Attachment 1

Overview of Key Civic Innovation Lab Initiatives

Project 1: Dementia-Inclusive Streets And Community Access, Participation and Engagement (DemSCAPE)

Overview:
The Dementia-Inclusive Streets And Community Access, Participation And Engagement (DemSCAPE) [1] initiative is led by Dr. Habib Chaudhury at SFU's Department of Gerontology, in partnership with scholars from the University of British Columbia (UBC) and the University of Northern British Columbia (UNBC). Funded by the Public Health Agency of Canada (PHAC) and the Alzheimer Society of Canada, this interdisciplinary community-based research project engages people living with dementia to discover what barriers exist in the built environment and what improvements can be made. A key achievement is the publication of a set of design guidelines entitled the 'Age and Dementia-Inclusive Planning and Design Guidelines', which provide input to urban planners and policy makers on how to design inclusive communities for those with dementia and other physical and cognitive disabilities.

Timeline and Budget:
DemSCAPE is an approximate $1.5 million, multi-year funded project with primary funders the Public Health Agency of Canada and the Alzheimer Society of Canada. Burnaby involvement began via the Lab in 2022.

Engagement:
Through the project local seniors living with dementia and their care partners were engaged to walk through selected areas of the Burnaby pedestrian environment (e.g. Lougheed between Rosser and Willingdon) to assess it from a cognitive disability perspective. These learnings contributed to the development of the design guidelines referenced above and provided valuable insights for Burnaby staff to inform City efforts in improving the pedestrian and wayfinding experience, both at this particular location(s) and broadly across the city.

Project 2: Flocculant Analysis

Overview:
In collaboration with the City of Burnaby Engineering staff (Drainage and Development), Lab staff have brokered a working relationship with the Fowler Lab at SFU, led by Dr. Jane Fowler, with Dr. Vicki Marlatt, both from the Department of Biological Sciences. This collaboration is investigating additional environmentally acceptable flocculants that could be utilized by the City and by private developers to limit and manage development site run-off into local watersheds, particularly during extreme weather conditions.

1 For more information, please visit: www.sfu.ca/demscape.html

Wastewater samples have been drawn from Cameron Community Centre construction site, with the support of the City's Engineering staff (Drainage), to support exposure tests in the lab.

Timeline and Budget:
This work is being supported by a $30k Mitacs Accelerate internship grant. The research was initiated in December 2024 and will conclude in Spring 2026. This project was highlighted at the recent December 8, 2025 Simon Fraser University Liaison Committee meeting.

Engagement:
Work to date for this project has largely been technical and lab-based. Researchers are working closely with relevant City staff to ensure the relevance and adoptability of the findings into civic policy and guidelines.

Project 3: **REACH-Cities Project**

Overview:
REACH-Cities[2] is a project funded by the Canadian Institutes of Health Research (CIHR) and led by Dr. Meghan Winters from the SFU Faculty of Health Sciences. The work focuses on identifying and implementing practical ways to embed equity considerations into city planning processes. REACH-Cities partners with a similar project, City Shift[3], which is led by the non-profit organization YWCA Metro Vancouver and funded by Women and Gender Equality Canada. This partnership was brokered by Lab staff.

Via these partnerships, and with direction from Council, Burnaby utilized the policy analysis tool Gender Based Analysis+ (GBA+)[4] within the recent Edmonds, Royal Oak, and Cascade Heights community plan renewal processes (adopted by Council at its March 22, 2025 meeting). At its August 26, 2025 meeting, Council approved expanding a GBA+ informed approach to all high-level City plans and strategies requiring Council approval. Early internal implementation activities have begun and Council will be kept informed.

Timeline and Budget:
Burnaby City Council approved Burnaby's participation in the 7-year REACH-Cities project, enabled via the Lab, at its December 12, 2022 meeting. The REACH-Cities project is funded via a $1.15 million Canadian Institutes of Health Research (CIHR) grant.

2 For more information, please visit: www.sfu.ca/reach-cities.html
3 For more information, please visit: ywcavan.org/ywca-city-shift
4 For more information, please visit: women-gender-equality.canada.ca/en/gender-based-analysis-plus.html

Engagement:
Support for staff to implement the GBA+ framework will be provided through the development of an engagement strategy and implementation toolkit. Development of such a toolkit was approved by Council at its June 10, 2025 meeting as part of the reconciliatory actions referenced in the 'Community Engagement on Reconciliation for Historic Discrimination Against Chinese Canadians' concluding report. The strategy is intended to inform development of learning opportunities for staff to support this work, and to serve as a mechanism to share best practices across City departments. This approach will be augmented by development of a library of training opportunities to provide staff with options for instruction. Lab staff will also be available for periodic consultation as required.

Project 4: SORTABO - Sustainable Heat Transformation Technologies

Overview:

The City, via the Lab, is involved in a pilot of patented sustainable heat transformation sorption technology (SORTABO) developed by professor Dr. Maji Bahrami of the SFU School of Mechatronic Systems Engineering. The technology functions as a waste-heat driven heat pump/air conditioner and long-term thermal storage system that improves the efficiency of district energy systems and conventional building heating systems. The technology converts waste heat into cooling, enabling sustainable air conditioning without the need for electricity, and with no moving parts or harmful chemicals. A demonstration unit was installed at City Hall in August 2025[5]. Following a period of data collection and refinement, a larger prototype is being developed.

Timeline and Budget:
The project has a five-year duration, with funding consolidated in 2023 and active work launched January 2024. The overall project value is $2.3 million with contributions from the Natural Sciences and Engineering Research Council of Canada (NSERC), and MITACS, which is an innovation focused, cross-Canada initiative that co-funds student internship opportunities with funding from higher levels of government and other partners. The City of Burnaby is contributing $120,000 a year over the five-year project period to a total of $600,000. This contribution was approved by Council at its meeting of February 27, 2023.

Engagement:
Work to date has largely been technical and lab-based. However, SFU and the City worked together on a media strategy to mark installation of the recent prototype at City Hall, which resulted in several media highlights. As the project continues, additional press and public education opportunities will be pursued.

5 For more information, please visit: www.burnaby.ca/our-city/news/2025-08-12/sfu-burnaby-unveil-waste-heat-energy-innovation-redefine-urban