Summer 2021 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the Sustainability Scholars Program website to learn how the program works and to apply.
- Be sure to review the application guide to confirm your eligibility before applying.

Applications close at midnight on Sunday January 31, 2021.

Research project title
Feasibility of recycling and reusing demolition materials found in single-family homes built after 1970 and commercial buildings in Metro Vancouver.

Project description

Overview:

Materials generated from construction and demolition (C&D) activities represent almost one third of disposed waste in Metro Vancouver. Metro Vancouver's Integrated Solid Waste and Resource Management Plan (the plan) includes regional diversion goals and actions to reduce the quantity of waste generated within the region, including C&D.

Even though the C&D sector already experiences high diversion rates due to concrete and asphalt recycling, wood products are still the largest component of C&D waste going to landfills and could potentially be recovered at earlier stages.

In recent years, eight municipalities across Metro Vancouver have implemented demolition waste recycling requirements. Some of these municipalities, such as the City of Vancouver, have focused on single-family homes that contain old growth lumber and unique architectural elements for salvage and materials that can be readily recycled in the region. Under the Green Demolition Bylaw, single-family homes built before 1950 must reuse or recycle at least 75% of demolition materials. The City expects a final expansion of the bylaw to all homes once sufficient market capacity in the region is identified. However, the City is concerned that certain materials used in homes built after 1970 may not be recyclable to the standards required under the bylaw.

In the 1970s, important architectural and structural changes took place in the construction of single-family homes, including increased house size and different types of building products. For example, materials that use glue and are challenging to recycle, such as plywood and particle board, widely replaced lumber in different uses in construction of wood-framed houses.

Municipalities with new housing stock may not be viable markets for salvaged lumber, if deconstruction is required for single-family homes built after 1970. Alternatively, jurisdictions in this situation could focus on commercial buildings, such as warehouses built with large timbers.

Purpose of the Project:

Identify the type, quality and potential for reuse and recycling of building materials, and estimate the quantity of salvageable lumber found in single-family homes built after 1970 and commercial buildings in Metro Vancouver.

The outcomes of the study will help inform Metro Vancouver and its member municipalities if reuse and recycling of materials in newer homes and commercial buildings is feasible in the region, and identify actions and strategies to engage the C&D industry stakeholders during the review process of the solid waste management plan.

Deliverables

The Scholar will deliver a final report containing a summary of findings of their completed work, complemented by a final presentation to Metro Vancouver staff and key stakeholders. The report should include:

- A feasibility study identifying the type, quality and possibilities for recycling or reuse of building materials found in single-family homes, built after 1970 and commercial buildings in Metro Vancouver, including a gap analysis for materials that are hard to recycle.
- Summary table of type and quantity of potentially salvageable lumber products found in single-family homes built after 1970 and commercial buildings in Metro Vancouver.
- Summary report of interviews with stakeholders
- A final report or executive summary (if the report contains confidential information) for the UBC Sustainability Scholars online project library.

Time Commitment

- This project will take **250** hours to complete.
- This project must be completed between **May 3 and August 13**.
- The scholar is to complete hours between **8:00 am and 4:30 pm, Monday to Friday,** approximately **20** hours per week.
- All research must be conducted remotely and the scholar is to share bi-weekly updates on progress through emails or phone calls.

Required/preferred Skills and Background

☒ Excellent research and writing skills
☒ Demonstrated interest in sustainability
☒ Familiarity with research methodologies and survey techniques
☒ Strong analytical skills
☒ Ability to work independently
☒ Project management and organizational skills
☒ Demonstrated experience or familiarity with construction industry
☒ Comfortable interacting with strangers to conduct public surveys
☒ Familiarity preparing feasibility studies

Applications close **midnight Sunday January 31, 2021**
Apply here: Click here to apply
Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 19. Click here for details and to register.

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae

https://www.grad.ubc.ca/current-students/graduate-pathways-success

https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services