



Student Design Competition: Small housing for sustainability

Canada is simultaneously facing two disruptive 21st Century challenges 1) in light of a growing population, there is an increasing need for housing and supportive infrastructure and 2) the need to reduce consumption to achieve greenhouse gas (GHG) emissions in line with 2030 and 2050 climate commitments. Neither is optional, and yet we are falling short on both. Canada's population is growing faster than any other G7 country, meaning this challenge is particularly acute here.

Research has shown that living smaller is critical to meeting both housing and sustainability goals. Canadians currently have one of the largest housing footprints in the world with 60 m² of space per person. Global sufficiency studies call for 10 - 15 m² per person. The United Nations International Resource Panel calls for Canada to transition to no more than 35 m² per person by 2060.

This is a design competition to design small housing that is also appealing to live in while considering the repeatability and stackability of design given the need to build a lot of housing quickly.

Semi-Finalists will be invited to present their designs at the [Embodied GHG Symposium](#) held at the University of Toronto on May 13th, 2024, where the winner will be announced. **The winning team will be selected at the event and will receive \$2000** (to be divided equally between all team members, see eligibility conditions below).

Submission must be saved in a Onedrive or Dropbox folder and a link to said folder emailed to hoda.touma@utoronto.ca by May 5th 2024 at 5 pm EST. The email must come from a recognized Canadian University or College email address. The email should be titled CSBE Design Competition: 'last names of team members'.

Submissions should be PDFs formatted on A1 boards and must include:

- 1) Unit plan with furniture 1: 50 scale
- 2) Interior perspective views – minimum of 2
- 3) Massing plan of typical floor in multiunit version showing repeatability/stackability 1:200 scale (must include circulation areas as necessary).
- 4) Project statistics: 1) for individual unit: unit area, bedroom count, envisioned occupant count per unit
2) for massing plan: GFA, number of units, floor plate efficiency
- 5) Project description max 350 words: Descriptions should focus on functional use of space, how the units would be combined to make higher density buildings, and any discussion of code/standard modifications.

Designs do not need to follow building codes, if modifications of buildings codes and standards are chosen further points will be given if clear justifications are included. The reference location can be anywhere in Canada. The selection location should be stated in the project description.

Scoring:

Submissions will be evaluated on 4 metrics

- 1) Space efficiency. Maximum allowable size is 35 m²/person, please design as if no space is too small down to under 15 m²/person.
- 2) Universal design. Universal design is ideal however any building code or similar standard may be modified in submissions in a trade off with other goals. Comment on modifications in the accompanying write up.
- 3) Livability and functionality of proposed homes. Quality of design, accommodation of needs in modern housing (e.g. light, air, privacy, communal space, the activities of daily life).
- 4) Repeatability/stackability. The units proposed should be integrated into multifamily buildings of higher density. This has impacts on issues like number of walls with windows.
- 5) Submission's ability to engage the public. How clearly is the idea presented? Is the presentation accessible to a non-expert audience.

It is expected that there will be tradeoffs between the criteria. Part of the exercise is to engage with that tension. It is unlikely that a submission will score tops on all of criteria 1 through 4.



Judging Panel

Shirley Blumberg is a founding partner of KPMB Architects and a Member of the Order of Canada for contributions to architecture and community. She has designed many of the firm's noteworthy and award-winning projects which range in scale from interiors to architecture and planning.

Alex Bozиковic has been the Architecture Critic for The Globe and Mail since 2013. His books include Toronto Architecture: A City Guide; House Divided; and the bestseller 305 Lost Buildings of Canada. He was one of the first people to call for the reemergence of the missing middle.

Sam Dufaux is a principal at SvN Architects + Planners and an Assistant Professor, Teaching Stream, at the John H. Daniels Faculty of Architecture, Landscape, and Design at the University of Toronto. His work and research focus on how to live within our planetary boundaries.

Samantha Eby is an Architect and Researcher. She is the Project Manager for ReHousing (<https://www.rehousing.ca>), a research initiative focused on converting single-family homes into multi-unit housing and an Adjunct Professor at the University of Waterloo. In 2020, Samantha received the Prix de Rome in Architecture for Emerging Practitioners.

Tura Cousins Wilson is a founder of The Studio of Contemporary Architecture (SOCA). The studio is the recipient of the [2023 Professional Prix de Rome in Architecture](#), a travelling grant allowing the studio to explore sites of Black joy and community globally. Tura's professional experience and interest span a variety of scales including exhibition design, multi-unit housing, private homes, cultural spaces, and urban design

Eligibility

Must be a registered undergraduate or graduate student at a [Canadian University or College](#) in the 2023/2024 academic year.

At least one member of the team must be available to attend and present on May 13th at the Embodied GHG Symposium <https://www.eventbrite.ca/e/embodied-ghg-symposium-tickets-836035924957>

Students are responsible to check their own eligibility to receive the award according to any of their home institution policies if needed, and ensure they are compliant with any held work/study permits in receiving T4 income from the University of Toronto.

Group size must be between 1 and 4 students. All work must be that of the group members only.

Terms and conditions

By submitting you agree that your submission may be posted on the CSBE website and included in communication about the Embodied GHG Symposium, School of Cities newsletter and similar. You otherwise retain full rights to your design and no commercial use will be made by the CSBE or the School of Cities.

Any questions can be direction to Shoshanna Saxe at s.saxe@utoronto.ca