

**Date:** 2023-09-06

**Subject:** **Zero Carbon Retrofit of Susan Fennell Sportsplex – Budget Amendment and Request to Begin Procurement for Owner’s Advisor**

**Contact:** Rajkaran Singh Chhina – Acting Director, Facilities Operations & Maintenance

**Report Number:** Public Works & Engineering-2023-716

**Recommendations:**

1. That the report from Rajkaran Singh Chhina, Acting Director, Facilities Operations & Maintenance, to the Committee of Council Meeting of September 6, 2023, re: **Zero Carbon Retrofit of Susan Fennell Sportsplex – Budget Amendment and Request to Begin Procurement for Owner’s Advisory Services**, be received;
2. That a budget amendment be approved in the amount of \$11,625,000 for Project # 215511- Susan Fennell Zero Carbon Retrofit; with funding of \$7,500,000 to be provided from External Tax Supported Debt (FCM), \$2,500,000 from Grants (FCM), and \$1,625,000 from Reserve # 91 - Canada Community Benefit Fund;
3. That staff be authorized to proceed with Phase 2 and Phase 3 to implement the Susan Fennell Zero Carbon Retrofit and begin procurement for the Owner’s Advisory Services to oversee project deliverables and objectives;
4. That Council delegate authority to the Commissioner Public Works and Engineering and the Treasurer, to execute on behalf of the City of Brampton the Contribution Agreement in the amount of \$15.7 million approved under the Green and Inclusive Community Buildings (GICB) Program, and to execute any amending agreements, addendums, reports, or any other documents that may be required in connection with said Contribution Agreement, on terms and conditions satisfactory to the Commissioner Public Works and Engineering or designate, and in a form acceptable to the City Solicitor or designate; and
5. That Council authorize staff to enter into negotiations for the loan and grant funding combination awarded through the Green Municipal Fund (GMF) in the amount of \$2.5M grant and \$7.5M loan, and delegate authority to the

Commissioner Public Works and Engineering and the Treasurer, to execute on behalf of the City of Brampton any agreements, amending agreements, addendums, reports, or any other documents that may be required in connection with said funding with or in favour of the Federation of Canadian Municipalities and/or The Regional Municipality of Peel, on terms and conditions satisfactory to the Commissioner, Public Works and Engineering or designate and in a form acceptable to the City Solicitor or designate.

**Overview:**

- **In 2021 the City of Brampton awarded the design of the zero carbon (100% GHG reduction) retrofit at Susan Fennell Sportsplex, which identified GHG reduction technologies to reduce emissions at the Susan Fennell Sportsplex.**
- **A budget amendment in the amount of \$11,625,000 is requested to support Phase 2 and Phase 3 and contract award for Owner's Advisory Services to oversee the retrofit work.**
- **As part of the contractual adjustment period, the City must reach an agreement with the design builder on the cost estimates for the retrofit work by September 28, 2023.**
- **The zero carbon retrofit will phase out 99% of natural gas usage on site and remove 100% of GHG emissions (91% through energy conservation measures and 9% through carbon offsets).**
- **The anticipated construction start date is November 20, 2023 with a duration of 24-months, subject to Council approval. The project schedule will allow for two (2) rinks to remain open at a time during the construction period.**
- **Staff seek Council approval to enter into the funding agreements for the Zero Carbon Retrofit of Susan Fennell including from the Green and Inclusive Community Buildings Program (GICB) in the amount of \$15.7M and from the Green Municipal Fund (GMF) in a loan and grant combination (\$7.5M loan and \$2.5M grant).**

**Background:**

To achieve its environment sustainability and climate change targets, the City of Brampton must reduce GHG emissions from the largest GHG emitting City-owned facilities.

In August 2021, the City issued a Request for Proposal (RFP) seeking an Energy Services Company (ESCO) as a Design Builder to execute a three-phase project at Susan Fennell Sportsplex, with the intent of achieving zero carbon operations at the facility:

- **Phase 1: Feasibility and detailed design development.** This included a feasibility study compliant with an ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers) Level 3 Energy Audit to determine the set of Energy conservation measures (ECMs) to be implemented, followed by a detailed design and Construction Class A cost estimate of the ECMs.
- **Phase 2: Implementation, commissioning, measurement and verification (M&V).** This includes implementing, commissioning the ECMs from Phase 1, developing an M&V Plan and implementing the M&V Plan.
- **Phase 3: Performance guarantee period.** This includes ensuring operational compliance of measures to their design intent and evaluating utility and carbon performance.

In 2021, staff applied to the federal government's Green and Inclusive Community Buildings Program (GICB). The five-year Program supports green and accessible retrofits, repairs or upgrades of existing public community buildings and the construction of new publicly-accessible community buildings that serve high-needs, underserved communities across Canada.

In 2022, staff applied to the Federation of Canadian Municipalities (FCM) Green Municipal Fund which offers loans for capital projects with an additional grant component.

The City's applications were successful and a total of \$25.7M in funding has been awarded as follows:

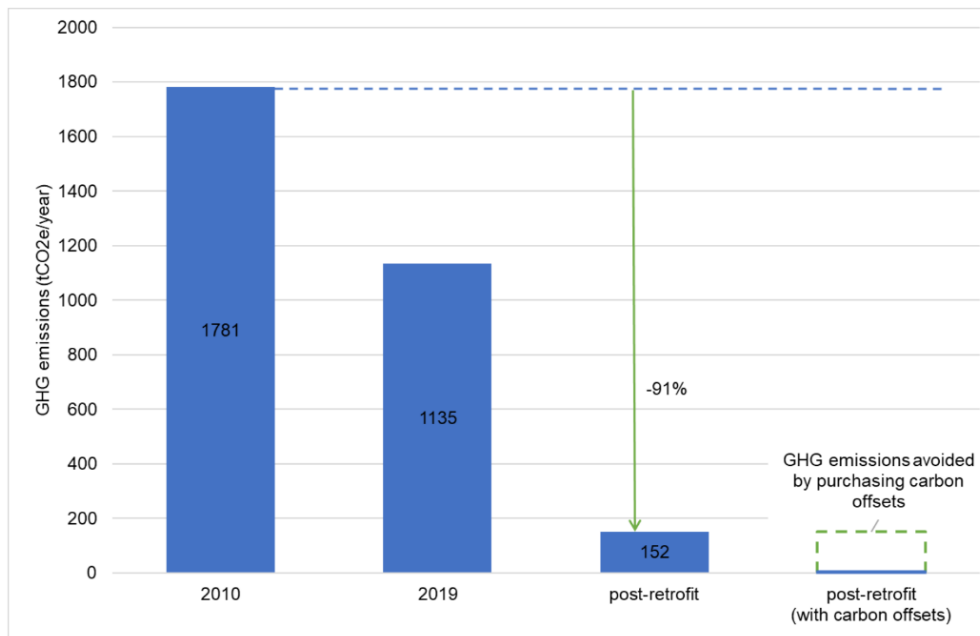
- **GICB:** Approximately \$15.7M awarded (100% grant funding)
- **FCM:** Approximately \$10M awarded (75% loan, 25% grant funding)

### **Current Situation:**

Phase 1 consisted of a detailed feasibility study and detailed design and was completed on June 30, 2023.

GHG emissions are projected (Figure 1) to be 91% below 2010 levels after the implementation of this project, with the remaining 9% of GHG emissions to be offset through carbon offsets from improved forest management projects being completed by a third-party.

Figure 1: Pre-Retrofit vs. Post Retrofit GHG Emissions Summary



The natural gas consumption will be largely removed with this retrofit removing 99% of natural gas usage on site. The remaining 1% of natural gas leftover will be used for back-up purposes including the back-up ice resurfacers (when electric is low on charge) and back-up dehumidifiers.

The annual utility cost savings are projected to be \$194,195/year using 2026 projected utility rates.

A total of nineteen (19) measures including seventeen (17) technical energy conservation measures and two (2) non-technical measures will be implemented under this retrofit project. Major measures include but are not limited to Rooftop Solar PV, Interior and Exterior Lighting Retrofits, Ground Source Heat Loop, Heat Pump Replacement, Air Handling Unit Replacement, and a CO2 Ice Rink Refrigeration Plant. Appendix A provides a summary of Energy Conservation Measures to be implemented at the Susan Fennell Sportsplex.

### Project Cost Breakdown

The total project cost based on the completion of Phase 1 is \$39.14M. Below table summarizes the total cost of the project for all the three phases.

Table 1: Project Cost Breakdown

Phase 1 - Feasibility and detailed design development	\$1,706,185
Phase 2 - Implementation, commissioning, measurement and verification (M&V)	\$32,293,985

Phase 3 - Performance guarantee period	\$74,970
Other costs (including estimates for OA, Project Manager's Salary and contingencies)	\$5,066,030
Total Cost of the Project	\$39,141,170

Price estimates for the Phase 2 provided by the design builder are being held firm until September 28, 2023, as part of the contractual 90 day proposed adjustment period. As the estimates may change after the proposed adjustment period expires, the City shall enter into an agreement with design builder prior to that date through a change order.

### External Funding Requirements

The City is required to enter into a Contribution Agreement for GICB funding under terms and conditions that mandate the project achieve substantial completion by March 31, 2026. In order to ensure all reporting and claim requirements are met, staff aim to complete the project by October 2025.

Given the limited construction window, as well as anticipated delays from long-lead equipment and utility service provider coordination, staff recommend approval to begin Phase 2 of the project, as soon as possible.

The funding approved under the FCM Green Municipal Fund is a \$2.5M grant and \$7.5M loan. To enter into the financing arrangement, staff will engage with FCM and the Region of Peel to meet the requirements of the loan component. A condition of the funding is the grant portion is disbursed in combination with the loan, either as a single disbursement or as multiple disbursements. The term of the loan, timing and number of disbursements must be pre-determined and a borrowing by-law from the Region is required. FCM will supply the rate five days in advance of passing the by-law.

### Owner's Advisory Services

The City is procuring Owner's Advisory Services to oversee project deliverables and objectives during the construction activities. The Owner's Advisor (OA) will provide project management services and technical subject matter expertise in connection with the project. The OA will also oversee project deliverables and objectives, provide payment services, and manage close out and post construction activities.

### Performance Guarantee

Phase 3 will include a two (2) year performance guarantee period for meeting the GHG emission reduction target and ensure the City is able to meet the GHG reduction target specified. In the event of any GHG emissions falling short of the guarantee, the ESCo will be contractually responsible for providing products and services to remedy the shortfall and compensate the City with carbon offsets.

### Recreation Programming

Staff has considered implications of each of the options in regards to the operation of the facility due to impacts to recreation programming, life cycle age of the equipment to be replaced, and payback periods.

A planning session was conducted in June 2023 with stakeholders from Recreation, FOM, and BDC to ensure minimal on-site disruption during the planned construction timeline. It was determined that the schedule would accommodate 2 rinks uptime during the construction phase.

## **Corporate Implications:**

### Purchasing Comments

For the Owner's Advisory services, a Public Procurement Process will be conducted and the Bid submissions shall be evaluated in accordance with the published evaluation process within the bid document. Purchase approval shall be obtained in accordance with the Purchasing By-law.

All communication with Bidders involved in the procurement must occur formally, through the contact person identified in the Bid Document.

### Financial Implications:

As per recommendations in this report, a budget amendment is required to increase the Project # 215511- Susan Fennell Zero Carbon Retrofit by the amount of \$11,625,000; with funding of \$7,500,000 to be provided from External Tax Supported Debt, \$2,500,000 from Grants (FCM), and \$1,625,000 from Reserve # 91 - Canada Community Benefit Fund.

Subject to Council's approval of the budget amendment, the budget for this initiative will increase from \$27,516,170 to \$39,141,170 as shown in the table below:

*Table 2 Project Funding*

<b>Project # 215511- Susan Fennell Zero Carbon Retrofit</b>			
<b>Funding Breakdown</b>	<b>Approved Funding</b>	<b>Budget Amendment</b>	<b>Total Funding</b>
Reserve 30 - Energy Efficiencies	1,420,000		1,420,000
Reserve #4 - Repair &Replacement	3,262,170		3,262,170
Reserve # 91 - Canada Community Benefit Fund	7,134,000	1,625,000	8,759,000
Federal Grants-GICB	15,700,000		15,700,000
<b>Total Funding</b>	<b>27,516,170</b>	<b>1,625,000</b>	<b>29,141,170</b>
<b>Budget Amendment</b>			
Federation of Canadian Municipalities (FCM)-Grant		2,500,000	2,500,000
External Tax Supported Debt (FCM Loan)		7,500,000	7,500,000
<b>Project Total</b>	<b>\$ 27,516,170</b>	<b>\$ 11,625,000</b>	<b>\$ 39,141,170</b>

Furthermore, borrowing of \$7.5M from FCM for this initiative will result in annual repayment requirement and property tax increase, depending on the Council's approval of loan terms options and interest rate offered by FCM as shown in the table below:

*Table 3 Tax Rate Increases*

FCM Loan amount ->		7,500,000		
Loan Term (Year)	FCM Interest Rate *	Annual Payment	Total Payment	Estimated 2024 Tax Rate Increase **
10	4.10%	921,783	9,217,831	0.17%
20	4.54%	574,631	11,492,618	0.11%
30	4.62%	464,507	13,935,204	0.09%

\* The loan rates used for the calculation is as of April 2023, and any change to the rate for the FCM loan would change the loan repayments and estimated property tax impacts.

\*\* The 2024 tax rate calculation assumes 1% assessment growth.

Timing of actual debt issuance and the associated repayment will be aligned with the cash flow requirements of this project, which are anticipated to be incurred over a two and half year time frame; subject to Council directive for construction works beginning in late 2023.

The 2023 Budget included approval of a 3-year capital program and funding plan, which maximized the allocation of anticipated funding availability across planned projects. The approval of this amendment will require reprioritization of capital projects forecasted to be funded against Reserve # 91 - Canada Community Benefit Fund.

#### Legal Implications

Legal will assist as needed with the necessary agreements.

#### **Strategic Focus Area:**

Environmental Resilience & Sustainability: The zero carbon retrofit of the Susan Fennell Sportsplex will further the City's role as a leader in creating sustainable facilities, and as champion of energy conservation and GHG emissions reductions.

#### **Conclusion:**

This report seeks Council approval for proceeding to Phases 2 and 3 with a budget amendment of \$11,625,000 and that the Purchasing Agent be authorized to commence the procurement for an Owner's Advisor. Staff also seek Council approval to enter into funding agreements to obtain GICB and GMF funding for this project.

Authored by:

Reviewed by:

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**Attachments:**

- Appendix A: Summary of Energy Conservation Measures