

Memorandum

Date: Tuesday, December 8, 2020

To: Members of Council

From: Sherry Brake, Senior Project Manager, Corporate Strategy and Innovation

Subject: Green Building Approach for the Caledon East Community Complex Expansion Project

The purpose of this Memo is to notify Council that the Caledon East Community Complex expansion will be designed to the new draft Corporate Green Building Standard.

Corporate Green Building Standard

The Town's current Council-approved Corporate Green Building Standard (CGBS) requires that all new Town-owned facility construction or major renovation projects over 10,000 square feet achieve a certification level of LEED Silver. The Town's CGBS is currently undergoing an update, as it has been in place since 2012 and the standards are no longer in line with industry best practice. As a result, staff have been reviewing the CGBS and will be recommending that the Town move towards a performance-based approach. This will allow the Town to reinvest the cost of the LEED program back into the performance of the building which supports and maintains long-term energy and emission targets. The results of the CGBS review are scheduled to be brought to Council for consideration in Q2, 2021.

Opportunity with the Caledon East Community Complex (CECC) expansion

CECC will be undergoing an expansion to add amenities including but not limited to a swimming pool, a new full-service fitness centre, a multi-purpose gymnasium, and library. The design for the expansion is anticipated to begin early in the new year and is currently subject to the Town's current CGBS.

To ensure the expansion meets current timelines, remains on budget and maintains a focus on limiting its emissions in the future, staff will be working towards a design of the expansion that aligns with a performance-based approach as outlined in this Memo. A performance-based approach for the expansion has the following benefits:

- Facilities with pools are among the highest energy users in the Town's building portfolio, due to the energy it takes to heat the water, meet regulated pool water turnover rates, manage humidity and ensure occupancy comfort. It is at this stage that the Town can avoid "locking" itself into long term emissions from the building.
- It will allow for more flexibility with the design of CECC to incorporate the various elements without losing the focus on the Town's environmental commitments.
- It is more cost effective to do it as this time then to retrofit it later.

- Designing the CECC expansion with the draft new CGBS will allow the Town to be a leader and demonstrate its climate commitments, with the recent declaration of a climate change emergency and a Council-endorsed community GHG reduction target of net zero by 2050.

A performance-based approach establishes specific energy and emissions targets that are unique to each building type in the Town's building portfolio.

The benefits of a performance-based approach are as follows:

- Improved energy efficiency and reduced operating costs: Total energy use intensity targets for the building will lower the overall energy that will be consumed and reduces potential energy waste;
- Reduced greenhouse gas (GHG) emissions: use of low-carbon fuel choices that reduce lifetime building emissions;
- Long-term financial benefits: it is more economically feasible to design a building to be energy efficient and low carbon at the design stage, rather than to construct the building to incur retrofit costs after it has already been built. A performance-based approach also allows for Town investments to be fed directly into the building's performance, rather than certification costs or items that do not enhance the building;
- Flexibility in Design: a performance-based approach allows for more flexibility from building designers and architects to meet the energy and emissions targets, compared to prescriptive building approaches that provide an itemized list of building design requirements, that may not provide a solution that is best fit for the building;
- Alignment with other Municipalities: The City of Mississauga endorsed a performance-based Corporate Green Building Standard in 2019, and the City of Toronto's Zero Emissions Building Framework also follows a performance-based approach. Canada's National Building Code is currently being updated and is also expected to follow a tiered performance-based approach, similar to the Province of British Columbia's STEP Code. The Government of Canada has also committed to a net-zero energy ready model building code by 2030, of which a tiered-performance standard will help to transition the construction industry towards.

Next Steps

Staff will be working with the design firm to ensure the options for expansion for the Town's consideration include a long-term performance-based approach that considers and aligns with the proposed changes to the CGBS that will come forward in 2021.