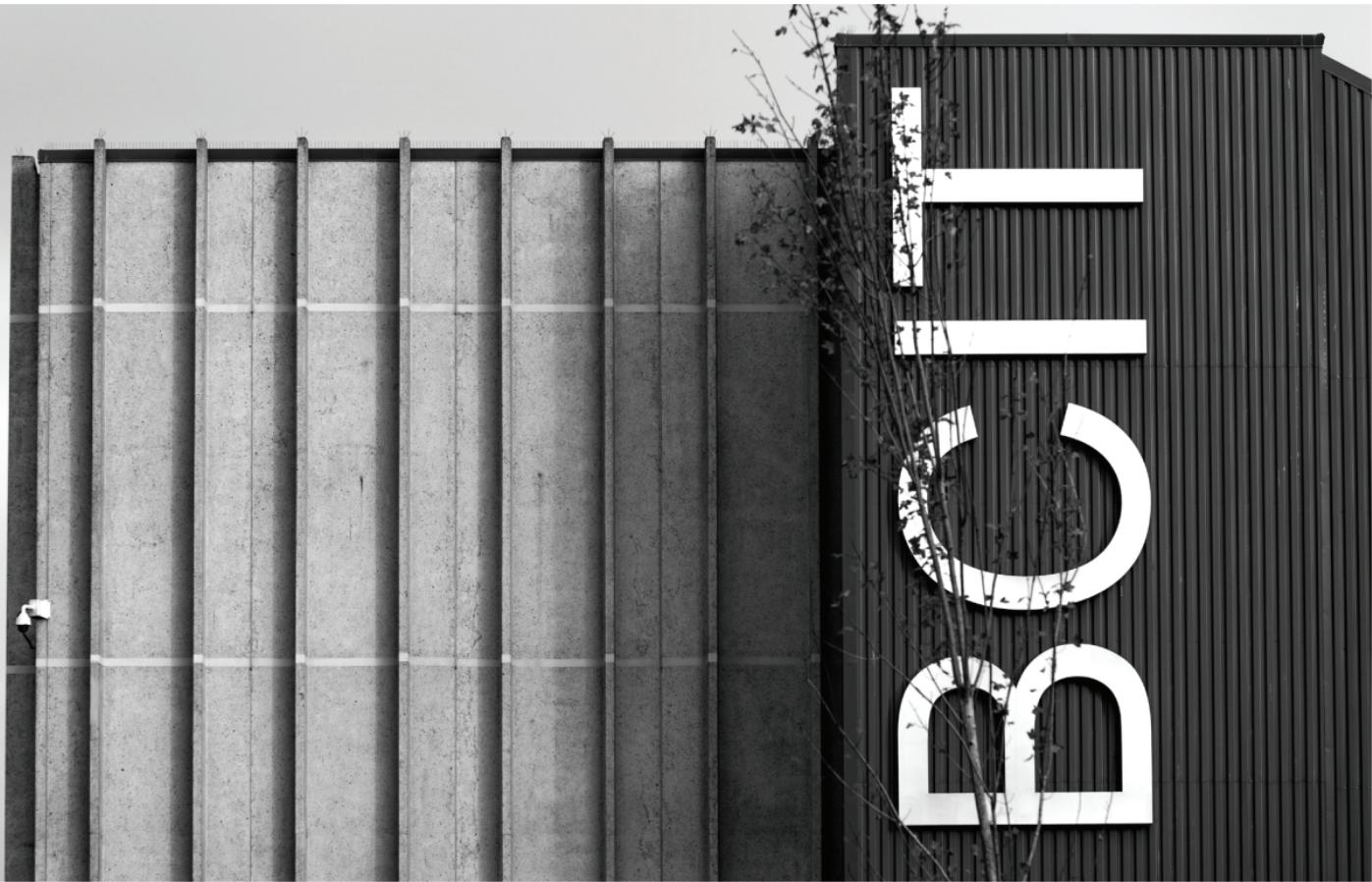


False Creek Flats

Bachelor of Architectural Science
Class of 2017



Architectural Science

Architectural Science is a studio-based undergraduate architectural program at British Columbia Institute of Technology. Bridging design theory and construction practice, projects combine the creative and technical aspects of architecture. Students are encouraged to merge building technology and design concepts using applied research, discussion, performance analysis, sketching, and mixed-media modeling. Exploring ideas and innovations about architecture and the built environment, students develop sustainable design concepts integrating building science, tectonic detailing, and structural and mechanical systems.

In collaboration with the City of Vancouver's student innovation hub, CityStudio, the graduating class of 2017 envision the revitalization of the False Creek Flats district. Students design group master plan interventions and individual projects in response to the existing context and Greenest City goals to propose a truly sustainable urban fabric.

Masterplan A



Lucas Druet



Ryan Gillespie



Liam Hayward-Mills



Emily Huser



Cassandra Koechlin



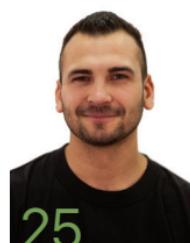
Andrew Martins



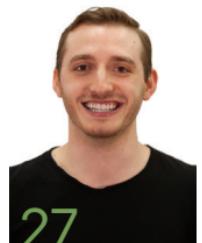
Christopher Money



Curtis Renning



Benjamin Smith



Alex Stringer



Lucas Stringer



Maggie Yip

Masterplan B



Darrin Chen



Kent Chiou



Taylor Gauley



Joel Laurino



Justin Liu

The graduating students propose two master plans to contextualise their individual thesis projects and are organized by master plan.



Johnathan Lum



Aaryn Ma



Wilrose Pingol



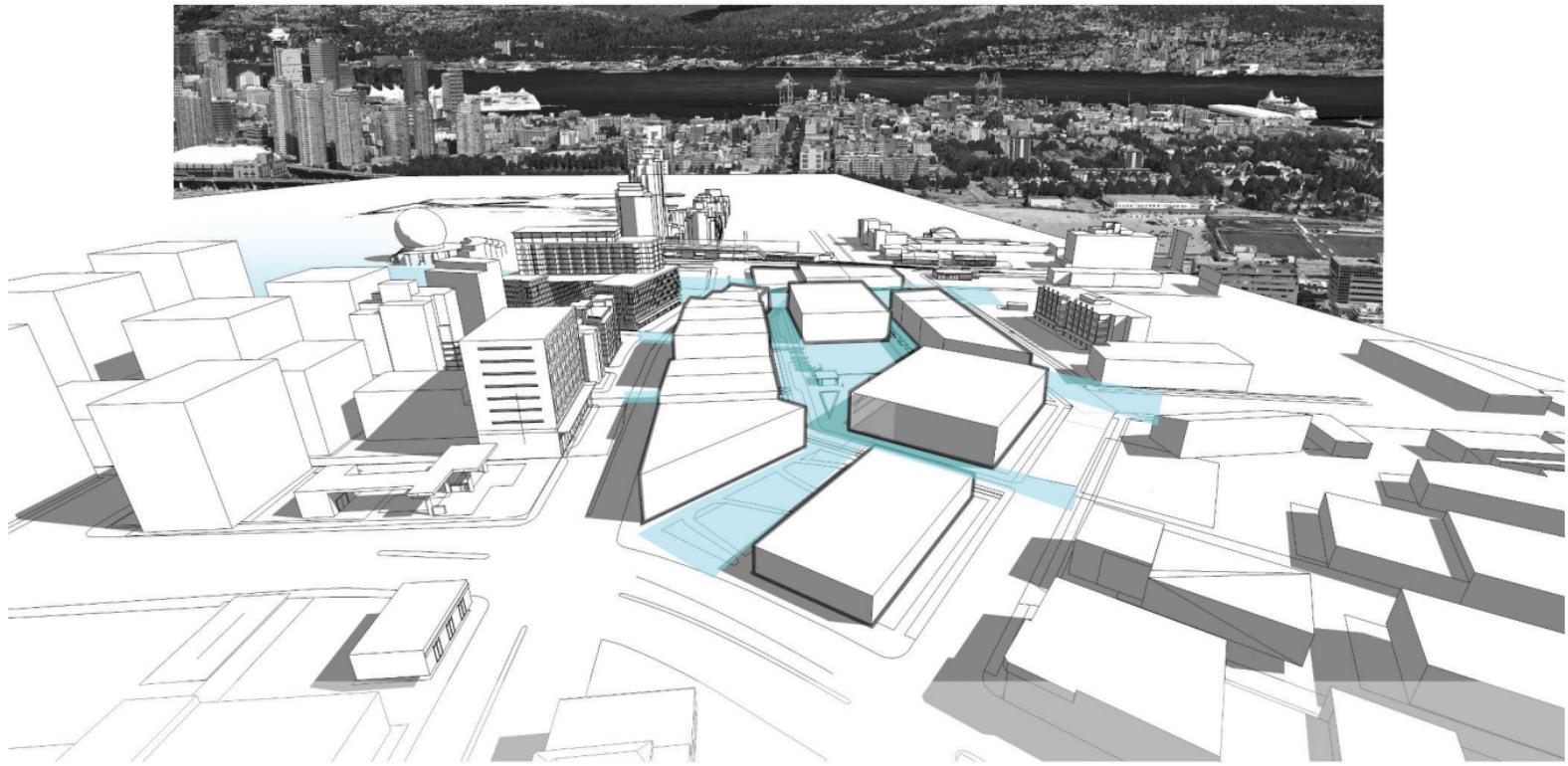
Michael Sayachack



Steven Schmidt



Katreena Tecson



Masterplan A

This masterplan strives to create a sustainable neighbourhood plan which addresses the area's unique social, economic, and ecological issues. The urban context is revitalized by creating a sense of community surrounding a central plaza, and by facilitating greater connections to the rest of Vancouver. Opportunities for affordable housing, urban agriculture and locally sourced food options create a walkable neighbourhood. Economic growth is addressed with the addition of creative work spaces which respect the existing arts and crafts culture.

The plan also introduces natural stormwater management through a system of bioswales and an urban wetland which connects to False Creek and aims to restore native ecological habitats. Finally, the entire neighbourhood is connected by a district energy system which practices a waste to energy model: collecting waste, recycling and blackwater and turning it into potable water and energy.



Lucas Druet

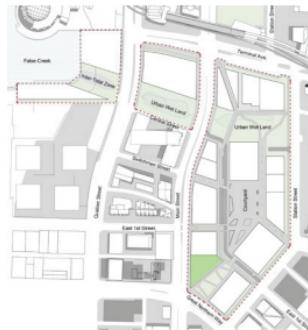
MakeLocal

Having the means to express, promote, and develop the creative spirit of Vancouver is imperative to the cultural sustainability of the city's communities. The tools and knowledge through which to express such an identity should be easily accessed by the community. MakeLocal offers prospective and established artists with the tools, knowledge, and environment to practice their craft. The building itself acts as a light, permeable shell that contains open workshops placed around enclosed conditioned rental studio spaces creating a dynamic interconnected floor space. An immersive retail space along main street showcases the skills of the local community and the accessibility of the talent. MakeLocal facilitates the cross-pollination of creative energy to sustain a creative Vancouver.



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Ryan Gillespie

FLATSFOOD

I believe that architecture's role in sustainability is to frame and enrich the rituals of everyday life, by creating a more lucid experience of place, resources, and relationship to nature. FLATSFOOD addresses how we eat sustainably in the city by bringing the rituals of food: growing, cooking, eating, and distributing, back to a place of cultural importance. The ground floor is a permeable, flexible, public farmer's market, designed as a structural framework for a variety of vendors to make their own. The second floor is a food-court serving on-site and regionally grown cuisine. A 3500m² hydroponic greenhouse, chicken and beekeeping area is on the roof. The building is very public and connects the northern urban wetland with the southern plaza.



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Liam Hayward-Mills

False Creek Flats Youth Creative Rec.

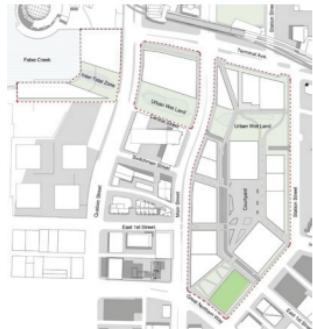
This building will be the new hub for all youth in the Strathcona and Mount Pleasant neighbourhoods. Because youth are coming from such diverse demographics, this experiential facility promotes skills rather than economic class. At a neighbourhood scale this building brings community together from all four corners. At a building scale the central communal zone brings youth from the creative, quiet spaces and the active, loud spaces to create a community of their own. The purpose of this building is:

To create a safe hub for youths of all different ages and backgrounds.
In a way that sparks enthusiasm in creative or active life hobbies.
So that young minds can be inspired and stimulated towards a positive and productive future.



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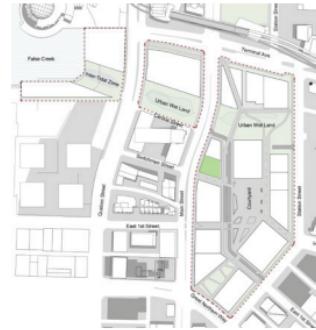




Emily Huser

The Urbanarium

Successful city-building presents huge challenges, but also prodigious opportunities to improve city-dweller's lives. The Urbanarium exposes Vancouverites' ability to influence their city by supporting education, activism, dialogue, innovation, and reflection on the urban condition. The building houses the Vancouver Urbanarium Society, and other organizations like it. A 1:2000 model of the city is displayed on the main floor. Inside, a five-story atrium serves as a forum, weaves between functions supporting different ways of interacting with the urban system, and terminates at an observation platform. The atrium symbolises the integration of the forces governing urbanization, the purpose of the Urbanarium.



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Cassandra Koechlin

False Creek Children's Centre

The False Creek Children's Centre strives to meet the diverse needs of modern families by combining care, education, and therapy. The centre accommodates children aged 0-5 and is inclusive to typical and non-typically developing children. The site aims to rehabilitate the saltmarsh habitat which once flourished there before industrialization, comprising a piece of the proposed greenway which offers ecological storm water management for the Flats. In line with the Reggio Emilia pedagogy, the building aims to engage children with nature by providing opportunities to explore water, light, air, vegetation, and seasonal change. By fostering connections within the centre and to the broader community, the design advocates for the value and respect of its sensitive occupants: children and nature.



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Andrew Martins

zero²

A country off-grid: is it even possible? In my thesis, I explored ways to take Canada's buildings and cities off-grid. After much research, I concluded that the best way to take buildings off-grid is to use the potential energies that the buildings themselves produce: Waste to Energy. However, the most efficient way to create high density, off-grid, cities is to use small micro-grids, which would eliminate reliance on the current environmentally destructive utility grid. This prototypical building represents a key link in the micro-grid: The Center for Urban Energy Exchange. The building would facilitate the conversion of potential energies stored in municipal, organic, and black water waste into district heating and electricity for all the buildings within its district.



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Christopher J. Money

False Creek Flats Aquatic Centre

The False Creek Flats Aquatic Centre is a competition pool focused on swimmers overall health. Connection to water was a big driver with the history of how water once ran through the flats helps to tie the Aquatic Centre into its site. Close proximity to downtown Vancouver allows the Aquatic Centre to be a community hub not only for the local residence but for the Greater Vancouver Area.

The building has a large focus on competitive excellence and training of swimmers. The structures main feature is the undulating roof, comprising of glulam beams sitting on steel beams, supported by hybrid concrete & steel columns. The main vision is to help connect communities in an almost chemical free pool.



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Curtis Renning

Museum of False Creek

The Museum of False Creek exhibits the history, development and destruction of the region. It represents what was, what is, and what can be for the urban and natural environment. The project becomes an instrument in reconnecting, rehabilitating and restoring our relationship between these two historically opposing habitats; to harmonize what is often a compromise. Acting as a mediator, the perforated structure bleeds and permeates into the landscape, creating a variety of opportunities to engage with the surrounding site. Situated on piles with a perimeter of gabions, the site redefines the urban edge and restores the destroyed salt marsh of the historical False Creek. Exhibits educate, inform, and redefine our relationship with the environment through spatial experience, imposed view corridors and materials.



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Benjamin Smith

250 Terminal

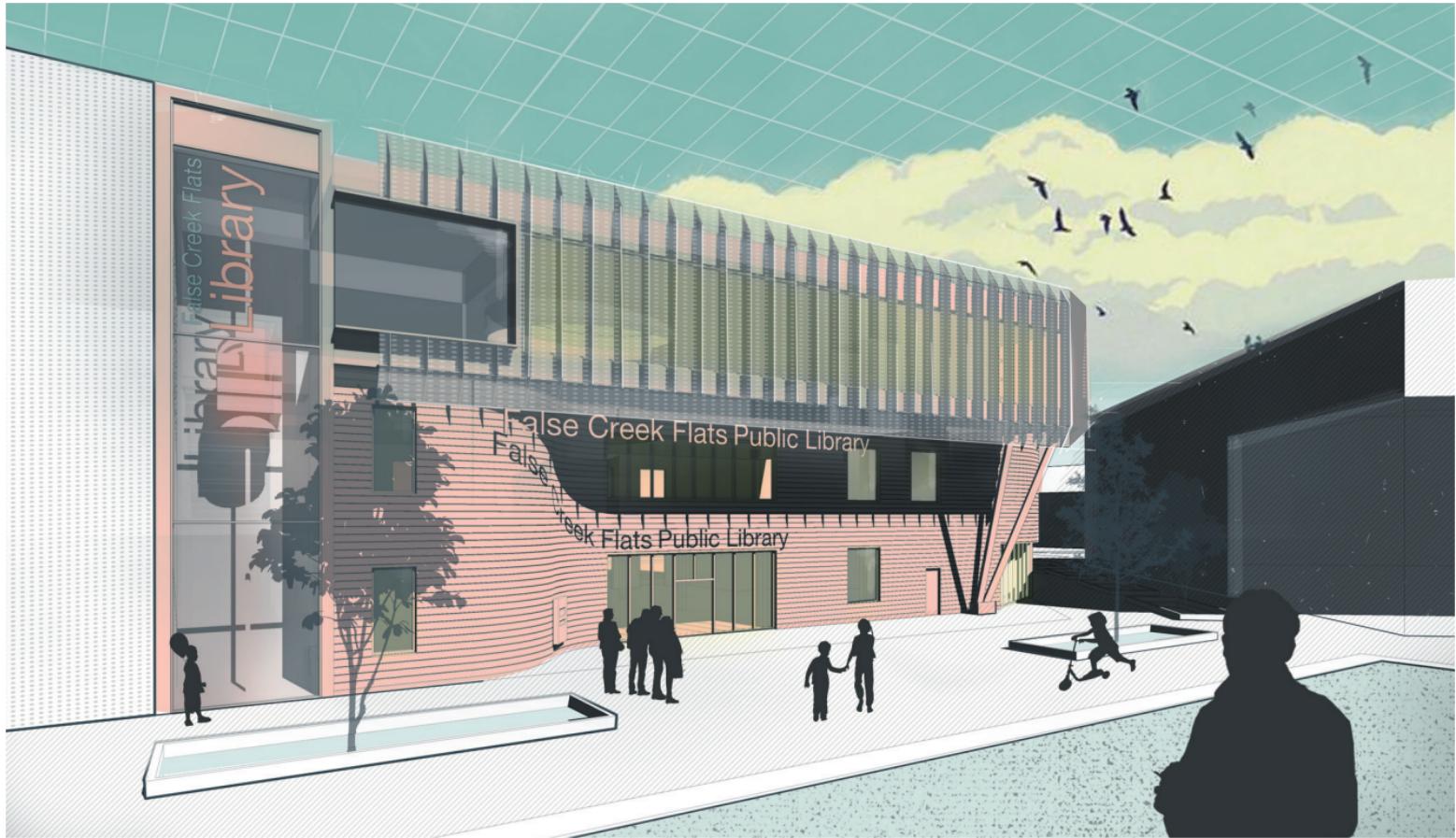
250 Terminal is a response to the drastically changing urban fabric of Vancouver BC, where last century's industrial workplaces are rapidly being replaced to add density. The project proposes an alternative, developing a system to retain existing industrial buildings and their uses as unique work spaces within the downtown core, and to add housing above, enabling a new networked live/work model. With living above plugged into working below, the building provides shared spaces on all levels to promote community. Situated at one of the city's busiest intersections, 250 Terminal proposes a highly visible example of social, environmental and economic sustainability, reinforcing Vancouver's vision of the False Creek Flats as the greenest place to work in the world.



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Lucas Stringer

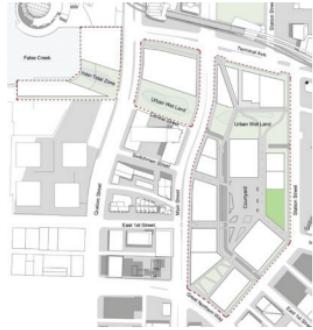
False Creek Flats Public Library

Throughout the ages, libraries have provided for the needs of their communities. By creating informed and empowered societies, Libraries served as catalysts for development and change. It is in this spirit that the False Creek Flats Public Library challenges the assumptions of what a modern library should be. Located centrally on the public plaza of the upcoming Falls Creek Flats Development, the Library aspires to be a hub for the neighborhood, while also supporting the network of Vancouver public libraries with room for an extensive collections expansion. By embracing modern technologies, the Library is reinvented as a creative and cultural hub for the new age, while still delivering on the information-providing roles of the past.



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Maggie Tsai

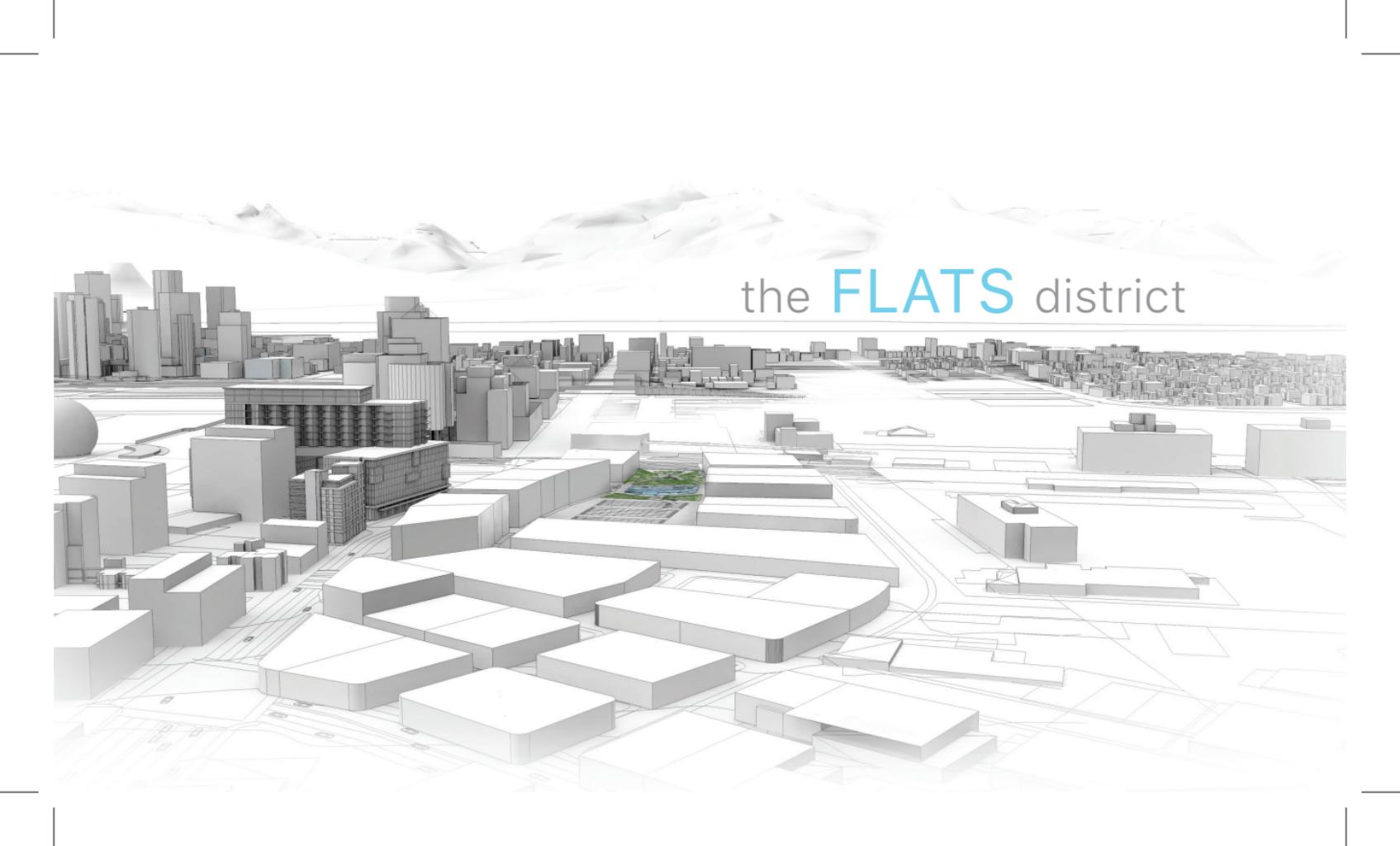
Urban Farm

The Urban Farm addresses the issue of access to fresh food in urban cities. The building takes the user through the three stages of food, growing, preparing, and consuming. The greenhouses and vertical garden spaces grow food typically imported into the city of Vancouver, decreasing the overall carbon footprint of the agriculture industry. The vertical garden spaces use pink lights to grow food. The pink lights are celebrated in a feature on the front north-facing facade. The greenhouses on the south facade are stepped to optimize solar gain while displaying the plants to the street. Occupants can learn how to grow food in the greenhouse and cook in the teaching kitchen. The restaurant serves food harvested from the greenhouse.



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the FLATS district

Masterplan B

The False Creek Flats is an industrial void in Vancouver's rapidly densifying urban fabric. The Flats District challenges the status quo with a re-imagining of a new precinct to serve a flourishing community representative of the area's diversity, history, and culture. By showcasing the existing art warehouse within the context of a new plaza and adding cultural, food, education, and housing facilities, we aim to establish the Flats as a destination within the city.

The historic natural tideline is daylighted into a blueway featuring indigenous flora and serves as an interactive natural stormwater management system. Sustainability initiatives within the community include a district energy system and symbiotic relationships between building programs.



Darrin Chen

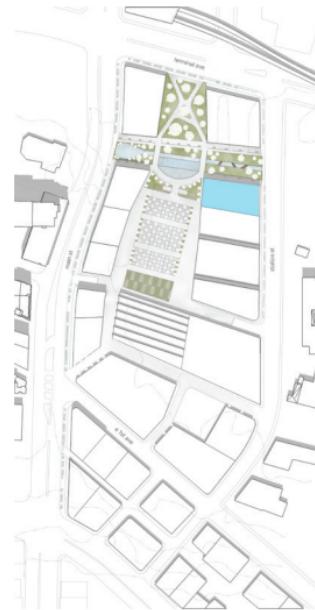
False Creek Childcare Centre

The False Creek Childcare Center embodies two sets of preschoolers and one set of toddlers and infants each. The main emphasis of this building is the experiential effect for the children's development as they are the future of our world. The building not only encompasses the occupants, but also becomes part of the children's experience. Wood is the primary material with many social and environmental benefits. It creates a warm atmosphere for the surrounding environment and is a sustainable material that sequesters carbon. The large and thick framed windows provide an opportunity for children to sit and be part of the architecture. The visibility of the playspace provides a sense of connection to the rest of the plaza and park.



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Kent Chiou

Spokes

Located in the industrial district of False Creek Flats; Spokes is a project that aims to respond to the future needs of Vancouver while addressing the character and culture of the flats today. Spokes is an affordable live-work artist residence that promotes connection and community while facilitating creativity & self-reflection. The spaces within the project are grouped around a central atrium where the artists enjoy an open floor plan and views to the city & suburbs. This project includes double and single studio units, artist cafés and bookstores on the main level, social spaces on the uppermost floor, and an accessible green roof with views to the North Shore mountains.



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Taylor J. Gauley

False Creek Studios + Gallery

The False Creek Gallery + Studios is a place that exposes and connects the public to local artists and encourages community engagement. The building is divided into two main uses; the Gallery and the Studios. The 'commercial' gallery provides the artists with a place to share and sell their work, thus generating the opportunity to support themselves through their creations. The gallery scheme is organized using voids placed along the exterior to stimulate public curiosity and influence circulation throughout the gallery. The translucent façade wraps the studio spaces above and allows the public to see the silhouettes of the artists at night as they work. The studios are organized in a courtyard scheme, creating a communal and secluded terrace space.



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Joel Laurino

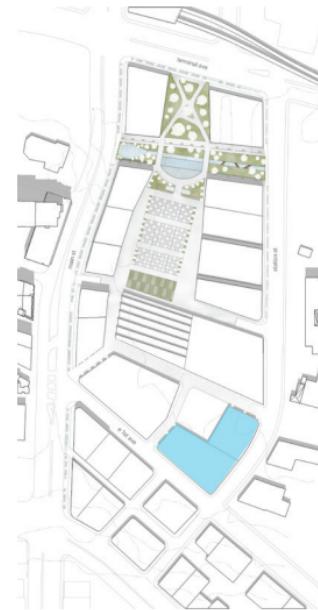
Vancouver's Spirit

When distillation was discovered it was not to produce alcohol which makes you happy, but alcohol that makes you healthy. It was a pure remedy, and that's why they called it Aqua Vitae, the water of life. The alcohol plays no significant part at all, it's not about drinking, but capturing natures circle of life in a single concentrated moment. I believe there is a soul or spirit to the essence of nature which is why I want to craft my spirit as authentically and typically as possible. You can distill every fruit, vegetable, plant, and herb, to set free those secondary hidden tastes and aromas. Distillates stimulate our sensory memories, so therefore a good spirit should touch you at the core, which would leave you with a lasting cognitive experience. The alcohol therefore is not the objective, but merely the medium to convey the flavours.



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Justin Liu

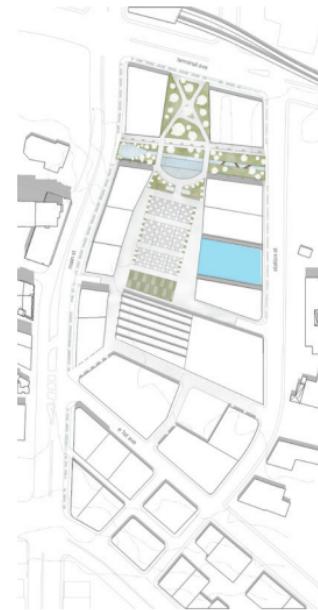
False Creek Public Market

The False Creek Public Market serves as a catalyst for the relationships formed between local growers and consumers, opening opportunities to a display of the diversity in culture, foods and crafts False Creek has to offer. While Vancouver continually prides itself on its impressive collection of world-class cuisines, it also faces some challenges including a growing income gap, rising food costs and diet-related diseases. This project aims to address Vancouver's food strategy by fostering a vibrant community and bringing awareness to the food industry and sustainable farming practices.



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Johnathan Lum

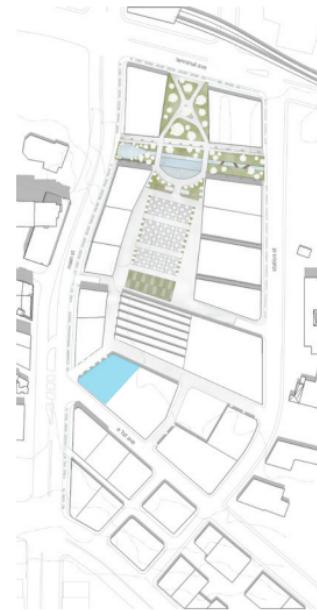
False Creek Performing Arts Centre

The False Creek Performing Arts Centre combines architecture and the performing arts to celebrate and showcase the cultural diversity of the False Creek Flats. Defined by three distinct programs, the facility blends the experiences of dance, music, and theatre, allowing a constant flow of energy and interactions between performers and the public. These interactions encourage opportunities to learn and be inspired by each discipline. Reversing the norm by pushing the performance spaces outwards along the edges of the building creates an experiential public dynamic while focusing the concept of community and collaboration at the center. Contrasting materiality and form creates a seamless transition, blurring the lines between the often exclusive and hidden aspects of the performing arts.



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Aaryn Ma

Refuge + Prospect

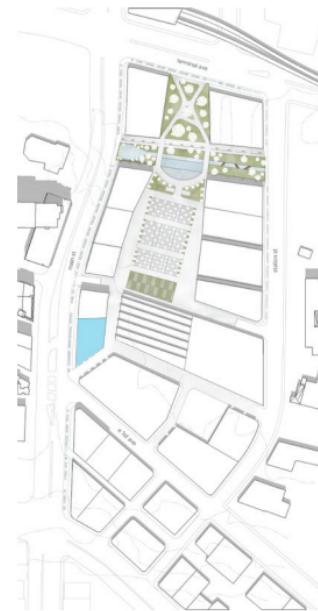
Approximately 700 youth are cut off from government support upon reaching the age of 19 every year in BC. Often faced with barriers attributed to mental health, lack of skills training, or uncompleted education, it is an abrupt transition to adult life and many youth are forced to enroll in ill-equipped adult programs such as welfare, social housing, and more.

To ease this transition, a mixed-use social housing and social enterprise project specialising in the hospitality industry is proposed. Using an adapted Housing First model, residence, education, skills training, and mental health support are provided under one roof to build meaningful connections and grow youths' confidence in a safe and stable environment.



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Wilrose Pingol

SC²

SC² is a senior citizen housing cooperative and social centre in the FLATS District. The project challenges the norms of senior housing that often displace and isolate seniors within their communities. In response, the project aims to promote activity, mobility and a sense of belonging for independent seniors living in the city. Divided into private and public programs, SC² provides spaces for creation, contemplation and rest, distributed at all levels of the building. The senior social centre welcomes everyone, old and young, to partake in intergenerational exchange. Exchanges catalyze mentorship, create meaningful relationships and give seniors opportunities to continue to share their wisdom with all the dwellers of the city.



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Michael Sayachack

False Creek Flats Fine Arts Secondary School

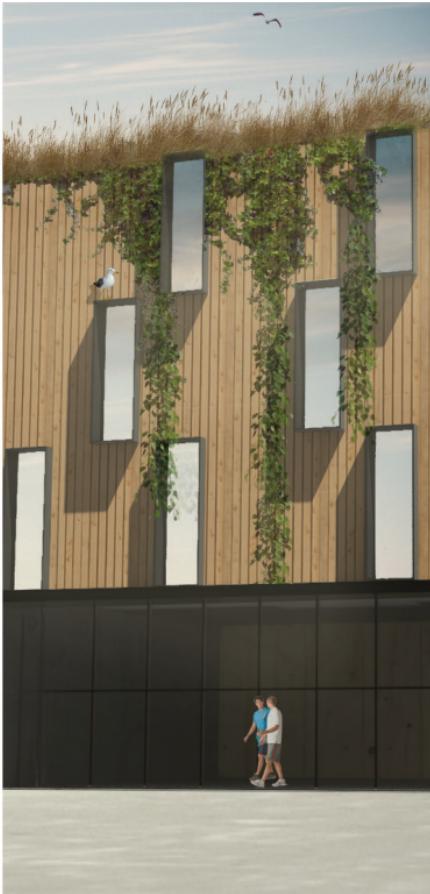
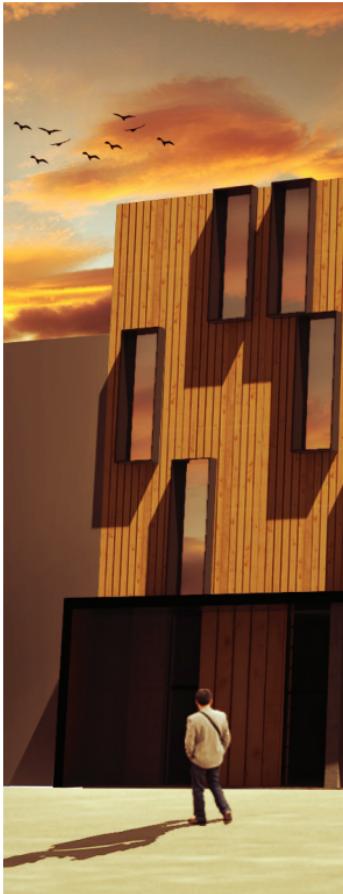
The False Creek Flats Fine Arts Secondary School is a prototype 10-12 public school for 200 students. It aims to address the changing demographics of False Creek Flats and the converging neighbourhoods through the program of fine arts. These include subjects like art, dancing, drama, and music. The main feature of the school is the atrium which acts as a central "street" that runs through the building from west to east. The atrium is the space where students can socialize with each other and trade ideas before they head off to their classes. Students go through the atrium before they can get to their other classes. The building also aims to teach the community about sustainability through the design and through community outreach.



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Steven Schmidt

Seek and Receive

The Seek and Receive project addresses a growing need for mental health facilities and transitional housing in the False Creek Flats. Designed to provide a safe and protected place for treatment and rehabilitation within a master-planned neighborhood, the concept is to create a supportive community. The massing strategy locates the most vulnerable demographic at the center of the site, protecting them with layers of community, framed with transitional housing at the most public edges. Upper floors are residential, with a storefront presence at street level so residents don't feel on display, but rather integrated within the surrounding neighborhood. To manage affordability, units are designed through innovative use of modular prefabricated mass timber, behind a user-operated façade to control light and visibility.



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Katreena Tecson

WastEd

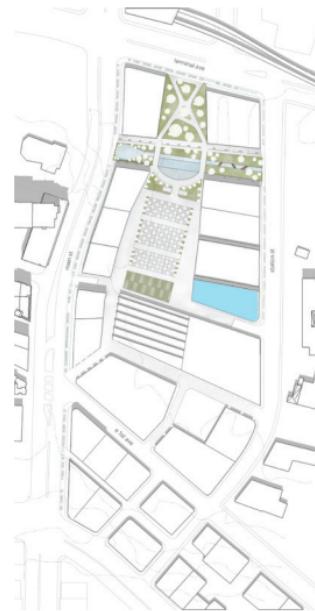
A food education centre that will equip the community with a greater understanding about the story of their food through experience, without generating waste. From growing, to cooking, to eating and preserving. This building aims to influence the surrounding communities and restaurants to make changes and contribute to making our city a more sustainable place by seeing waste as a valuable resource we can reuse.

Cycles and systems are an important aspect of this building. This building will be seen as an organism and as a closed loop system. Systems that are normally considered back of house will be featured and visible to people walking by and integrated actively throughout the building.



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ARSC Faculty



Ron Kato
Program Head



Jody Patterson
Faculty

Consultants

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Mechanical Consultant

Jennifer Sanguinetti, UBC
Rod Yeoh, DIALOG

Structural Consultant

Ilana Danzig, Equilibrium Consulting Inc.
Duane Palibroda, Fast + Epp

Code Consultant

Gord Richards, Jensen Hughes

Energy Modeling Consultant

Martina Soderlund, reLoad Sustainable Design Inc.
Jens Voshage, BCIT