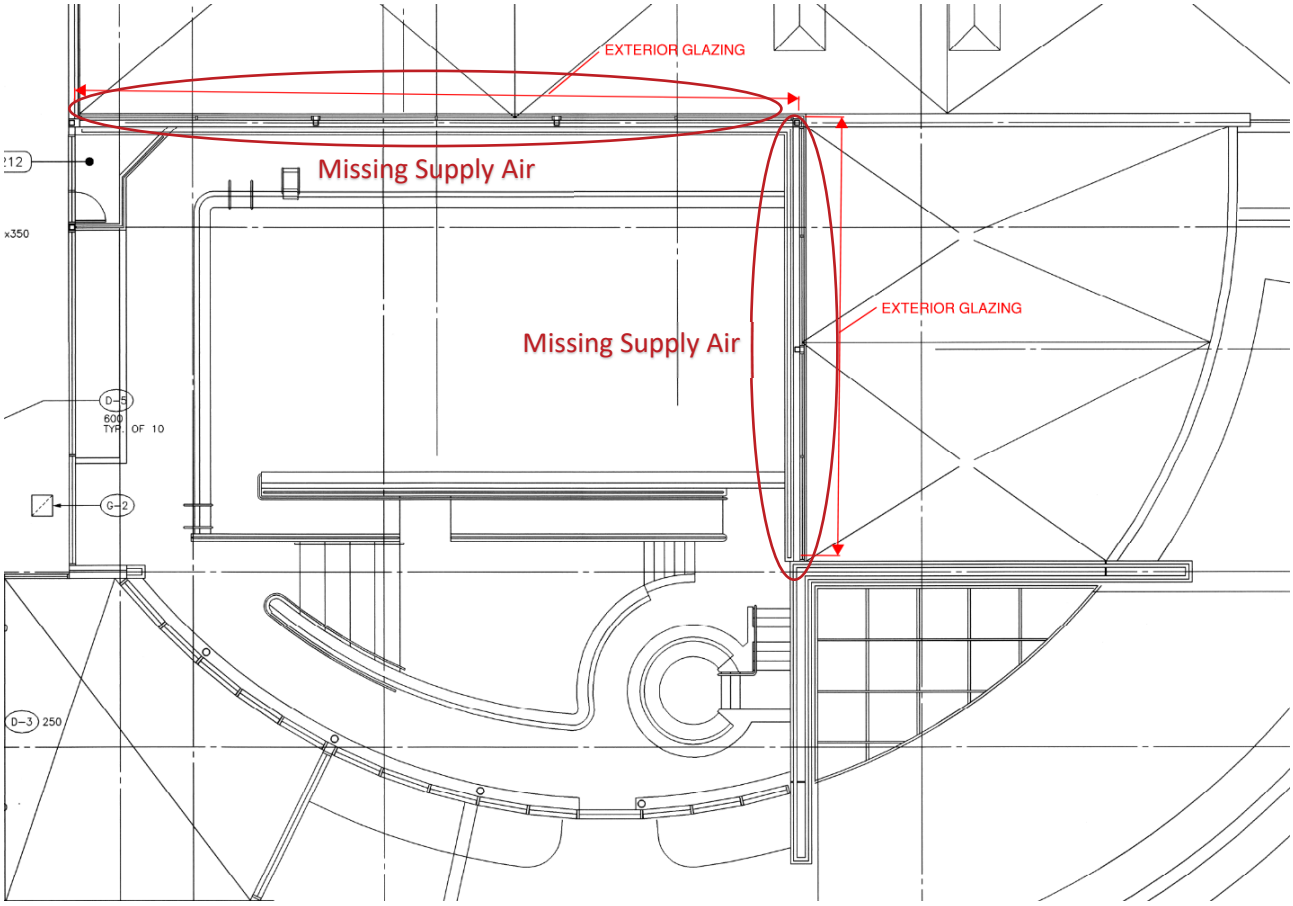


Figure 1 – High Level Glazing

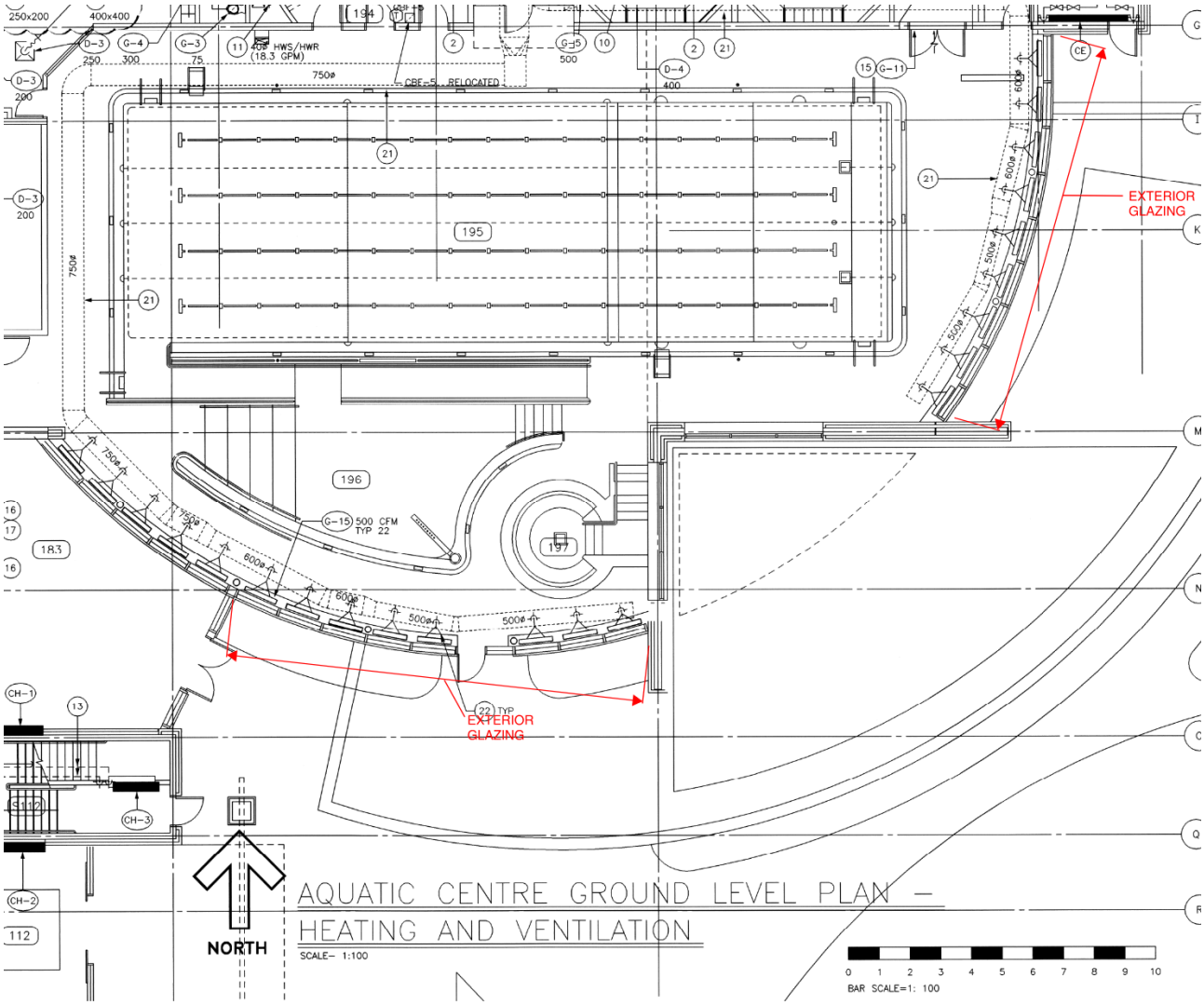


Figure 2 – Low Level Glazing

Part B: Architectural Review

Refer to attached preliminary assessment by Grace Wang Architects (dated April 28, 2023) identifying several areas of concern and the proposed remedial actions.

Recommendations

To limit condensation on the high-level glazing/windows, additional conditioned supply air needs to be delivered directly at the glazing surface. High level ductwork & diffusers hung from the roof structure and designed to provide the required airflow rate at the glazing is required. Refer to Figure 3 for a sample layout used in a similar project.

Two options are available to improve the dew point control. Option 1 is an additional dehumidification unit located on the adjacent roof and ducted into the space. Option 2 is renovating or replacing the existing dehumidification unit and associated ductwork to increase its capacity. Due to the age of the existing unit and location, we do not believe it would be practical to modify the existing unit & ductwork. A further detailed review of the existing unit is required to confirm. With these options, additional dehumidifier features can also be implemented to improve the indoor air quality of the pool facilities, including the introduction of an outdoor air purge cycle and chloramine low level exhaust.

As highlighted in the preliminary assessment from Grace Wang Architect Inc. remediation of the exterior walls and glazing assembly is required. The new wall construction must provide adequate insulation and minimize thermal bridges.

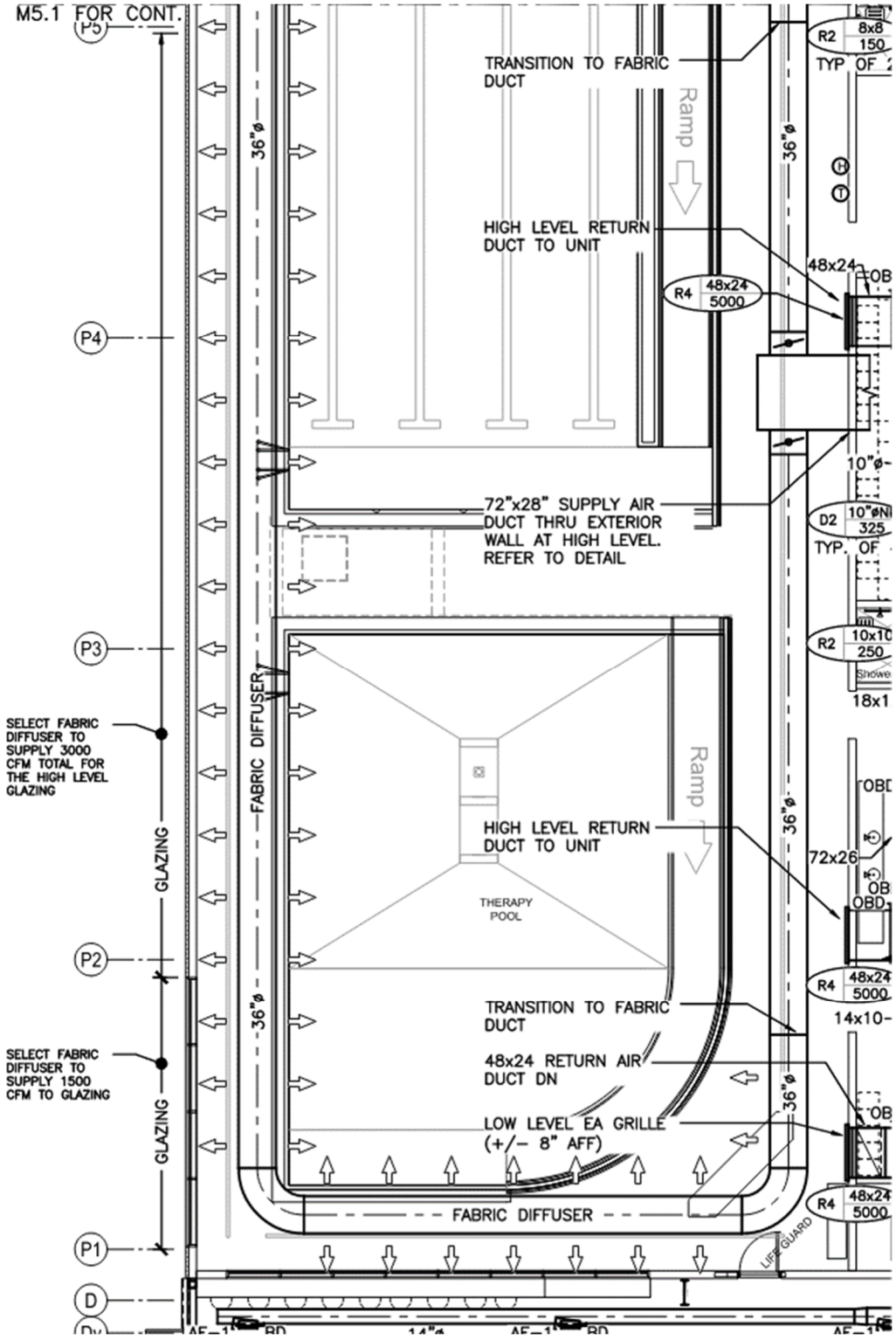


Figure 3 – Sample Fabric Duct Distribution

DRAFT

Grace Wang Architect Inc.

April 28, 2023

Aquatic Design & Engineering
A Division of DEI & Associates Inc.
55 Northland Road
Waterloo, Ontario
N2V 1Y8

ATTENTION: Mr. Jamie Lopes, Senior Project Manager

SUBJECT: St. Marys Pyramid Centre – Deterioration of Exterior Walls at the Auotic Centre

Dear Mr. Lopes,

Per your request, we are writing to provide our preliminary assessment on the likely cause of the deterioration and recommendations for the next steps.

We have reviewed the following background information that you have provided:

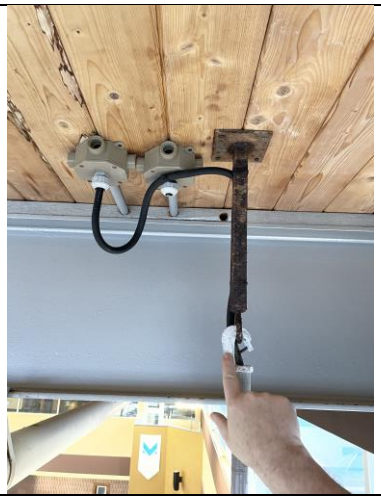
1) As-built drawing set dated May 2006, including:
   Architectural Drawings (51 sheets)
   Landscape Drawings (3 sheets)
   Civil Engineering Drawings (3 sheets)
   Structural Engineering Drawings (16 sheets)
   Mechanical Engineering Drawings (36 sheets)
   Electrical Engineering Drawings (18 sheets)
2) Photos of current exterior wall conditions (45 photos, all dated February 13, 2023)

We have requested the following information but have not received at the time of this report:

1) Specifications issued as part of the Contract Documents
2) Architectural Detail Book that contains 8.5”x11” plan and sections details issued as part of the Contract Documents

We have not visited the site to review the conditions in person.

We understand that the main concerns include the rust abd deteriorations of the structural steel, infill studs and steel brackets attached to wood roof deck. Refer to photos below:



The exterior walls in question are located on north and east sides of the natatorium. They are at high level of the natatorium and with clerestory windows above the adjacent lower roofs. The stud infill walls are identified on architectural drawings as Wall Type E2B with the following composition.

E2B

WALL TYPE – E2B
PREFINISHED HORIZONTAL STEEL SIDING
VERTICAL Z– GIRTS (REFER TO DETAILS)
7S (2.2S RSI) CAVITY WALL INSULATION
AIR / VAPOUR BARRIER
16MM EXTERIOR GRADE SILICONIZEO GYPSUM SHEATHING.
152MM STEEL STUDS AT 400 O.C. MAX. ENGINEERED FOR LATERAL WIND LOADS BY STUD SUPPLIER. STEEL STRUCTURE (REFER TO STRUCTURAL)
16MM SILICONIZED GYPSUM BOARD. (FINISH AS PER SCHEDULE)

The roofs over pool area are identified on architectural drawings as Roof Type R3 with the following composition:

R3

ROOF TYPE – R3
2–PLY MODIFIED BITUMEN ROOF MEMBRANE
SLOPEO FIBRE BOARD (MIN 2% TO ORAIN)
R–20 ROOF INSUL
VAPOUR RETARDER
WOOO DECK (ON 3B X B9 WOOD NAILERS U.N.O.)
PAINTED STEEL STRUCTURE

Based on photos and record drawings, we are of the opinion that the rust and corrosion, mainly on structural steel members and steel studs along the exterior walls of the Aquatic Centre, are caused by moisture breaking through the surface seals and corroding steel substrates.

The probable causes of accessive condensation on Wall Type E2B and on the steel elements secured to the roof deck include:

1) Inadequate insulation causing the interior surface to be much colder than the interior atmosphere. The Aquatic Centre was compled in 2006. The current Ontario Building Code has significantly higher requirements for building thermal performance as illustrated in the following table.

	R-value for existing building	**R-value required under current Code**
Walls (Steel Framed)	R13 (7" Cavity Wall Insulation)	R13 + R15ci More than twice as much insulation required compared to back in 2006.
Roof	R20	R35

2) Possible thermal bridges around window openings. Specifications and details D633 and D637 (not available to us at time of this report) will confirm this assumption. Refer to Figure-1.

3) No air flow on these high walls. Refer to Figure-1 and Figure 2.

Structural steel in pool area is usually protected with 2 coats of zinc-rich primer and 2 coats of surface paint to specified dry film thickness. Steel stud framing in pool area is usually protected by siliconized gypsum board and a special coating to a specified dry film thickness. However, with the surface being constantly wet, water will find a weak spot in the protective film and find the steel substrate and rust it from inside out.

Recommendations:
Retain a prime consultant to

- Determine whether there is any structural damage
- Formulate a comprehensive remediation plan
- Facilitate the remediation work including prepare permit/tender documents and administer the construction contract.

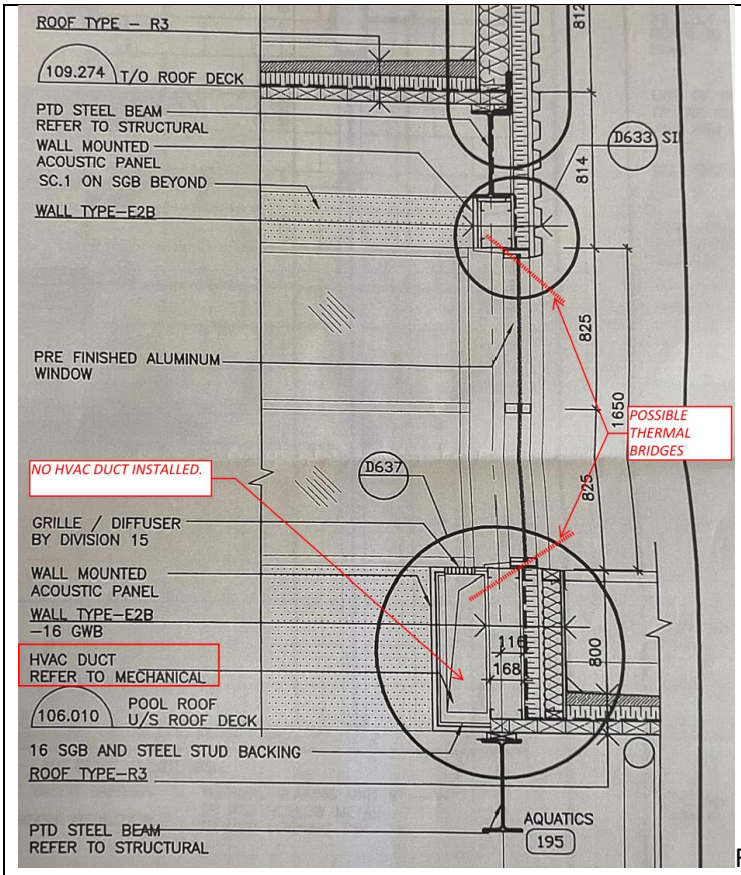


Figure-1

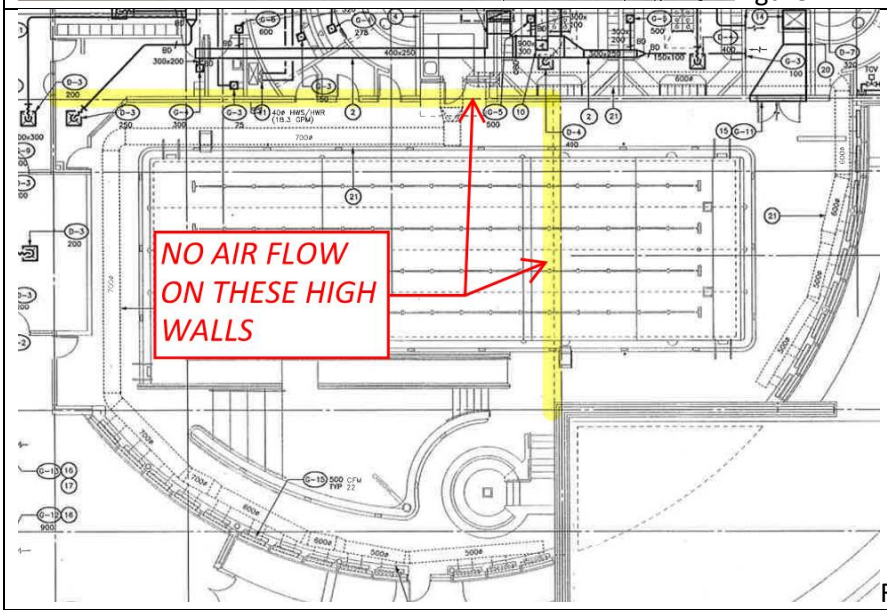


Figure-2

We trust the above opinions and recommendations meet your current purpose. Please advise if you have any questions or concerns.

Yours truly,

Grace Wang, OAA RAIC, ARIDO
Principal

BY-LAW 120-2023

THE CORPORATION OF THE TOWN OF ST. MARYS

Being a By-law to confirm all actions and proceedings of the Council of the Corporation of the Town of St. Marys at its special meeting held on November 21, 2023.

WHEREAS: *The Municipal Act, 2001, S.O. 2001, c.25,* as amended, Section 5(3), provides that the jurisdiction of every council is confined to the municipality that it represents, and it powers shall be exercised by by-law;

AND WHEREAS: The Council of the Corporation of the Town of St. Marys deems it expedient to confirm its actions and proceedings;

NOW THEREFORE: The Council of The Corporation of the Town of St. Marys enacts as follows;

1. That all actions and proceedings of the Council of the Corporation of the Town of St. Marys taken at its special meeting held on the 21st day of November 2023 except those taken by by-law and those required by by-law to be done by resolution are hereby sanctioned, ratified and confirmed as though set out within and forming part of this by-law.

2. This by-law comes into force on the final passing thereof.

Read a first, second and third time and finally passed this 21st day of November 2023.

_____
Al Strathdee, Mayor

_____
Jenna McCartney, Clerk