

## 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.**

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### **Research project title:**

Mitigating industrial land use impacts through building and site design

### **Project description:**

The Climate Emergency Action Plan lays out ambitious targets to fight climate change and cut carbon pollution. As part of this plan, Big Move 1 highlights the need to develop complete communities that produce less carbon pollution from transportation and buildings while supporting local businesses. City-serving industrial uses within the city play a significant role in reducing the movement of goods and reducing transportation carbon emissions while providing local-serving production, repair and distribution needs.

Demand for industrial space during the pandemic has increased within the city, while industrial land supply in Vancouver is constrained. In order to meet needs and expand the supply of industrial floor space, the City seeks to balance the intensification of industrial lands while considering the impact on surrounding communities. The Employment Lands and Economy Review (ELER) provides policy direction to support the development of multi-storey, employment-intensive industrial built forms that provide additional space for city-serving production, distribution and repair activities while allowing for the co-location of other compatible uses. ELER provides policy direction to intensify in the Marine Landing Area in South Vancouver by enabling greater heights and densities for job only space than what is allowed in the Marpole Community Plan.

This research project focuses on compatibility issues between land uses and providing building and site design recommendations to mitigate these issues. This work will play a critical role in developing a comprehensive approach to how the City undertakes land use planning for employment areas and adjacent communities.

The Economic Development Planning team is developing a compatibility index that will inform land use policy decision making to assist in the modernization and flexibility of the city's industrial uses. The index will assess compatibility between a mix of land uses and public space within zoning districts and neighbourhoods, adjacent sites, and within buildings. Primarily focused on the assessment of industrial uses adjacent to and mixed with commercial and residential land uses, the index will assess a variety of compatibility factors and metrics to determine operational and market impacts, building and site requirements, and the compatibility of site and building location and adjacency to determine land use

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compatibility. Compatibility metrics will include odour, pollution, noise, vibrations, market impacts and other impacts on nearby spaces and sites.

## **Scope of work:**

The scholar will research and compile a brief best practises and literature review of academic publications and government policy on design elements that mitigate land use compatibility. This may include city land-use policies and regulations, building code, design guidelines and methods for identifying site constraints.

The scholar will conduct informational interviews with City staff in various departments to collect information and feedback existing policy and regulation, concepts and ideas to understand how the research and findings can be incorporated into existing and future planning programs.

Based on the literature review and interview research, the scholar will compile an inventory of recommended building systems, design and site orientation methods to mitigate negative impacts of land uses to ameliorate compatibility and improve emissions for nearby land uses and public spaces.

The scholar will present design recommendations for a variety of industrial and mixed-use building typologies, including stacked industrial, industrial/residential mixed-use buildings, and other manufacturing and warehouse/distribution buildings where compatibility can be improved through design.

## **Deliverables:**

- Literature review and best practices (academic publications and government policy on design mitigation to improve land use compatibility)
- An inventory of building and site design elements that can help mitigate industrial land use nuisances and ameliorate land use compatibility.
- Design recommendations for a variety of industrial and mixed-use building typologies.
- Presentation of research and findings to the Economic Development Planning Team and other staff as applicable.
- A public facing final report for the UBC USI website summarizing findings.

## **Time Commitment:**

- This project will take 250 hours to complete.
  - 10% literature/policy review and best practices
  - 30% Inventory of design mitigation elements
  - 15% Examples of design recommendations for industrial building typologies
  - 45% Final Report/Presentation
- This project must be completed between May 3 to August 13, 2020
- The scholar is to complete hours between 9am and 5pm, Monday to Friday, approximately 20 hours per week.

## **Required/preferred Skills and Background**

- Excellent research and writing skills
- Demonstrated interest in sustainability
- Familiarity with research methodologies and survey techniques

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- ☒ Statistical analysis
- ☒ Excellent public speaking and presentation skills
- ☒ Strong analytical skills
- ☒ Ability to work independently
- ☒ Deadline oriented
- ☒ Project management and organizational skills
- ☒ Strong technical and drafting skills
- ☒ Demonstrated experience in Architecture
- ☒ Familiarity with benchmarking methods and tools
- ☒ A good understanding of building systems, architecture, urban design and/or green buildings would be an asset.

Applications close **midnight Sunday January 31, 2021**

Apply here: [Click here to apply](#)

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto: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>